

### **Message from the President**



Dear Guilford College Community:

Welcome to the 2019 Guilford Undergraduate Symposium (GUS). This event is always a source of great pride for Guilford College as we celebrate the remarkable research scholarship of our diversely talented and dedicated students. Every year I am amazed by the depth and creativity of their work, as well as the confident poise they demonstrate in presenting their projects.

GUS vividly illustrates the profound impact of faculty mentorship on student success at Guilford College. Our students gain invaluable insights and practical problem-solving

experience, giving them tremendous advantages in competing for graduate professional school or their first career endeavor.

As we prepare lo launch the Guilford Edge, I anticipate ever-growing participation and innovation in future GUS events as collaborative, team-based projects, such as those on display here today, become central to the educational experience of every Guilford College student.

Thank you io Melanie Lee Brown, Director of Research and Creative Endeavors, as well as the GUS Planning Committee: Robert Whitnell (Co-Chair), David Hildreth, David Limburg, Brenda Swearingin, Mark Dixon, Suzanne Bartels, and Tierney Steelberg, for their hard work, vision, and steadfast commitment to quality undergraduate scholarship opportunities.

Please join me in congratulating our student scholars and their faculty mentors for the exceptional work they have produced together.

Sincerely,
Jane K. Fernandes
President

### **Message from the Provost**

#### Dear Guilford Community:

Welcome to the Guilford Undergraduate Symposium (GUS)! GUS provides an opportunity for students to showcase their scholarly and creative work to the entire community. Guilford students will be engaging in conference presentations, exhibitions of visual work, panel discussions, and performances. This work can originate from coursework or individually mentored projects at Guilford, and at other institutions here and abroad. The timing of GUS is propitious, coming at the end of the academic term when it is good to be reminded of the accomplishments of all our students. It also affords

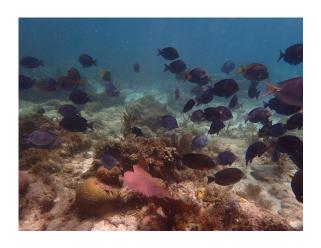


faculty and staff the chance to reflect on the growth and progress of our educational journey with students.

GUS is also an opportunity to see, firsthand, the connections between the scholarly and artistic interests of our community. Our students are addressing interesting problems that require a variety of intellectual and artistic approaches that transcend traditional disciplinary boundaries. Guilford has long been at the forefront of this approach. In recent years, many institutions have established interdisciplinarity as a goal for their academic programs. At Guilford, the faculty and students have long embraced this partnership of inquiry and nowhere is this more evident than at GUS.

More than anything, GUS is a great reminder of the exceptional work underway in our community. Thank you for joining us today and celebrating what makes Guilford exceptional.

Frank A. Boyd



### Impacts of Hurricanes on Fish Biodiversity in St. John, USVI

Caleb Amstutz
Biology, Environmental Studies

Faculty sponsor: Christine Stracey-Richard • Project mentor: C. Morgan Wilson

Session: Short Talks: Biology, Biology and Environmental Studies, Chemistry, Computing Technology and Information Systems, Mathematics Location: Leak Room • Time: 4:45 PM

Caribbean coral reefs are subject to a high rate of biological and anthropogenic disruptions. Hurricanes function as large-scale natural disturbances which have fundamentally shaped reef ecosystems. Studies have suggested that hurricanes act as intermediate disturbances on coral reefs by promoting high levels biodiversity through moderate-levels of physical alterations. Although evolving under frequent hurricane activity, Caribbean coral communities may experience negative shifts in ecosystem functionality if hurricanes increase in intensity. In September 2017, the U.S. Virgin Islands were struck by two category five hurricanes, Irma and Maria. This study investigated the changes in reef fish biodiversity pre- and post-hurricane in St. John, USVI with consideration noted on species from various trophic levels. Average species richness increased in post-hurricane environments with notable rises in less-mobile herbivore and predator populations. Critical trophic groups like herbivore, spongivore, and planktivores did not experience obvious impacts from Irma and Maria, suggesting the patchiness and variability of hurricane on reefs. Long-term monitoring programs on reef fish populations will therefore be necessary to quantify the relationships between hurricane intensity and reef fish biodiversity in all trophic levels.

### The Intersection of Quaker Practice and Productivity

Allison Andrade Religious Studies, Quaker Studies

Faculty sponsor: Wess Daniels

Session: Short Talks: African and African American Studies and History, German and American History, German and Women's, Gender, and Sexuality Studies, History, Religious Studies and Quaker Studies

Location: Experimental Classroom • Time: 1:15 PM

In this paper, I connect my learnings from the semester about Quaker history and practice to ecstatic experience and the productivity that can come as a result. To create this connection, Quaker practices are framed as unique experiences that can help todays Friends live up to their highest potential in our globalized, busy reality. Meeting can fall into three of the four categories of ecstatic experience: flow

states, contemplative and mystical states, and communal states. My research reaches across many disciplines. This paper utilizes work and research done by Tiago Forte, an authority on productivity, and Abraham Maslow's research about the relationship between the founders of religious movements and peak experiences. Building on these connections between religious movements, peak experiences, and flow states, I show how Quakerism could be a more approachable religious tradition given the rise of the "spiritual but not religious" context in the West. Quaker communities tend not to be dogmatic and support individual spiritual growth and connection to a spiritual power. Arguably, Quakerism is attractive to this generation because waiting worship could help folks perform better at work, interpersonally, and spiritually.

### **Exploring the Nature/Culture Interface**

Emily Atwell, Sonya Brunk, Cary Hardwick, Ginger Mandel, Olivia Winder Sociology & Anthropology

Faculty sponsor: Tom Guthrie

Session: 1. Exploring the Nature/Culture Interface; 2. Living My Life Location: Art Gallery • Time: 12:45 PM



Humans imagine and interact with their natural environments in culturally specific ways. This panel presents a collection of "artifacts" produced by people that tell us something about how members of our society view and engage with the non-human world. Each of these artifacts reveals particular relationships, values, ideologies, and worldviews and illustrates the blurry line between nature and culture.

### **Global Health Education Through Podcasting**

PBH 300 Global Health Course: Berenice Fuentes-Juarez, Kendra Guzman, Jacquelyn Fulk, Natalie Conrad, Laura Quiceno, Caterina Illiano, Kate Glenn, McKinley Durham, Hannah Kaplan, Candice Burch, Hayden Young, Katherine Boyd Public Health

Faculty sponsor: Aleks Babić

Session: PBH 300: Global Health Podcasts
Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

**Jacquelyn Fulk - The Aging Population in Japan**: My podcast is about the aging population in Japan. I will focus on factors of what's causing the elderly population to rise as well as what the government is trying to doing about it. Included are interviews with exchange students from Japan attending Guilford College.

Natalie Conrad - Preventing violence from spreading across the globe: This is a podcast about the violent attacks on healthcare facilities in Syria and its impact on healthcare workers in the United States. There are two interviews within the podcast first from a Syrian refugee, second from a US healthcare worker. This podcast focuses on how we as the United States can learn from the experiences within Syria in preventing violence from spreading across the globe.

**Laura Quiceno:** My podcast is going to be discussing about El Bronx in Colombia Bogota. I will be interviewing a grandmother who worked in El bronx for many years. El Bronx is a place where homelessness is a big problem that was being ignored by many. In other words el bronx is not even seen as a human rights problem it's just seen as a problem for society. In my podcast I am hoping to inform others about concerns with homeless people that are being portrayed just as criminals and not as needing help from people in their society.

Candice Burch - Hypertension in Ghana and United States: My podcast is going to be focused on Hypertension in Ghana as well as the United States. I wanted to do the podcast about this particular topic because I feel that it is important to bring awareness to a issue that is not talked about a lot. Also, Hypertension is considered to be a silent killer. Informing others about possible symptoms, treatment and other things associated with Hypertension would possibly help control the amount of premature deaths associated with Hypertension as well as the amount of people that have it. Therefore, I feel it is very important for people to not only listen to my podcast but to really take into consideration the information that is given.

McKinley Durham - Prevalence of AIDS in Malawi: This podcast includes a description of HIV/AIDS, and the prevalence of this disease in the Malawi compared to the United States and Angola. I will be explaining the factors as to why this is so prevalent in a small country in Africa. Along with my research of this issue, I interviewed Scott Trent, who works locally at the Triad Health Project in Greensboro. Scott Trent actively works to treat and prevent this disease from spreading within his community. He is a very reliable source for domestic issues about HIV/AIDS. I will compare his knowledge of this disease to my knowledge of Malawi. Music credits are to Free Music Archive.

Katherine Boyd & Hayden Young - A Lifestyle Change: Chronic Fatigue Syndrome (CFS): So what is Chronic Fatigue Syndrome / Myalgic Encephalomyelitis or you may know it as Chronic Fatigue Syndrome. CFS is a disorder characterized by extreme fatigue that can't be categorized by a medical diagnosis. Patients with CFS all experience a common thread, it's the loss of their ability to perform daily activities. Due to the extreme fatigue among other symptoms people with CFS/ME are forced to redevelop what's important in their lives on a daily basis. This podcast provides important information on the triggers and symptoms associated with this illness. As well as some of the common treatments and interpretations of CFS by the medical professionals in the U.S., UK and Sweden. More importantly, in this podcast Evelyn tells her own journey of discovery and acceptance of CFS/ ME. Evelyn's journey relates to the stigma received from doctors and hospital staff. The biomedical model

of health continues to be the predominant model by physicians in diagnosing diseases. The biomedical model of health assumes that the body is a machine and we need to fix the machine. It focuses on purely biological factors and excludes psychological, environmental and social influences. This approach prevents funding into research and treatments for CFS / ME. We chose to produce a podcast for CFS due to the lack of knowledge, funding, and research.

#### **Layered Conversation**

Raina Baier Art

Faculty sponsor: Mark Dixon

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

### Good Answers to Bad Questions: Practical Robust Regression by Stochastic Ordering

Jeremy Bante Mathematics

Faculty sponsor: Ben Marlin

Session: Short Talks: Biology, Biology and Environmental Studies, Chemistry, Computing Technology and Information Systems, Mathematics

Location: Leak Room • Time: 4:30 PM

We develop mathematical models of normative distributional priorities and apply one such model as an optimization criterion for statistical regression.

Numerical methods in data analysis express decision priorities through their optimization criteria. Analysts inform consequential decisions every day using built-in software defaults rather than matching model fitting criteria with tangible goals. The stochastic ordering expressed by the Wilcoxon-Mann-Whitney U and Cliff's d statistics accurately models "the greatest good for the greatest number." Applying this criterion to regression residuals creates an estimator that tolerates model misspecification and contaminated data. These features make it an appealing default compared to least squares.

We empirically evaluate the sampling performance of our model on synthetic and real-world data sets. This evaluation compares different estimators in realistic scenarios outside scholarly research. We treat estimators as approximations of potentially non-linear distributions, not as generative population models. Further, we compare estimators on the basis of probability level sets and stochastic ordering

of errors, which are more directly relevant for inference.

Robust regression has not enjoyed widespread adoption because it is slow to calculate. We exploit properties of our optimization criterion in a geometric dual representation to develop new algorithms with practical computational costs.

### Dark: A Walk through the German Fairy Tale Forest

Caleb Bausman, Dylan Byers, Quinn Candelaria, Jacob Falzone, Enrique Gudino de Grote, Lana Heltzel, Jameson Lynch, Anika Rueppell, Dafne Sanchez Aguirre, Finn Shepherd, Nita Tyndall, Jen Gonzalez Reyes German

Faculty sponsor: David Limburg

Session: Dark: A Walk through the German Fairy Tale Forest Location: Experimental Classroom • Time: 3:45-5:15

German 400 Seminar students present their research on topics related to darkness in German art, music and literature. Together, the session represents a walk through the woods of the Brothers Grimm and German Romanticism, including some time travel through wormholes in dark caverns, as each presenter explores a different item they have discovered in the treasure chest of German literature and culture. Students will present in German, with live simultaneous translating available via headphones.

### **How the Brothers Grimm Reacted to a Changing World**

Caleb Bausman History

Faculty sponsor: Damon Akins

Session: Short Talks and Panel Discussions: Economics, German and History, History, Psychology Location: IDEA Incubator • Time: 9:15 AM

#### **Bonner Capstone**

Abigail Bekele Art, Bonner Service

Faculty sponsor: James Shields

Session: Bonner Senior Presentations Location: Leak Room • Time: 2:45 PM

### **Food Insecurity on College Campuses**

Elizabeth Helen Bell, Taylor Wells-Tucker, Chloe Wells
Principled Problem Solving

Faculty sponsor: Sonalini Sapra

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

Have you ever experienced weeks in college where you're living off of Ramen? Have you ever struggled with the hours of the Caf? These are just a couple of factors of food insecurity that college students experience every year. According to our survey, about 37% of student respondents answered "no" to having consistent access to healthy nutritious food, which means these folks are experiencing food insecurity here at Guilford. Come to the PPS Scholars poster presentation to find out more!

### **Every Campus a Refuge Project (Group Presentation): Maternal Health**

Robin Bigaj Every Campus A Refuge

Faculty sponsor: Diya Abdo

Session: ECAR

Location: Experimental Classroom • Time: 3:00 PM

Refugees are faced with several challenges following their arrival to the U.S. due to language and cultural barriers. Those who are pregnant and are mothers are especially vulnerable as they face specific challenges that impact their accessibility to safe, effective, and sufficient maternal healthcare

and resources. For this project I worked through Every Campus a Refuge to collect information on the experiences of pregnant people and mothers of refugee status in Greensboro with the goal of creating a tool and a kit of helpful materials to support ECAR mothers. With the help of an interpreter, I and my partner, Bree Diakite, conducted semi-structured interviews with two past ECAR guests who gave birth in Greensboro soon after their arrival and are now living in the U.S. as mothers. Our findings suggest that a better understanding of conventional U.S. maternal health and birth procedures, diagnoses, treatments and hospital environment, a comprehensive list of available resources for newcomer mothers and pregnant people in Greensboro, and materials such as diapers would be beneficial for ECAR guests who are pregnant and/or mothers and help to improve their experiences here in Greensboro. A booklet translated into several languages with information about conventional U.S. maternal health practices was produced and will be given to ECAR. Additionally, a kit of materials for mothers was also constructed and given to ECAR with the intention of being consistently restocked.

## Postpartum Abnormalities in the Montagnard Communities of Greensboro, NC Robin Bigaj Biology

Faculty sponsor: Michele Malotky

Session: Posters and Exhibitions 1: Art, Biology, Criminal Justice and Psychology, Experience Design, Geology, Physics and Electrical Systems, Religious Studies and Quaker Studies, Sustainable Food Systems and History

Location: Main Level Poster and Exhibition Space • Time: 10:45-12:15

### Maternal Health in the Montagnard Communities: Postpartum Abnormalities and Traditional Postpartum Practices

Robin Bigaj, H'Roseline Rcom Biology, Public Health

Faculty sponsor: Michele Malotky

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

Montagnards, the indigenous peoples of the Central Highlands of Vietnam, began arriving in the U.S. as refugees following persecution after the Vietnam war. The Montagnard population of 9,000 in Greensboro, NC suffer health disparities due to limited health care, food, and education access. Anecdotal evidence suggests a higher than average incidence of postpartum abnormalities in both

mothers and infants as well as traditional maternal health practices that may impact health. It is of vital importance these issues be further investigated and their causes identified. My research investigates the following questions: 1) What recurring postpartum abnormalities have Montagnards in Greensboro, NC experienced? 2) What are the traditional postpartum practices among Montagnards in Greensboro, NC and how do they affect health? With assistance of an interpreter, in-home interviews were conducted with Montagnard mothers who gave birth in Vietnam or in the U.S. regarding postpartum health and traditional postpartum nutritional and medicinal practices and analyzed to identify patterns. Data on births in Greensboro was obtained from the State Center for Health Statistics. The findings of this study provide necessary background for preserving Montagnard culture and adequately addressing current maternal health issues.



#### **UPROOT**

Natalie Bodian, Erin Kye, Mikayla Jones, Margaret Larson, Jayson Thorpe, Mia Masucci

Art

Faculty sponsor: Mark Dixon

Session: Special exhibitions

Location: Main Level Poster and Exhibition Space • Time: All day

The Art Thesis students will share a promotional video made by thesis student, Erin Kye, featuring the details of the different disciplines the thesis students work in. The promotional video is being shown in conjunction with the Thesis exhibition, UPROOT, opening on April 19th, 5-7pm in the Bauman Galleries of Founders Hall.



### Promoting Dynamic Agroforestry with Missouri Botanical Garden in the Makirovana Tsihomanaomby Forest

Samantha Brooks
Environmental Studies, French

Faculty sponsor: Holly Peterson • Project mentor: Melanie Lee-Brown

Session: Posters and Exhibitions 3: Art, Creative Writing and Eating Disorders, Economics and Education Studies, Environmental Studies and French, Health Sciences, MLSP, Principled Problem Solving and Honors Contracted Course, Religious Studies

Location: Main Level Poster and Exhibition Space • Time: 2:15-3:30

During the spring of 2018, I studied abroad with the School for International Training's Biodiversity and Natural Resource Management program in Madagascar. My research focused on ecological conservation, dynamic agroforestry, and sustainable agriculture. The organization constructed this program around the traditional Malagasy agricultural practices, which, along with the country's rapid population growth, a drastic depletion of many floral and faunal species has occurred. These practices have increased erosion rates, further injuring the ecosystem. Here, I completed an internship with the Missouri Botanical Garden (MBG) in a commune where life ways depend on the Makirovana Tsihomanomby Forest. I learned about MBG's dynamic agroforestry project and promoted the implementation of sustainable agricultural techniques while respecting community values. My methods included semi-structured interviews with community members, observations of plant nurseries, and installing an agroforestry plot to better understand the practice of sustainable farming. A newsletter and a photo story of MBG's agroforestry participants were created to raise awareness of this project. These efforts have provided an ideal platform for furthering the knowledge and acceptance of dynamic agroforestry while respecting the Malagasy culture. Community members are open to sustainable agricultural methodologies that will boost their economic development while conserving the uniqueness of their homeland.

### Behavioral and Spectrographic Analysis of Chatter: A Novel Vocalization in Northern Mockingbirds (Mimus polyglottos)

Shauna Brown
Biology

Faculty sponsor: Christine Stracey

Session: Short Talks: Biology, Biology and Environmental Studies, Chemistry, Computing Technology

and Information Systems, Mathematics Location: Leak Room • Time: 4:15 PM

# Interrogating the Narrative of the "Strong Black Woman" in Academia: Documenting the Experiences of Black Women Professors in the Piedmont Triad.

Sarena Ezell
Community and Justice Studies

Faculty sponsor: Krista Craven

Session: Short Talks: Community and Justice Studies, Community and Justice Studies and Education Studies, Economics, Philosophy and Women's, Gender, and Sexuality Studies, Psychology

Location: IDEA Incubator • Time: 1:15 PM



The notion that Black women are strong and can handle anything is a cultural narrative that shapes Black women's personal and professional lives (Beauboeuf-Lafontant, 2009; Collins, 2000). Beauboeuf-Lafontant (2009) suggests that this concept of the "strong Black women" rationalizes and perpetuates the unequal and unjust conditions affecting Black women's material and social well-being. Within the academic realm, this notion of the strong Black woman also exists. Collins (2013) documents how Black women often take on more material and emotional labor than their colleagues when teaching, advising, and engaging in faculty governance, and that it is assumed that they are wholly equipped to do so. Despite the many roles undertaken by Black women in the academy, Collins suggests that Black women often have a limited role in shaping institutional policies and curriculum, which can hinder the creation of educational contexts that are fully inclusive and supportive of all students, staff, and faculty. The purpose of this study is to assess whether and how the narrative of the "strong Black woman" plays a role in the way Black female professors navigate the academic spaces in which they work. 10 Black women from a range of public and private institutions in the Piedmont Triad, including predominantly white institutions and historically Black colleges and universities, were recruited to participate in this study.

### Navigating Diverse Societies: The Role of Collaborative Pedagogy in Community Problem Solving

Austin Bryla, Ramya Krishna Community and Justice Studies, Education Studies

Faculty sponsor: Wess Daniels

Session: Short Talks: Community and Justice Studies, Community and Justice Studies and Education Studies, Economics, Philosophy and Women's, Gender, and Sexuality Studies, Psychology Location: IDEA Incubator • Time: 1:30 PM

We are granted intermediary roles that require us to navigate collaborative pedagogy and engagement while achieving continuous intellectual, moral, and spiritual development, particularly as it relates to ethical problem solving and dismantling hierarchies. Our objective is to explore how we can accomplish societal goals while retaining the human element in reaching understanding with people.

We propose utilizing the power of narrative in voicing experiences and embracing assets-based community development as avenues for attaining collective understanding, two time-honored traditions that serve to illuminate every individual's inner light while building a community committed to personal growth and social change.

### Un Viaje a España

Elena Carabeau, Ethan Santana, Carly Herndon Spanish

Faculty sponsor: Karen Spira

Session: Spanish presentations and capstone Location: Experimental Classroom • Time: 10:45 AM

English: Three strangers on their way to Madrid—a clown, a lion trainer, and a magician—become friends when they strike up a conversation in the boarding line for their plane.

Español: Tres extraños de camino a Madrid—una payasa, una entrenadora de leones y un mago—se hacen amigos cuando entablan una conversación en la fila de embarque de su avión.

### **Cystic Fibrosis and Spina Bifida: A Comparison**

Makayla Carver
Biology

Faculty sponsor: Melanie Lee-Brown

Session: Posters and Exhibitions 1: Art, Biology, Criminal Justice and Psychology, Experience Design, Geology, Physics and Electrical Systems, Religious Studies and Quaker Studies, Sustainable Food Systems and History

Location: Main Level Poster and Exhibition Space • Time: 10:45-12:15

Spina Bifida (SB) is a rare, but treatable spinal cord malformation that affects the neural tube of an embryo in utero. Cystic Fibrosis (CF) is an inherited disease caused by a mutation in one of thousands of genes found in the DNA of everyone. Because Spina Bifida and Cystic Fibrosis affect different areas of the body, the genetics and treatments for both disorders will be assessed. There are almost 2000 variants in the dysfunction of the CFTR gene. Around 40 percent are predicted to cause a substitution of a single amino acid, 35 percent are expected to alter RNA processing, three percent involve large rearrangements of CFTR, one percent affects the promoter region in the sequencing, 14 percent seem to be neutral variants, and another six percent is unclear. Spina Bifida is a congenital malformation where the spinal column is split as a result of the failed closure of the embryonic neural tube, during the fourth week after fertilization. The most common type of SB is a myelomeningocele (MMC). This results from the failed closure of the caudal end (tail end) of the neural tube that causes an open lesion or sac that contains abnormal spinal cord cells, nerve roots, meninges, vertebral bodies, and skin. Many individuals with MMC most often show motor and sensory deficits below the level of the lesion, which may result in lower limb weakness or paralysis that may prevent walking and the lack of sensation may increase the risk of pressure sores.

#### Women of Color in the U.S.: Education

Kylee Crook, Katie Claggett Sociology & Anthropology

Faculty sponsor: Naadiya Hasan

Session: Women of Color in the U.S. Location: Art Gallery • Time: 11:45 AM

This lesson aims to provide information to the public about the ways that women of color exert agency in the social institution of Education as both students and faculty members. We will question dominant narratives of knowledge, considering how and why that knowledge is reproduced and validated. Audience members will learn about different theories of knowledge, particularly as they apply to higher education in the United States. Further, we will look at the experiences of women of color as faculty and students, discussing both the marginalization of these women and their responses. Through

questioning which knowledge is validated as well as the experiences and participation of women of color in Higher Education, we can better understand patterns of inequality. This will help participants consider how validating more diverse types of knowledge will expand the potential of education as a whole in our society. Overall, the lesson will prove how intersectional analyses of higher education are vital in order to question how education could be structured differently to dismantle taken-for-granted inequalities.

### **Evaluating the Successes and Failures of Environmental YA Literature**

Alice Croom
English, Environmental Studies

Faculty sponsor: Sonalini Sapra

Session: Short Talks, Film Screening & Teach-in: Education Studies, English and Environmental Studies, MLSP, Psychology and Mass Media

Location: IDEA Incubator • Time: 3:45 PM

The books we read when we are younger stay with us as we grow, until the very end. An end, that according to a recent International Panel on Climate Change (IPCC) report might be sooner than we had previously expected. Environmentalism is not an easy bandwagon to jump on, in part due to the fear of deep sacrifices necessary to reverse adverse effects on our natural surroundings. Those fears makes it crucial for activists and teachers alike to identify the ways in which children learn to value nature and their environments. The field of American young adult literature (YA) has been aware of the impact of stories on young minds for a long time, which is why we can find trends in the most successful YA books related to the methods in which authors drill values into their readers' minds. However, though YA literature has mastered the teaching of moral values like humility, hard-work, and service, writers still seem to struggle with promoting a sense of environmental responsibility. In this paper, I will examine some of the most prominent YA environmental literature and analyze the ways in which the author attempts to instill a sense of environmental responsibility in the reader.

#### Women of Color in the U.S.: Health Care

Terry Daniels, Ian Kratzke Sociology & Anthropology

Faculty sponsor: Naadiya Hasan

Session: Women of Color in the U.S. Location: Art Gallery • Time: 10:45 AM

A common trend found within scholarly articles about nursing is that nurses are underpaid, understaffed, and overworked – even after having obtained degrees. Nursing is a profession that is hierarchical, with patterns of inequality influenced by both gender and race. Statistically, nurses tend to be white and female, however the experiences that women of color have within this institution are shaped by exclusion and restriction. While being culturally and structurally devalued, these women attempt to work within and against the barriers created for them. In looking at these women of color and their responses to the systems of oppression we seek to learn how to reform the healthcare system to better support black and Asian immigrant nurses and their patients.

## We Awake Screaming -- A Response to Jan Fabre's 'Salvator Mundi' Julia de Wit Art

Faculty sponsor: Mark Dixon

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

This piece is a response to the Belgian artist Jan Fabre and his piece 'Salvator Mundi (Savior of the World),' which in itself is a response to many painted depictions of Jesus Christ holding a globe. Looking at both the work of Fabre and various 'Salvator Mundi' paintings, I have created a piece that is materially similar to the work of Fabre, but thematically closer to the more general concept of the 'Salvator Mundi'. Symbols are not only contained to the Biblical reference. The hand that releases a swarm of cicadas rises to mimic the positioning of Jesus' hand, or the hand of one about to do the sign of the cross follows suite; The cicadas themselves, and as objects, are interesting, and don't directly follow the religious narrative -- their germination lasts years, their lives last days, and they awake screaming.

### **Every Campus A Refuge Projects (group presentation): Linguistic Affairs**

Bree Diakite Every Campus A Refuge

Faculty sponsor: Diya Abdo

Session: ECAR

Location: Experimental Classroom • Time: 2:30 PM

Coming into a country as a refugee and not being able to speak the common language can cause multiple mishaps. In today's world, effective use of language helps us in our interpersonal

relationships at home and at work. Because language is an important aspect of communication and conversation that many refugees don't spend or have enough time to develop. Nelson Mandela has a famous quote "If you talk to a man in a language he understands it goes to his head. If you talk to him in his language it goes to his heart" for a good reason. Since being in Senegal I have developed a new understanding and passion for language learning. Not only does it allow you to connect with others but it challenges you to get out of your comfort zone and interact in a tongue you may not yet be comfortable in. By having this booklet which will be translated in the most common languages that our guest speak (Arabic, French, and Swahili). While doing this project I really enjoyed being able to use my experience of studying abroad with the different languages I learned. It will contribute to the creation of the ECAR community by giving every incoming guest a "head start" in the future.

#### Homelessness in Greensboro: The Experience Revealed

Dwayne Duncan Jr., Austin Bryla, Crystal Crump Community and Justice Studies

Faculty sponsor: Krista Craven

Session: Short Talks: Community and Justice Studies Capstone, Political Science, MLSP

Location: Art Gallery • Time: 9:00 AM

In the wake of policies and sentiments expressed by elected officials in Greensboro regarding access to public spaces for individuals experiencing homelessness, the Homeless Union of Greensboro has worked to make change for people experiencing homelessness in the Triad. Part of this work entails ascertaining the key issues affecting people experiencing homelessness in Greensboro. As such, the Homeless Union of Greensboro adapted and shortened an existing survey tool with the help of UNCG and Guilford College affiliates. Members of HUG worked with Guilford Students to survey people who are currently experiencing homelessness in Greensboro. These surveys were collected to provide a foundation for a Participatory Action Research (PAR) project. Our Capstone research team conducted a preliminary analysis of the survey data and found that there are some key trends in the data that warranted further attention and investigation, which we further explored through interactive lunch-and-learn sessions to collect more detailed nuanced data about individuals experiences of homelessness. Our findings uncovered several themes regarding experiences with police interaction, the legal system, and shelters. Additionally, these sessions aimed to identify strategies to address these local long-standing issues and improve the experiences of those who are experiencing homelessness in Greensboro.

### Pollution and Liberation: Women's Bodies and the Constructions of Purity and Pollution in Tibet and the Himalayas

Billie Dunn-McMartin Religious Studies

Faculty sponsor: Eric Mortensen

Session: Posters and Exhibitions 3: Art, Creative Writing and Eating Disorders, Economics and Education Studies, Environmental Studies and French, Health Sciences, MLSP, Principled Problem Solving and Honors Contracted Course, Religious Studies

Location: Main Level Poster and Exhibition Space • Time: 2:15-3:30

### Self-Care Sundays: Discussing Mental Health and Self Care on College Campuses

Jed Edwards, Kyia O'Neal, Hayden Young Multicultural Leadership Scholarship

Faculty sponsor: Paula Hernandez

Session: BIOL 291 class research presentation/MLSP Panel Discussion

Location: Art Gallery • Time: 3:45 PM

The MLSP Mental Health team has been hosting a series of Self-Care programs aimed at exploring unique and easily-accessible modes of self-care for college students. Coupled with a series of discussion questions about mental health in specific communities and the impact of college lifestyle on mental stability, these events were intended to serve as starting point for many student's exploration of how to take better care of themselves on a regular basis. Join us as we as continue the discussion with the GUS audience with an engaging, interactive activity.

#### **Geometric Mural**

John Ellis Art

Faculty sponsor: Antoine Williams

Session: Posters and Exhibitions 3: Art, Creative Writing and Eating Disorders, Economics and Education Studies, Environmental Studies and French, Health Sciences, MLSP, Principled Problem Solving and Honors Contracted Course, Religious Studies

Location: Main Level Poster and Exhibition Space • Time: 2:15-3:30

### The White Rose and the Politics of War-remembrance in postwar Germany (1945-1952)

Jacob Falzone German, History

Faculty sponsor: Phil Slaby

Session: Short Talks and Panel Discussions: Economics, German and History, History, Psychology Location: IDEA Incubator • Time: 9:00 AM

#### **Call and Response - David Smith**

Michael Fernald

Art

Faculty sponsor: Mark Dixon

Session: Posters and Exhibitions 3: Art, Creative Writing and Eating Disorders, Economics and Education Studies, Environmental Studies and French, Health Sciences, MLSP, Principled Problem Solving and Honors Contracted Course, Religious Studies

Location: Main Level Poster and Exhibition Space • Time: 2:15-3:30



## Pronoun Announcement as Cis-Appeasement: A Look at Alternative Gender Performativity Through Negative Dialects

Samantha Fitzgerald
Philosophy, Women's, Gender, and Sexuality Studies

Faculty sponsor: Ryan Artrip

Session: Short Talks: Community and Justice Studies, Community and Justice Studies and Education Studies, Economics, Philosophy and Women's, Gender, and Sexuality Studies, Psychology Location: IDEA Incubator • Time: 1:00 PM

In this presentation, I will present the audience with an introduction to negative queer thinking. Queer negativity is a mode of thought which emphasizes the existence of "the queer" as a dialectical negation of that which is socially affirmed. I will present this queer negativity through a model of negative dialects as established by Theodor Adorno. Using this, I will then utilize the case of pronoun

announcement to illustrate this manner of thought. I will present an argument which claims that the practice of pronoun announcement is a means by which alternative gender performance (as established by Judith Butler) is forced into a dialectical relationship with gender-conforming performativity. In other words, I will be arguing that pronoun announcement is a means by which alternative gender performativity becomes normalized as an extension of cis-normativity; a means by which queer folks are forced to reveal themselves to cis-society. Other ideas such as artificial negativity (Paul Piccone/Timothy W. Luke) and queer nihilism (Alyson Escalante) will be explored in relation to the topic. This all is done to reveal the underlying violence of a practice thought to be progressive, and introduce a dialogue concerning the restructuring or the doing away with the practice of announcing one's pronouns.

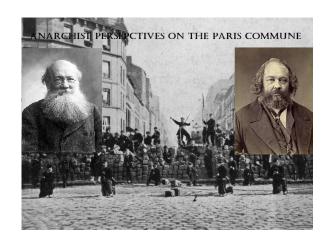
### Anarchist Perspectives on the Paris Commune of 1871

Samantha Fitzgerald Political Science, History

Faculty sponsor: Philip Slaby

Session: Short Talks and Panel Discussions: History, MLSP, Political Science and History, Community and Justice Studies

Location: Experimental Classroom • Time: 9:15 AM



The Paris Commune of 1871 birthed the modern socialist tradition. It is a sacred event in socialist history, and its impact can be felt wherever a red flag is raised and the Internationale is sung. It has been equally impactful across the left, being lauded by both Leninists and Anarchists alike. While the influence of the Commune is most apparent in both the politics and symbolism of the U.S.S.R., it also has been historically cited by anarchists as the one of the first occurrences of organized anarchist praxis. Anarchists such as Mikhail Bakunin and Peter Kropotkin have offered critiques of the Commune, describing an underlying socialist current within it which they concluded to be innately anarchist. In this presentation, I will analyze the nuanced political structure, cooperatives, and the clubs of the Commune, as presented in my work Anarchist Perspectives on the Paris Commune, against the claims of these anarchists. I will present the audience with a brief history of the Commune, as well as a look at the anarchist ideology of Kropotkin and Bakunin. In doing so I will see to what degree anarchism was present within the Paris Commune of 1871. The question that will ultimately be asked, as posed by twentieth-century anarchist Voltarine de Cleyre, is "Which is the real Commune – the thing that was, or the thing our orators have painted it?"

### Access to Higher Education for First Generation Students and Minority Groups

Berenice Fuentes, Chelsea Sosa, Fletcher Brooks, Eder Flores Community and Justice Studies, Multicultural Leadership Scholars Program sponsored by the IEC

Faculty sponsor: Paula Hernandez

Session: Short Talks and Panel Discussions: History, MLSP, Political Science and History, Community

and Justice Studies

Location: Experimental Classroom • Time: 10:00 AM

Because of personal connections and opportunities that we had, we were able to learn more about how obtaining access to higher education is difficult for minority groups. We decided to focus our MLSP project on this particular issue. All of us are passionate in educating and motivating the community to help minority groups achieve higher education. Through our presentation, we are striving to identify the intersectional issues at our schools and communities that first generation and minority students are facing due to common lack of support from various stakeholders. We will discuss how issues such as race, social classes, legal status, and socioeconomic factors affect access to higher education for minorities. We want to exhibit how past initiatives, student-organized outreach programs for first generation and minority students, have been constructed and performed. With the goal of motivating individuals towards action that can provide a better and efficient access for students in need. This presentation is to be taken as a learning tool to inform others about education equity and equality among minority groups. The lasting impact that we wish to achieve is to get people interacting with these communities and to support increased access to higher education for minority groups and first generation students.

### What does a consensus driven genetics research class look like: Mutating an E.coli K12 defense system in a mutated classroom

Berenice Fuentes-Juarez, Carmen Mesa, Adyazbeth Barrientos, Jeremy Brown, Danielle Galipeau, Sam Schopler, Charles Bookheimer, Daniel Bowen, Bianca Fields, Gracie Perry-Garnette, Emily Bradford Biology

Faculty sponsor: Melanie Lee-Brown

Session: Panel Discussions: Biology, Community and Justice Studies

Location: IDEA Incubator • Time: 2:45 PM

A traditional classroom revolves around the instructor who uses lectures to get pupils the information. Recently classrooms have shifted to a more active learning environment centering the students; while instructors position themselves as a quide. Active learning uses activities during class time leaving lectures for independent study expected to be done outside of the classroom. In our class, the active

learning structure prepared us for our research that we had to perform by demanding focus on both wet and dry lab work. In an effort to discover interesting concepts and how resources can be applied to our genetics based research, three scientific papers of different protocols were reviewed. We utilized published peer reviewed literature to identify unfamiliar topics in genetics, which served as an opportunity for individual research. These papers provided information about various defense systems currently active in bacteria/archaea and the in vitro protocol pinpointing the different types of mutations: insertion, deletion, and substitution. In addition to providing a point of reference, they lended the insight necessary to comprehend the layers involved throughout the process of scientific research. This led us to focus our research question: if mutations in a specific defense protein altered the survivability of bacteria when challenged by a phage? Due to time-constraints, we have not gotten to mutate an E.coli K12 defense system however we have worked towards that goal.

### **BookShare: A Web Platform for Selling Books**

Farhad Walizai, Darrious Patterson Computing Technology and Information Systems

Faculty sponsor: Chafic Bou-Saba

Session: Short Talks: Biology, Biology and Environmental Studies, Chemistry, Computing Technology and Information Systems, Mathematics

Location: Leak Room • Time: 3:45 PM

### **Emmett Till in Collective American Memory from 1960 to Trayvon Martin**

Abijah Gattis

African and African American Studies, History

Faculty sponsor: Damon Akins

Session: Short Talks: African and African American Studies and History, German and American History, German and Women's, Gender, and Sexuality Studies, History, Religious Studies and Quaker Studies

Location: Experimental Classroom • Time: 1:30 PM

### Japanese American Contributions during World War II: Laying down the foundations for the agriculture programs of the CRIT and GRIC.

Kai Glass History

Faculty sponsor: Damon Akins

Session: Short Talks and Visual Presentations: Community and Justice Studies and History, Criminal Justice and Forensic Biology, Higher Education, History, Peace & Conflict Studies and Sustainable Food Systems

Location: IDEA Incubator • Time: 10:45 AM



### Soy un Lider level of influence over 12 years

Jeniffer Gonzalez Reyes
Community and Justice Studies, Bonner Scholars
Program

Faculty sponsor: Krista Craven

Session: Bonner Senior Presentations Location: Leak Room • Time: 2:15 PM

Over the course of 12 years what has Soy un Lider really provided to our community and the high schools around us. More specifically, Does the Soy un Lider Conference really influence the high school students to attend a high education. The understanding of the development and understanding of the Soy un Lider conference will be explained. But will also go further in depth to its local impact and ways of improvement for the next years to come.

## Three Important Factors that Contributed to Helms-Burton Becoming Law Garrett Griffith History

Faculty sponsor: Damon Akins

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

This presentation examines three factors that contributed to the Cuban Liberty and Democratic Solidarity (Libertad) Act of 1996, being signed into law by President Bill Clinton in 1996. Jesse Helms, a long-time Senator and Chairman of the Senate Foreign Relations Committee, co-authored the Cuban Liberty and Democratic Solidarity Act, also known as the Helms-Burton Act. Helms-Burton focused on the United States' relationship with Cuba and Fidel Castro and was written with four Titles, each with its own significant political agenda. When Helms-Burton was presented to the House of Representatives for a vote, it passed immediately; however, when it was presented to the Senate, the Act was initially tabled. This presentation will focus on three important factors that contributed to Helms-Burton being signed into law by President Clinton: The Republican Party having a majority in the House and the Senate when the bill was presented, the Cuban-American political influence and the shooting down of American civilian planes by the Cuban military. The information included in this presentation was compiled using information from multiple books, scholarly articles, newspaper articles and Senatorial papers from Senator Jesse Helms.

### Designing an On-Campus Eatery Experience Using a Service Design Thinking Approach

Julie Hildebrand, Michael Fernald, Lisa Wall, Alexander Massenburg Experience Design

Faculty sponsor: Margery Kiehn

Session: Posters and Exhibitions 1: Art, Biology, Criminal Justice and Psychology, Experience Design, Geology, Physics and Electrical Systems, Religious Studies and Quaker Studies, Sustainable Food Systems and History

Location: Main Level Poster and Exhibition Space • Time: 10:45-12:15

During the Spring 2019 semester, the XD 420 class engaged in creating physical and digital design concepts for an Academic Commons eatery that meets the needs of the Guilford College Community. The team followed a collaborative service design thinking approach, following the key steps of Empathy, Define, Ideate, Prototype and Test.

The team started with stakeholder interviews to identify the stakeholders' vision for the experience. Then empathy interviews with different future users and visitors identified user unmet needs, goals and pain points with their current experience. The class analyzed the competitive landscape to draw inspiration for their designs.

They defined the problem, then held an ideation session where they envisioned and created many concepts. Each student created their own concept for both the physical and digital experience and created a prototype. They then gathered concept feedback from users to identify experience design enhancements.

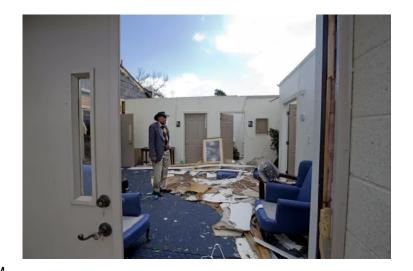
## Struggling After the Storms: An Inquiry into Just Disaster Recovery in East Greensboro

Sel Mpang, Brenna Carpenter, Ananya Bernardo, Ben James Community and Justice Studies

Faculty sponsor: Sherry Giles • Project

mentor: Willie Jones

Session: Panel Discussions: Biology,
Community and Justice Studies
Location: IDEA Incubator • Time: 2:15 PM



On April 15, 2018, a 16-mile, EF-2 tornado ripped through East Greensboro. It left one man dead, 173 households displaced, and \$48 million in damages. Just when recovery efforts were gaining steam, Hurricane Michael and Florence hit in the fall. The Storm Recovery Alliance of 40 government and private organizations activated to address needs after the storm. The effectiveness of that response has been questioned by residents.

East Greensboro is a low-income community of color with less incentive for investment than other areas. The Beloved Community Center, whose mission is to foster social and economic relations to realize the dignity, worth and enormous potential of every person, wanted to better understand the scope of these disasters to best serve the needs within its community. This spring, Beloved partnered with Sherry Giles, Professor of Community & Justice Studies, and Willie Jones, an expert in community-centered approaches to economic development, to lead four interns as they compiled a report working within the "just recovery" framework.

First, we focused on the numbers: analyzing the city's budget and interviewing city representatives and community leaders to piece together the recovery process. Next, we looked into the human toll: utilizing qualitative data collected by JPS 338 Research Methods course to understand the physical, mental, social and spiritual toll. We will introduce our research process, preliminary findings and recommendations for next steps.

#### **U.S. Counterterrorism Against ISIS**

Sasha Jackson
Political Science

Faculty sponsor: Ken Gilmore

Session: Short Talks: Community and Justice Studies Capstone, Political Science, MLSP

Location: Art Gallery • Time: 9:45 AM

An examination and analysis of U.S. counterterrorism strategies that could defeat ISIS.

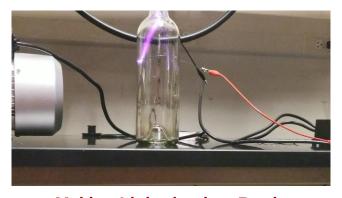
### Women of Color in the U.S.: Criminal Justice System

Rebecca Jacque, Mattie Schaefer Sociology & Anthropology

Faculty sponsor: Naadiya Hasan

Session: Women of Color in the U.S. Location: Art Gallery • Time: 11:30 AM

In this short session, participants will develop a better understanding of the impact of race and gender in the criminal justice system. In this session we will be investigating the pre-trial detention and post-conviction experiences of Black women defendants. The primary focus of this short session will be an exploration of the varied ways that Black women defendants exercise agency while interacting with the heavily regulated criminal justice system. Participants will develop a clearer understanding of 1) how the criminal justice system works, 2) the distinction between how the criminal justice system claims to serve society and the actual consequences of existing policies, and 3) the structural and cultural constraints placed upon Black women within the criminal justice system.



Making Lightning in a Bottle
Will Jeffries

Physics, Electrical Systems

Faculty sponsor: Peter Nelson

Session: Posters and Exhibitions 1: Art, Biology, Criminal Justice and Psychology, Experience Design, Geology, Physics and Electrical Systems, Religious Studies and Quaker Studies, Sustainable Food Systems and History

Location: Main Level Poster and Exhibition Space • Time: 10:45-12:15

I recreated a Cathode Ray Tube using a wine bottle, a vacuum pump, and a high voltage power supply. I will explore the vast array of experiments which can be done on the apparatus, including calculation of mass, kinetic energy, frequency of light emitted under different voltages and magnetic fields, et cetera.

#### **Homelessness in Greensboro**

Chapelle Johnson, Jed Edwards, John Ellis, Khaira Bolden
Principled Problem Solving

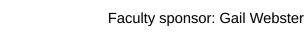
Faculty sponsor: Sonalini Sapra

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

In collaboration with the Homeless Union of Greensboro, the PPS group has been working with the local homeless population to try and better understand the daily problems and obstacles this group faces. The group conducted numerous interviews to discuss issues related to access to shelter, legal representation, and relationship with law enforcement, the results of which are going to be coded to later present to the city of Greensboro.

### **Spin Probe Studies of Structured Fluids**

Leanna Kantt Chemistry



Session: Short Talks: Biology, Biology and Environmental Studies, Chemistry, Computing Technology and Information Systems, Mathematics

Location: Leak Room • Time: 4:00 PM

Structured fluids are complex mixtures containing more than one phase, with either solid or gas particles dispersed in a liquid. They are non-Newtonian, so their viscosity is dependent on shear rate. Common structured fluids include gels, foams, emulsifiers and drilling muds. This project focuses on a molecular level investigation of structured fluid gels made of fumed silica with a surface area of 200 m2/g (Aerosil® 200) and different solvents and solvent mixtures. Electron paramagnetic resonance (EPR) spin-probing technique was applied to determine the local viscosity of these structured fluids on the molecular level. The line shape of the EPR spectra reflects rotational dynamics of the TEMPO (Full name: 2,2,5,5-tetramethylpyrrolidine-1-N-oxide) spin probe and provides information on local polarity and micro-viscosity of the fluids. EPR spectra were simulated with EasySpin tool in MATLAB, and correlation times (tc) were obtained from spectral simulation. Results showed a nonlinear relationship between weight percent loading of Aerosil® and rotational correlation time for the nonpolar organic solvents and mixtures. Polar solvents showed no change in rotational correlation time resulting from changes in weight percent loading due to surface interactions between the Aerosil® and solvent.

### The Multi-Racial, Communist Movement for Change in Greensboro in the 1970s

Reva Kreeger

Community and Justice Studies, History

Faculty sponsor: Damon Akins

Session: Short Talks and Visual Presentations: Community and Justice Studies and History, Criminal Justice and Forensic Biology, Higher Education, History, Peace & Conflict Studies and Sustainable Food Systems

Location: IDEA Incubator • Time: 11:30 AM

This paper explores the development of the class-labor movement in Greensboro, North Carolina in the 1970s and the success of the Workers Viewpoint Organization (WVO) in uniting the black and white working class. In order to understand the emergence and strength of the WVO, I am contextualizing this particular movement within the greater history of social movements in Greensboro – namely, the sit-ins of the 1960s; Black Power activism; Pan-African ideology of the late1960s; and

Marxist-Leninist union work in the local textile mills. Specifically, I will examine what impact this class-labor praxis had on building multi-racial, multi-class unity that was cut short by the Greensboro Massacre – a collusion of the KKK, American Nazi Party, GPD, and FBI on November 3, 1979. This argument is supported by oral histories; interviews by the Greensboro Truth and Reconciliation Commission; and letters, pamphlets, and notes from people involved in the movement at this time. It will add to historical scholarship that challenges hegemonic narratives of social change through emphasizing the intersection of race and class in shaping and moving US history. Ultimately, this work is significant because it attempts to assess what impact praxis has on the power behind social movements, and because it places Greensboro's history within efforts to illustrate relationships between race and class that permeate US social life.

#### **60th Tibetan Uprising Day**

Nyima Lama, Chelsea Sosa, Fernando Jimenez Principled Problem Solving, Honors Contracted Course

Faculty sponsor: Zhihong Chen • Project mentor: Sonalini Sapra

Session: Posters and Exhibitions 3: Art, Creative Writing and Eating Disorders, Economics and Education Studies, Environmental Studies and French, Health Sciences, MLSP, Pringcipled Problem Solving and Honors Contracted Course, Religious Studies

Location: Main Level Poster and Exhibition Space • Time: 2:15-3:30

This project was conducted on the day of the 60th Tibetan Uprising March, held in NYC, to share the stories and pictures of the Uprising Day on national organization Define American's platform in order to raise awareness and uplift the movement through a larger audience. During this march, we interviewed six Tibetan people who were willing to be vocal on the movement and its significance to the Tibetans. The stories convey the sentiments that are shared among several Tibetans living in exile and looking for more social and political freedom.

### **Martyrdom: Catholic Priests who Unintentionally Inspired a Conspiracy**

Connor Leamey
History

Faculty sponsor: Damon Akins

Session: Short Talks and Panel Discussions: History, MLSP, Political Science and History, Community

and Justice Studies

Location: Experimental Classroom • Time: 9:00 AM

### Wings of Wood

Kelvin Limanto Art, Physics

Faculty sponsor: Mark Dixon

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

A response to the "Wings Over Water" from Houston Texas, this motion piece captures rotational kinematics into a waving flow above. The consistent turning of the motor translates power through gears into a central helical camshaft and up into the wings via 20 rods. While "Wings Over Water" is constructed with stainless steel and cloth to symbolize strength and rising flight, "Wings of Wood" turns the other direction with solid oak. Wood not usually associated with flow interjects and centers itself into the piece.

### **Exploring food justice and food insecurity among Guilford College students**

Ginger Mandel

Peace & Conflict Studies, Sustainable Food Systems

Faculty sponsor: Zulfiya Tursunova

Session: Short Talks and Visual Presentations: Community and Justice Studies and History, Criminal Justice and Forensic Biology, Higher Education, History, Peace & Conflict Studies and Sustainable Food Systems

Location: IDEA Incubator • Time: 11:45 AM

The presentation will share research findings from community-based participatory research on food justice and food security among Guilford College students. The students have conducted 4 focus groups, with participants of diverse backgrounds, sampling a variety of Guilford College students, as a part of PECS/SFS/ENVS 350: Food Justice, Sovereignty, and Peace. The research project was aimed at examining accessibility, affordability, availability and food utilization on campus and mapping the existing food system. The research findings have highlighted some of the systemic food issues that exist on this campus and have gathered a number of potential actions to be made in order to address these issues. After conducting this research, we also have grasped the sheer urgency for change on this campus. Food justice requires a sense of community, inclusivity, accessibility, and sustainability. As Guilford College continues to strive for these values, it is imperative for us to be critical of our food system in order to drive positive change.

### Understanding Community Perceptions of Immigration Policies in Alamance County

Patricia E Martinez, Lakshmi Premysler, Shea Orth-Moore Community and Justice Studies

Faculty sponsor: Krista Craven

Session: Short Talks: Community and Justice Studies Capstone, Political Science, MLSP

Location: Art Gallery • Time: 9:15 AM

Understanding Community Perceptions' of Immigration Policies in Alamance County is a study conducted by three Seniors in the Justice & Policy Studies department in collaboration with the American Friends Service Committee. The AFSC was concerned that Alamance County, a neighboring county to Guilford, could fully reinstating the 287(g) program, which is viewed by many individuals as an anti-immigrant policy that would put the undocumented community at risk of being stopped, detained, and/or deported by law enforcement. Ultimately Alamance County did not bring back the program, but instead chose to honor ICE detainers, which function as onsite immigration detention in the local Alamance County jail. Our overarching research questions are guiding the study are: (1) What are the perceptions of community members in light of past and future immigration policies? (2) In what ways are business owners informed of the current state of immigration and how does this affect their business economically? Our data collection consisted of in-person interviews with strategically chosen members of the community, and surveys from business owners who are key stakeholders in the economic prosperity of the county. We then hosted a collaborative data analysis session with Hispanos Unidos de Guilford, with the goal of sharing findings from our surveys and interviews to develop more detailed analyses for our project. Residents see the state of immigration in the U.S. is either broken or disastrous.

### The Rhetoric of Desertion: Methods American Propagandists Utilized to Incite Hessian Desertion During the American Revolution

Dylan Mask German, American History

Faculty sponsor: Damon Akins

Session: Short Talks: African and African American Studies and History, German and American History, German and Women's, Gender, and Sexuality Studies, History, Religious Studies and Quaker Studies

Location: Experimental Classroom • Time: 1:45 PM

During the American Revolution, American propagandists subverted the German soldiery, in cooperation with the British Army, leading to the desertion of well over 5,000 conscripted Hessian

soldiers, including some officers. Propagandists actively distributed pamphlets into Hessian military camps, promising land and, later, monetary incentives for any defected Hessian. Subversive acts of propaganda severely impacted the Hessian military campaign during the American Revolution crippling a vital branch of the British military. Through the rhetoric within the propaganda, American Propagandists manipulated the Hessians' desperate desire for land into a vital tool for desertion, and inadvertently introduced a new swath of immigrants to the American continent. The study of American propaganda pertaining to Hessian defection remains an understudied field in American History. My study contributes to understanding the role and effectiveness regarding the rhetoric of American propaganda during the American Revolution. My chosen topic pertains to historiographical debates regarding the effectiveness of American propaganda and regarding the importance of Hessian defection. The implications of Hessian desertion allow for a readjustment in the understanding of propaganda and how it affected the military and cultural outcome of the American Revolution.

#### **Bonner Presentation**

mia masucci Bonner Presentation

Faculty sponsor: James Shields

Session: Bonner Senior Presentations Location: Leak Room • Time: 1:15 PM

#### **Multi-block Printmaking Demo**

Sophie McDowell

Art

Faculty sponsor: Katy Collier

Session: Posters and Exhibitions 3: Art, Creative Writing and Eating Disorders, Economics and Education Studies, Environmental Studies and French, Health Sciences, MLSP, Principled Problem Solving and Honors Contracted Course, Religious Studies

Location: Main Level Poster and Exhibition Space • Time: 2:15-3:30

### Call and Response with Jennifer townley's "Red Thread"

Tim McElroy Art

Faculty sponsor: Mark Dixon

Session: Posters and Exhibitions 1: Art, Biology, Criminal Justice and Psychology, Experience Design, Geology, Physics and Electrical Systems, Religious Studies and Quaker Studies, Sustainable Food Systems and History

Location: Main Level Poster and Exhibition Space • Time: 10:45-12:15

This Presentation is on a sculpture that was made responding to another sculpture by Norwegian artist Jennifer Townley. The sculpture responds to the gentleness of Townley's by taking some key parts of her sculptures, Moving parts and gears, and taking them in a different direction. This piece is an interactive one where people can come in and attempt to move it, however it will not turn gently and softly. If you want it to turn you have to be very committed to turning it. The point here is to bring some people out of their comfort zone and out of the idea that all art is delicate.

### **Harmonious Transition of Tranquil Ambitions**

Leonard McNair Bonner Scholars

Faculty sponsor: James Shields

Session: Bonner Senior Presentations Location: Leak Room • Time: 1:30 PM

### Tolkien and his White creations - representation of POC in LOTR

Taylor McNichol
Psychology

Faculty sponsor: Richard Zweigenhaft

Session: Short Talks: Community and Justice Studies, Community and Justice Studies and Education Studies, Economics, Philosophy and Women's, Gender, and Sexuality Studies, Psychology Location: IDEA Incubator • Time: 12:45 PM



This presentation is short but in depth look at Tolkien's works in middle earth as well as Peter Jackson's interpretations of said works. This topic focuses on the lack of representation of POC and what that could mean as well as insight into what little POC there is in Lord of The Rings.

### Obra de teatro: Un viaje a Madrid

Ben Miller, Vy Bui, Zachary Quaglia Spanish

Faculty sponsor: Karen Spira

Session: Spanish presentations and capstone Location: Experimental Classroom • Time: 10:45 AM

This is a presentation entirely in Spanish about a flight to Madrid where three strangers find out they have a little more in common than they originally thought.

### How easy is it to kill? Bioterrorism: Exploring operational weakness through experiments in the dissemination of Anthrax - causing bacteria.

BIO 291 class research, Cinthia Moncada Soto, Samuel Mott, Maya Chevalier, Michael Jurado, Elijah Gregory, Zachary Mott, Olivya Moore, Nick Milich, Delaney Taylor, Connery Taylor

Biology

Faculty sponsor: Melanie Lee-Brown

Session: BIOL 291 class research presentation/MLSP Panel Discussion Location: Art Gallery • Time: 4:15 PM

Bioterrorism is the deliberate use of biological agents in attempt to strike fear and cause harm to large communities. Dissemination is the intent to spread biological agents through inhalation, cutaneous, ingestion and injection. For Biology 291: Intro to Scientific Inquiry: Bioterrorism, research groups studied potential dissemination methods and modes for Bacillus thuringiensis as a safe model for Bacillus anthracis. Bacillus anthracis is the biological agent that causes anthrax: a CDC category A agent that is easily disseminated, can cause public panic, and, has potentially high mortality rates. For this study, three research groups studied different modes of dissemination of B. thuringiensis. There were two sources of spores, those made through spore preparation and processing, and an agricultural supply. Modes of dispersal included: saturating spores on wristbands and testing transfer

efficiency to skin, infusing spores onto air filters to disseminate them via airflow into rooms, suffusing the fabric of stuffed animals, and testing spore transfer to skin. In this session we will discuss the results of our experiments, and what these results mean in a real world setting.



### El Hada de Ser y Estar: A Magical Video Project that Teaches Students How "To Be"

Jillian Morrison, Hannah McKinnis, Gabriela Goodman Spanish

Faculty sponsor: Karen Spira

Session: Spanish presentations and capstone Location: Experimental Classroom • Time: 10:45 AM

El Hada de Ser y Estar was created to teach students an essential Spanish lesson in a fun and creative way. By utilizing magic in this film, we show students the importance of language. In other words, being able to speak another language, is a superpower of sorts. The Fairy who teaches Jillian and Gabriela about this foundational concept, knows magical spells. But by learning the difference between these two crucial verbs, Jillian and Gabriela develop a power of their own. Language has given them the ability to properly communicate what they are doing and how they are feeling. With this accomplishment, there's no telling what the students can achieve next!

### **Every Campus A Refuge Project (Group Presentation): Supporting ECAR Through Fundraising**

Angela O Morrow Every Campus A Refuge

Faculty sponsor: Diya Abdo

Session: ECAR

Location: Experimental Classroom • Time: 2:45 PM

This project raises funds for Every Campus a Refuge (ECAR) and brings awareness to the mission and work of ECAR. As ECAR volunteers, we help newly arriving refugees by providing a place to stay and all the basic necessities to have a soft landing and resettlement in Greensboro. They are provided with food, clothing, transportation, and English language tutoring as well as friendship. The work of ECAR connects the Guilford community to the refugee community by offering a hand of support in any area of resettlement that is needed. The work of ECAR cannot go on without continuous funding. The more funds the program has the more refugees we can support. Through various events, such as

tabling at Lakefest, hosting a photography event, and an upcoming doughnut fundraiser, my fundraising project will bring awareness and extra funds to ECAR. My presentation will show how this fundraising project contributes to the core values of Guilford and ECAR by connecting refugees to the many communities that can support them.

# Legality vs. Morality: Legal and Ethical issues faced by Dr. Jack Kevorkian and the Right-To-Die movement.

Zachary Mott Criminal Justice, Psychology

Faculty sponsor: Michael Costolo

Session: Posters and Exhibitions 1: Art, Biology,
Criminal Justice and Psychology, Experience Design,
Geology, Physics and Electrical Systems, Religious
Studies and Quaker Studies, Sustainable Food
Systems and History

Location: Main Level Poster and Exhibition Space •

Time: 10:45-12:15



For an act to be legal, the act must be in compliance with the federal and state law. For an act to be ethical, it must comply with one's personal moral values. In an effort to understand the real motives behind Dr. Jack Kevorkian's work with the Right-To-Die movement, I have read and studied the publication of Professor Michael DeCesare of Merrimack College titled "Death on Demand: Jack Kevorkian and the Right-To-Die Movement." This visual aid centered presentation is focused on Dr. Kevorkian's avoidance of the law to further his work in assisted suicide. Through discussion I would also like to share my own thoughts on what Kevorkian's true motives may have been in regard to his early work in the medical field.

### **Transcend WG!**

Haya Mujali, Jillian Morrison, Chelsea Sosa-Sosa, Nyima Lama Principled Problem Solving

Faculty sponsor: Sonalini Sapra

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

Transcend WG, a program that was created as a result of a Center for Principled Problem Solving project. It is dedicated to giving a voice to immigrant and refugee students that are underrepresented in our public high schools. Currently, we are working with students at Western Guilford High School. We work towards building a bridge between the administration and students and we provide post-secondary resources so that the students can envision a future that transcends academic and language barriers.

### Introduction of theatrical set design

Sora Mullis
Theatre Studies

Faculty sponsor: Robin Vest

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

# MLSP: Legalized Discrimination & The Prison Industrial Complex Andrea Muñiz-Alvarado, Olivia Winder, Cheyenne Wright, Chloe Wells MLSP

Faculty sponsor: Paula Hernandez

Session: Short Talks, Film Screening & Teach-in: Education Studies, English and Environmental Studies, MLSP, Psychology and Mass Media

Location: IDEA Incubator • Time: 4:30 PM

Our group has spent over a semester researching and filming a short, educational, provocative documentary that works to unpack the intricacies of legalized discrimination, and how this operates hand in hand with the Prison Industrial Complex. Our study, as many studies are, is limited in scope, but aims to be emotionally and intellectually evocative, as well as engaging for folks with and without experience working within related fields of study. Please join us for a screening and Q&A session, and help us to challenge the injustices of the systems currently in place.



# Beauty and Body: Capturing and generating conversations about bodies and beauty standards at Guilford College

Chantea Neal, Celene Warren, Sarena Ezell, Kristy Shammas, Mikayla Jones MLSP

Faculty sponsor: Paula Hernandez

Session: Short Talks and Panel Discussions: History, MLSP,

Political Science and History, Community and Justice Studies Location: Experimental Classroom • Time: 9:30 AM

Our mission was to highlight and uplift the diversity and positivity of different bodies through the different lenses that the body is viewed. our purpose for this project was to interpret the thoughts of the Guilford community about their personal feelings and experiences with body standards. We explored how different socially identified groups are affected by the body and beauty standards conveyed by society. To do so we will conduct interviews at Guilford college to capture the voices of the community about their personal encounters with body standards. This will open up more conversations about body awareness and the understanding of privileges and oppression within the mentioned topic in our GUS discussion. We took into consideration the intersecting identities of the community by comparing the differences between race, class, gender, sexuality, age, and ability. In the interviews, we asked participants a series of questions pertaining to their feelings around social body standards and the effects it has on their own bodies. Then asked participants if they feel comfortable taking a photo with a quote or a word that defined the way the felt about their bodies and overall appearance. We will present the photos at our exhibit and panel at Guilford's undergraduate Symposium (GUS), along with quoted pictures of the participants. We will present key points of the ideas and experiences that were shared with us during the interviews.

## Creating a Positive Dental Experience for Children with Developing Disabilities and Special Health Care Needs

Cathy Nguyen
Health Science

Faculty sponsor: Anne Glenn

Session: Posters and Exhibitions 3: Art, Creative Writing and Eating Disorders, Economics and Education Studies, Environmental Studies and French, Health Sciences, MLSP, Principled Problem Solving and Honors Contracted Course, Religious Studies

Location: Main Level Poster and Exhibition Space • Time: 2:15-3:30

### Representation of Gender and Race in The Core Knowledge of Language Arts Curriculum

Kate Nunke Education Studies

Faculty sponsor: Anna Pennell

Session: Short Talks, Film Screening & Teach-in: Education Studies, English and Environmental Studies, MLSP, Psychology and Mass Media

Location: IDEA Incubator • Time: 4:15 PM

In the Fall of 2018, Guilford County Schools, the third largest district in North Carolina (www.gcsnc.com), adopted the Core Knowledge of Language Arts (CKLA) curriculum for grades K-2. While using the curriculum in a grade two classroom, the author observed a male centric, colorblind, Eurocentric bias in its content (Bonilla-Silva, 1994), causing the author to analyze the CKLA content for invisibility of gender and race/ethnicity. The scripted curriculum is grounded in the philosophy of founder E.D. Hirsch's Core Knowledge Foundation (https://www.coreknowledge.org/). The author examines Hirsch's Core Knowledge claims (1988, 1997, 2002, 2009, 2010, 2014), the controversies surrounding them, and evidence regarding the impact of racial and gender curricular bias. The author used Sadker's Seven Forms of Curriculum Bias model (2010) to analyze and evaluate CKLA grades K-2 content, specifically identifying invisibility bias within the curriculum (Sadker, 2010). Results affirm the need for content-based instruction, but refute the claim that CKLA provides racially and gender equitable content. On the contrary, CKLA ensures that such content is nearly impossible for teachers to provide. Implications and policy recommendations are shared.

### A Guide for Binge-Watching Maniacs

Elanna Reber Psychology, Mass Media

Faculty sponsor: Richard Zweigenhaft

Session: Short Talks, Film Screening & Teach-in: Education Studies, English and Environmental Studies, MLSP, Psychology and Mass Media Location: IDEA Incubator • Time: 4:00 PM



A Binge-watching has become a common phenomenon in our culture today. Current research indicates that there are many motivations for binge-watching and that there are psychological consequences. The basic question is, does binge-watching TV have a positive or a negative effect on individuals? I will talk about the history of the television starting with broadcasting programs and then go into new technologies such as streaming. The most revolutionary device was the introduction of Streaming Video on Demand (SVOD) creating platforms such as Netflix and Hulu. The new resources

that are easily accessible with a click of a button can contribute to binge-watching. Katz, Blumer, and Gurevitch, use "Gratification Theory" to explain the relationship between the media and the consumer. These gratifications allows individuals to satisfy their needs were grouped into three categories: Diversion, Social Relationships, and Personal Identity. These motivations can be fulfilled by binge-watching. As our perspectives starts to shift about these devices, we begin to wonder if these behaviors are healthy or if they are damaging our minds and brains. The act of binge-watching is not carefree, there are negative psychological effects of extended sitting and watching TV. Griffith identified six criteria for addictive behavior that applied to excessive television series viewing as: salience, mood modification, tolerance, withdrawal, conflict, and relapse. Now, it's up to the consumer to decide.

### Women of Color in the U.S.: Family

Christian Ritter, Grace Sanabria Sociology & Anthropology

Faculty sponsor: Naadiya Hasan

Session: Women of Color in the U.S. Location: Art Gallery • Time: 11:15 AM

In this presentation, we will directly address the challenges of single-mother women of color in the family social institution and how they resist those challenges. We will be looking at the way women of color who are single mothers resist and act upon particular issues that would put them in a disadvantage in U. S. society. Some of the challenges we will focus on are resource inequality and poverty, paralleled with examination of the efforts toward group survival through other-mothering and fictive kin within the community. The struggles and responses presented will serve as a foundation to question the effectiveness of the traditional nuclear family within communities of color and implementing sociological analysis to support a more inclusive understanding of the family in the United States as a whole.

### **Immigrants and Refugees: Barriers and Achievements**

Danny Rodas Garcia
Political Science, Bonner Scholars Program

Faculty sponsor: James Shields

Session: Bonner Senior Presentations Location: Leak Room • Time: 2:30 PM

### **Legacy Crossing and Food Access**

Elijah Rogan-Kelly Sustainable Food Systems, Bonner

Faculty sponsor: James Shields

Session: Bonner Senior Presentations Location: Leak Room • Time: 1:45 PM

Through surveying two populations of Congolese and Burmese refugees at an apartment complex in east Greensboro, I am exploring and identifying barriers to food access.

## In the Guise of Safety: Financial Regulation and Risk Migration in the US Financial System

Hannah Rouse Economics

Faculty sponsor: Robert G. Williams

Session: Short Talks: Community and Justice Studies, Community and Justice Studies and Education Studies, Economics, Philosophy and Women's, Gender, and Sexuality Studies, Psychology Location: IDEA Incubator • Time: 1:45 PM

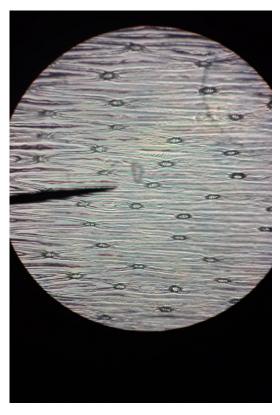
In response to the financial crisis of 2007-2009, Congress passed legislation to reduce the likelihood and magnitude of future crises. The famous Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 placed restrictions on the risk-taking activities of systemically important financial institutions. Restrictions on activities of banks considered "too big to fail" may have lowered the level of risk held by the largest banks, but the risk appears to have migrated to other, less regulated places in the financial system. This analysis will examine the process of risk migration since the last financial crisis by focusing on recent developments in mobile home mortgage-backed securities, leveraged loans, their connection to private equity firms, and subprime auto loan backed securities. Market stories tell investors that these market segments are safe, and as a result, financial capital keeps flowing in. This thesis will follow the financial channels feeding the ballooning loan issuance in these three areas and will raise the question: Are bubbles forming under a guise of renewed safety?

### **Reading by Dean's Writing Awards Winners**

Dean's Writing Awards Winners: Sarah Savage, Alice Croom, Gillian Renee Sherman,
Joseph Patterson, Harper Reese
Writing Program / Dean's Writing Awards

Faculty sponsor: Rod Spellman

Session: Dean's Writing Awards Location: Leak Room • Time: 9:30 AM



#### The reaction Onion Grass has to Urbanization

Lillian Santoro, Daniel De La Rosa-Medrano Biology

Faculty sponsor: Christine Stracey

Session: Short Talks: Biology, Biology and Environmental Studies, Chemistry, Computing Technology and Information Systems, Mathematics

Location: Leak Room • Time: 5:00 PM

With growing concerns about carbon dioxide concentrations in the atmosphere, it is important to understand how plants and animals respond. Various studies have shown that levels of CO2 tend to increase along an urban gradient. In our Ecology class (Biol 438) experiment, we tested how plants respond to changes in CO2 levels along an urban gradient. To test this we sampled onion grass (Romulea rosea) from locations on Guilford campus near roads and locations outside of Greensboro away from roads. We quantified the density of stomata, which plants use for gas

exchange, in these places. We expected to see a lower number of stomata openings in onion grass collected in more urbanized communities. Our results showed that statistically there were no significant difference between the average stomata index of the non-urban plants compared to the urban plants. This information can show the ability, of lack thereof, of plants to acclimate to their environment.

### **Understanding Housing Conditions and Resettlement Support in Greensboro**

Charlotte Sartin, Kaled Atchabao, Zaynah Afada, Sel Mpang, Brittany Booth Community and Justice Studies

Faculty sponsor: Krista Craven

Session: Short Talks: Community and Justice Studies Capstone, Political Science, MLSP

Location: Art Gallery • Time: 9:30 AM

As Community and Justice Studies majors, we have taken part in an eight-month 448-449 Capstone course. In the fall we've developed a PAR (Participatory Action Research) study investigating the experiences of former residents of Summit-Cone apartments after its condemnation on August 14, 2018. In conjunction, we also wanted to gain a better understanding of the relationships between former residents of Summit-Cone and local refugee resettlement agency/service providers, too. This project is a two-fold approach to gain knowledge of the tensions and dynamics related to housing and the resettlement process for refugees. This study is specific to Greensboro, however, is applicable to nation-wide issues related to refugees and housing. We have worked together and developed this study with community and group member Zaynah Afada. We've collected qualitative data using tools like interviews. Our research process is deeply ingrained in the principals of PAR, allowing collaboration with participants. In doing so, we've shared key themes with service providers and community members and discussed them together in sessions. Emerging themes include self-sufficiency, time constraints, and community support. They will be highlighted in our presentation, along with the analysis from community members and research participants. It is our hope that refugees in Greensboro will have the opportunity to access better housing and the resources they need for a healthy and fulfilling life.

### **Interactive Mosaic: Painting 1 and 2 and Mixed-Media Classes**

Emma Sarver, Hazel Wechsler

Art

Faculty sponsor: Antoine Williams • Project mentor: Katy Collier

Session: Special exhibitions Location: Carnegie Room • Time: all day

#### The Greenleaf Review: Selections from the 2019 edition

Mattie Schaefer, Chloe Wells, Maya Moore, Julia Tasho, Joseph Patterson Creative Writing, English

Faculty sponsor: Jennie Malboeuf

Session: Greenleaf Review Readings Location: Art Gallery • Time: 2:45 PM

Our event will consist of writers who are featured in this year's edition of the magazine reading their work in front of an audience. The event will serve as a precursor for the printed magazine, which will

be released on April 19. It is also a great way to showcase our Community's wonderful, talented creative writers that contribute to our publication.

### Abolitionist and the Underground Railroad: A Symbiotic Relationship

Stephanie Todd history senior seminar

Faculty sponsor: Damon Akins

Session: Short Talks, Film Screening, and Teach-in: Education Studies, English and Environmental Studies, MLSP, Psychology and Mass Media

Location: IDEA Incubator • Time: 5:00 PM

A discussion concerning Sydney Howard Gay and Louis Napoleons relationship in the Underground Railroad of New York City in the 1840-1850's.

### Parental Acceptance of LGBTQ Individuals and Health Outcomes

Finn Shepherd
Psychology

Faculty sponsor: Chris Henry

Session: Short Talks and Panel Discussions: Economics, German and History, History, Psychology Location: IDEA Incubator • Time: 9:30 AM

LGBTQ individuals face negative social attitudes in numerous aspects of their lives, including their relationship with their parents. This study aimed to uncover how parental acceptance and negative health outcomes are influenced by LGBTQ identity and the relationships between parental acceptance and negative health outcomes. Heterosexual participants were compared with LGBQ participants, and cisgender participants were compared with transgender participants. Results showed significant differences in parental acceptance and psychological well-being between both heterosexual and LGBQ participants, as well as between cisgender and transgender participants, however neither comparison showed significant results for substance abuse. While the significant findings are saddening, they do show the importance of considerations of identity when addressing negative health outcomes.

### The Undefined Gender: German Nonbinary and Intersex Identities

Finn Shepherd

German, Women's, Gender, and Sexuality Studies

Faculty sponsor: David Limburg

Session: Short Talks: African and African American Studies and History, German and American History, German and Women's, Gender, and Sexuality Studies, History, Religious Studies and Quaker Studies

Location: Experimental Classroom • Time: 1:00 PM

At the end of 2018, the German courts approved a law that would allow the introduction of a third gender marker for official documents, one termed as "diverse." However, the law requires a doctor's certificate to receive this new marker, and for nonbinary people, there might be significant issues in getting this certificate, due to a lack of physical characteristics that would fit the "other" category. Additionally, this introduction of the new marker leads activists to fear that intersex children might face more unnecessary surgeries to make them appear either physically male or female to avoid receiving the "diverse" categorization. Germany also has binary classifications within the language, which continues to be a problem for nonbinary and intersex people. Spurred by these problems, my question is: does Germany have the necessary systems to promote protection and recognition of nonbinary and intersex people, or does it lack the tools for full recognition? I examine how a gender-neutral German language has developed and analyze several different texts from nonbinary people on their development of a gender-neutral German language and pronouns. I also look at the results of the new law, and how Germany compares to other countries with nonbinary and intersex recognition and protection.

#### Women of Color in the U.S.: Mass Media

Elyssa Shoup, Ari Smith Sociology & Anthropology

Faculty sponsor: Naadiya Hasan

Session: Women of Color in the U.S. Location: Art Gallery • Time: 11:00 AM

This community outreach lesson focuses on how the environment of the television industry, both behind and in front of the camera, reproduce controlling images that are produced throughout the television industry. Controlling images are defined by Collins (1990) as symbolic tools to make social inequalities, such as racism, poverty, and sexism, seem like inevitable parts of life. The presentation will explain how cultural and structural factors, including the culture, economic structure, internal hierarchies, and employment habits, influence the reproduction of controlling images within the reality television show Love and Hip-Hop: Atlanta. Examples from the show will be used to discuss Black

women's participation in television as performers, creators, and administrators. We will also discuss the different obstacles keeping Black women from introducing more varied representations of the realities of Black women's lives, and how that leads to stereotypes being repeated in television shows and in the society as a whole.

## Synthesis and Characterization of Axial Ligand to Tune Reactivity of a Dirhodium(II) Paddlewheel Complex

Elyssa Shoup Chemistry

Faculty sponsor: Anne Glenn

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

Dirhodium(II) paddlewheel complexes are exceptionally active complexes for the formation of rhodium carbenoid intermediates through the decomposition of diazo compounds. The catalysts are stable compounds that are able to perform a variety of synthetically useful transformations, including carbon-hydrogen insertions, cyclopropanations, and ylide formations. However, dirhodium(II) paddlewheel complexes can be so reactive that a dimer of the diazo compound is formed instead of the desired product. This research focuses on preventing dimer formation through modification of the dirhodium(II) paddlewheel catalyst by modifying axial ligands to control the reactivity of the catalyst. Synthesis of the axial ligand has three steps: synthesis of the aminosulfate from an aminoalcohol, synthesis of the aminosulfide from the aminosulfate product, and synthesis of the ligand from the aminosulfide product. The products of each synthesis were characterized through 1H NMR spectroscopy. Continuing research is focusing on successful synthesis of the ligand, formation of the dirhodium(II) paddlewheel catalyst, and testing the reactivity of the catalyst.

### New World Tubers in English history, the sweet potato in Renaissance England

Elias Smolcic Larson Sustainable Food Systems, History

Faculty sponsor: Damon Akins

Session: Posters and Exhibitions 1: Art, Biology, Criminal Justice and Psychology, Experience Design, Geology, Physics and Electrical Systems, Religious Studies and Quaker Studies, Sustainable Food Systems and History

Location: Main Level Poster and Exhibition Space • Time: 10:45-12:15

The potato and sweet potato both tubers first cultivated by indigenous peoples in the Americas have been established throughout the world as a staple to various peoples, but it had not always been that way and even after centuries of contact between Europe and the Americans this crop remained a luxury item that was often only consumed by the wealthiest in society. The medical professionals of the day along with dietary recommendations of the day that often suggested against root crops in general, yet the sweet potato still being eaten by the wealthiest of society including king Henry the 8th and later royalty. Hence this tuber became associated with royalty, while it found its way into the cook books for the social elites and more importantly for the commoner masses into the theater preformed at the time, opening access to the illiterate and poorest of society. Lastly in the days of King James the first with the first officially sanctioned English language translation that brought the Bible to the conscious of the English of all social levels, gone where the days only those educated in Latin could understand what was being said in church. It was through these three intuitions almost all English people had some form of dealings with and it was through all of this that the perception of New World foods such as these two tubers was formed out of.

### Natural Birth (in Response to Kiki Smith) Kerri Smoot

Art

Faculty sponsor: Mark Dixon

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

I have always been drawn to the sculptural work of Kiki Smith. Her visceral depictions of female figures show the painfully vulnerable side of being human. Some of her more recent bronze works feature women emerging from animals to highlight the human relationship with nature. The specific piece to which I am responding, "Born" (2002), shows a woman lying on the ground with her arms crossed over her chest, having been birthed by a standing doe, her feet still emerging from the deer. I have sought to translate this piece into my own sculptural language, using imagery of trees to represent nature as I do in my own work where Smith uses animals. I have also called upon the visceral depictions of fragility and vulnerability that originally drew me to her work over a decade ago.



### **Graphic Nonfiction Books and Eating Disorders**

Anna Snider
Creative Writing, Eating Disorders

Faculty sponsor: Anna Pennell

Session: Posters and Exhibitions 3: Art, Creative Writing and Eating Disorders, Economics and Education Studies, Environmental Studies and French, Health Sciences, MLSP, Principled Problem Solving and Honors Contracted Course, Religious Studies

Location: Main Level Poster and Exhibition Space • Time: 2:15-3:30

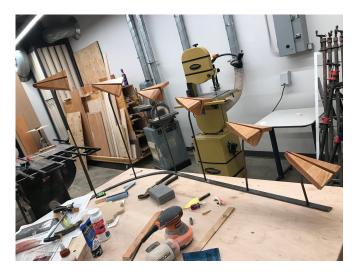
#### Should states invest in college education?

Brandon Sullivan Economics, Education Studies

Faculty sponsor: Bob Williams

Session: Posters and Exhibitions 3: Art, Creative Writing and Eating Disorders, Economics and Education Studies, Environmental Studies and French, Health Sciences, MLSP, Principled Problem Solving and Honors Contracted Course, Religious Studies

Location: Main Level Poster and Exhibition Space • Time: 2:15-3:30



# Call and Response: Bruce Gray's Paper Airplane Elliott Szewczyk

Art

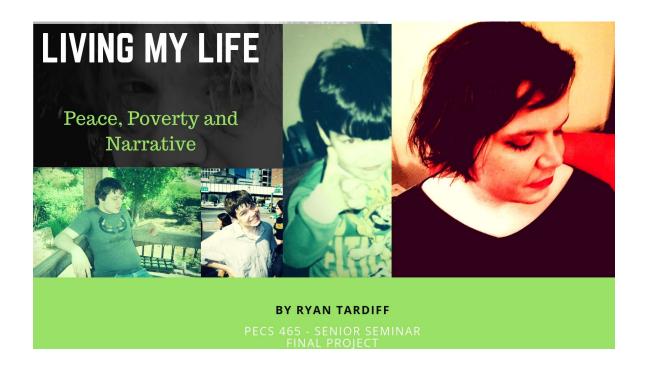
Faculty sponsor: Mark Dixon

Session: Posters and Exhibitions 3: Art, Creative Writing and Eating Disorders, Economics and Education Studies, Environmental Studies and French, Health Sciences, MLSP, Principled Problem Solving and Honors Contracted Course, Religious Studies

Location: Main Level Poster and Exhibition Space • Time: 2:15-3:30

In my Sculpture 2 class we were assigned to do pre-project research on an artist we wanted to "respond" to. I chose Bruce Gray's sculpture Paper Airplane which he originally made out of

aluminum. So for my response I decided to make paper airplanes out of wood and present them in a chronological way to make them appear as if they are flying away.



### **Living My Life: Storytelling, Poverty & Autoethonography**

Ryan Tardiff
Peace & Conflict Studies

Faculty sponsor: Zulfiya Tursunova

Session: 1. Exploring the Nature/Culture Interface; 2. Living My Life

Location: Art Gallery • Time: 1:15 PM

Autoethnography is a practice that marries memoir, sociology and other disciplines into a storytelling form that allows for deep interaction with the storyteller, as well as creating a more nuanced understanding of the patterns and practices that underlie the situation described. Within this presentation, there is consideration both of the path that was taken by the student, now in their early 30s to start and ultimately finish school later than their peers - including family divisions, setbacks, lack of inter-relationships and lack of access to funding sources.

While couched within the personal nature of their own narrative, it also attends to the persistence of perseverance narratives such as 'the bootstraps myth' and the extent to which it pervades American conceptions of poverty. Also considered are the complexities of family life, especially when those relationships are strained, and the effects this has on people's lives. As well, there are considerations of interactions with class, solitude and individuality especially in relation to narrative, solidarity and interdependence.

## Family Loyalties: Hardships of War Driving Confederate Soldiers from Floyd County, Virginia, to Desert During the Civil War, 1861-1865

Morgan Tompkins
History

Faculty sponsor: Damon Akins

Session: Short Talks: African and African American Studies and History, German and American History, German and Women's, Gender, and Sexuality Studies, History, Religious Studies and Quaker Studies

Location: Experimental Classroom • Time: 12:45 PM

This paper explores how societal standing influenced the decision of a soldier from Floyd County, Virginia, to desert during the Civil War. While some scholars have claimed that the combination of multiple factors led soldiers to abandon post, I argue that hardships at home were the primary influence for soldiers from Floyd County in the decision to leave. Many soldiers see desertion as a coward's way out of the war, but this paper seeks to give credit to those who left to support their families in style of a true Southern gentleman. By examining patterns of desertion in time, age, wealth, occupation, and family size, I have drawn a correlation between poor social standing and desertion. In an area with few slaves and even fewer slave owners, most men enlisted because they wanted what was best for their families. This same ideology is also what led them to leave the war. While this study is purely quantitative, the numbers suggest that the families of most deserters would have struggled tremendously from war shortages, and this would have weighed in the minds of each soldier as he made his decision to leave. The source base includes federal census data to analyze the above categories, and regimental histories to determine a soldier's result of service. This study seeks to tell an often untold story of the war from the perspective of those leaving it, as well as explore why soldiers deserted as a means to understand why they enlisted at the start.

### **Defense Against the Dark Arts Digital Bestiary**

Cynth Torres
Religious Studies

Faculty sponsor: Tierney Steelberg

Session: Posters and Exhibitions 3: Art, Creative Writing and Eating Disorders, Economics and Education Studies, Environmental Studies and French, Health Sciences, MLSP, Principled Problem Solving and Honors Contracted Course, Religious Studies

Location: Main Level Poster and Exhibition Space • Time: 2:15-3:30

Over the course of the semester the class of Defense Against the Dark Arts compiled a digital bestiary as a way of creating an interactive platform of presenting a comparative research project in the field of religious studies. Topics on the website included vampires, mermaids, ghosts, Chinese fox fairies,

Baba Yaga, amongst other supernatural entities. My own group was concerned with dragons and Naga, with the comparative aspect being how the spread of Buddhism affected the myth and folklore of both creatures. Part of the aim of undertaking such a project was to provide a scope of analysis that allowed students to explore their topics and provide a modes of defense while also encouraging us to complicate our modalities of thought in order to explore themes of folklore and myth.

### The real: Higher Education

Celene Warren Higher education

Faculty sponsor: Michelle Ward

Session: Short Talks and Visual
Presentations: Community and Justice
Studies and History, Criminal Justice and
Forensic Biology, Higher Education, History,
Peace & Conflict Studies and Sustainable
Food Systems

Location: IDEA Incubator • Time: 11:00 AM



Lets get "real" about higher education. Come and discuss what I noticed at ACPA and whats really going on within higher education. Lets break down hierarchical systems of Higher Education together.



## Fed Challenge: A Snapshot of the US Economy

Caroline Webster, Hannah Rouse, Ben McVey, Brayden Currin, Enrique Gudino, Ben Miller Economics

Faculty sponsor: Robert G. Williams

Session: Short Talks and Panel Discussions: Economics, German and History, History, Psychology Location: IDEA Incubator • Time: 9:45 AM

The Federal Reserve Challenge is an academic competition put on every year by the Federal Reserve. Students must present to judges on economic conditions within the United States up to and including the day of the presentation. This year, the Guilford College Federal Reserve Challenge team came in second place in the regional round. This presentation is an updated version of the talk given

this fall during the competition. This updated presentation will primarily focus on economic indicators used at the competition such as GDP, the labor market, domestic and foreign economic threats, and inflation. Additionally, we will brief the audience on changes in the economy since the fall, including the growing market for securities backed by subprime auto loans.

### Every Campus A Refuge Project (Group Presentation): Journey to the United States

Hsar Ree Ree Wei Every Campus A Refuge

Faculty sponsor: Diya Abdo

Session: ECAR

Location: Experimental Classroom • Time: 2:15 PM

The refugee experiences has often been told through the perspectives of a non-refugee. This is problematic because refugees are being dehumanized and labeled in discriminatory ways. In advocating for the refugees, I am combating the negative publicity through interviewing a refugee to share their lived experiences. This short documentary will highlight the refugee issues from a refugee who fled from political corruptions and violence in their home country to a neighboring country where they sought asylum. Refugee status was granted to them, but the hardships of being undocumented are inevitable in the new country. The story of this individual will discuss their journey to the refugee camp, life in the refugee camp, and their new life in the United States. However, being present in the US does not end all life hardships for refugees; in fact, there are untold life scenarios that is like another battle to fight against. This documentary humanizes the experiences of refugees and centralizes their voices.

### Mineralogy and Petrology of Dali Marble

Molly Welsh Geology

Faculty sponsor: Holly Peterson

Session: Posters and Exhibitions 1: Art, Biology, Criminal Justice and Psychology, Experience Design, Geology, Physics and Electrical Systems, Religious Studies and Quaker Studies, Sustainable Food Systems and History

Location: Main Level Poster and Exhibition Space • Time: 10:45-12:15

### **Preliminary Cabarrus County Food Assessment**

Ethan Wickliff
Sustainable Food Systems

Faculty sponsor: Zulfiya Tursonova

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00

During World War II, over a hundred thousand Japanese Americans living on the west coast of the United States were moved to internment camps in the Midwestern US states. For this presentation, we will be focusing on the Gila River internment camp and Colorado River internment camp, which were located on Indian reservations. In both internment camps, the Japanese Americans participated in helping transform the Indian reservation lands they lived on into prime farm land. This presentation will discuss the agriculture contributions made by the Japanese Americans to the Indians living on the Colorado River Indian Reservation and Gila River Indian Reservation during World War II and examine how those contributions effected the Indian Reservation's modern agriculture program today.



#### **When Fashion Meets Art**

Deanna Widemon Experience Design

Faculty sponsor: Antoine Williams

Session: Special exhibitions
Location: Carnegie Room • Time: 12-3 pm

This exhibition is applying the fundamentals of art into fashion and performance. The pastel and floral (rosebud) fabric exudes the simplicity of spring and its softness. Traditionally spring colors are bright and vibrant whereas I'm showcasing a softer and neutral (calm) take on spring with lighter tones with a emphasis of the blooming of flowers with the floral fabric. I'm utilizing the simplicity to convey the emotions I associate with during this particular time of the year through color, texture, and form.

### **Colleges for 100% Green Summit**

Caroline Williams, Hannah Cadenhead, Elliott Szewczyk Principled Problem Solving

Faculty sponsor: Sonalini Sapra

Session: Posters and Exhibitions 2: Art, Art and Physics, Biology and Public Health, Chemistry, History, Principled Problem Solving, Sustainable Food Systems, Theatre Studies Location: Main Level Poster and Exhibition Space • Time: 12:45-2:00



The Colleges for 100% Green Summit is a day long event being curated by three Guilford College CPPS scholars. Our goal is to bring together bright minds to create discussions that are sustainability focused, foster learning and growth, inspire change, and provoke conversations that matter.

### **Black Culture and Style in 21st century**

Phillip Williams, Rebecca Jacque
MLSP

Faculty sponsor: Paula Hernandez

Session: Short Talks: Community and Justice Studies Capstone, Political Science, MLSP

Location: Art Gallery • Time: 10:00-10:15 AM

A look into Black culture and style in the 21st century. Black culture and style have been have shaped everything from politics to pop culture. In this presentation black culture and style will be compared to give a better understanding on how they correlate and actively influence the next generation of style. Research done with students of color on Guilford College's campus will be presented as well as important and relevant cultural clothing will be presented with more in depth meanings of these objects. Black culture and style has such an importance in today's society and this presentation will shed a new light on it and give a better understanding of what makes it so important.

### **Spanish Senior Capstone Research Projects**

Olivia Winder, Kaeli Frank, Christelle Akue Ka Spanish

Faculty sponsor: Karen Spira

Session: Spanish presentations and capstone Location: Experimental Classroom • Time: 11:15 AM

Ciberseguridad: un reto mundial y sus limitaciones en Argentina y Colombia Cybersecurity: A worldwide necessity and its challenges in South America Argentina and Colombia

Christelle Akue Ka

Advancement in technology has created a huge dependency on digital information. Although that dependency has positive effects, it also makes necessary robust cyber security that can protect against its negative effects. Many countries in Latin America experience limitations while trying to implement cyber security strategies. Argentina and Colombia have developed national security strategies to prepare their nations against trending incidents, but they face legislative as well as budgeting adversities in the process of applying these strategies. This comparative analysis will provide an overview of the difficulties that developing countries face with cyber security.

Para Proteger un Niño: El rol de la inocencia de niñez en películas de guerra To Protect A Child: The Role of Childhood Innocence in Wartime Films Olivia Winder

For my project, I examined the idea of innocence. I wrote about the innocence of childhood that is shown in wartime film. I focused on two movies: Guillermo del Toro's film Pan's Labyrinth about the Spanish Civil War and Andres Wood's film Machuca about the Chilean dictatorship. Through examining the films, I discovered how both films show that the innocence of children can protect them from the trauma of war.

La representación de mujeres latinas en programas de televisión contemporáneos The Representation of Latina Women in Contemporary Television Shows Kaeli Frank

Leo R. Chavez's book The Latino Threat identifies and deconstructs many of the stigmas behind Latina sexuality in the United States. He specifically analyzes the role of Latina representation in contemporary media, and how it contributes to a fear of Latina fertility and reproduction. This raises the question of whether current television shows support or reject these stereotypes, and how this subsequently contributes to the societal view of Latina women. In this project, two contemporary series, Jane the Virgin and Orange is the New Black, are analyzed in accordance with the stereotypes identified by Chavez, and assessed based on character dialogue and interactions with other figures.

The role of mother-daughter relationships and generational differences in particular are investigated as a possible turning point for societal perspectives of Latina women.

### **DNA Evidence: Guilty of Being Wrong**

Savannah Yale Criminal Justice, Forensic Biology

Faculty sponsor: Catherine Bonventre

Session: Short Talks and Visual Presentations:
Community and Justice Studies and History,
Criminal Justice and Forensic Biology, Higher
Education, History, Peace & Conflict Studies and
Sustainable Food Systems



Location: IDEA Incubator • Time: 11:15 AM

As of March 2019, there have been 364 people exonerated by post-conviction DNA testing from crimes they did not commit (Innocence Project, n.d.). While DNA evidence has been pivotal in showing that the criminal justice system is not error-free, DNA testing itself is also not error-free. West and Meterko's (2014) analysis of the first 325 DNA exonerations in the United States showed that the misapplication of DNA evidence at trial contributed to eight wrongful convictions. Two more exonerations have been added to the list of misapplied DNA cases since the 2014 study (Innocence Record, n.d.). Using the Innocence Record database, the aim of this project was to apply the case study research approach to develop an in-depth understanding of the cases, including identifying any commonalities and/or patterns among them. To accomplish this, trial transcripts, lab reports, expert testimony and officer reports were reviewed. Beyond an in-depth description and analysis of the cases, this study suggests areas for further research with the aim of improving policy and practice.