Southern Connecticut State University

Undergraduate

Research & Creativity

Conference

Saturday, April 20, 2024

A letter from the Undergraduate Research and Creativity Conference Planning Committee:

The most beautiful thing we can experience is the mysterious.
It is the source of all true art and science.
– Albert Einstein

While science and art are said to activate opposite sides of the human brain, they ultimately share a key purpose in the human condition: to enlighten. Scholars from all disciplines within the arts, education, humanities, sciences, social sciences, and business set out to quantify the intangible, shine a light of understanding upon the unknown, and harness the mystery seeping deep into the corners of our very existence. Though these disciplines have varying degrees of creativity and logic, they all rely on observation, interpretation, and documentation in one form or another to share this enlightenment. We appreciate them all, hoping to gain knowledge, understanding, and appreciation of the world around us.

Scholarship and creativity act as the glue that binds humanity together, collecting us in the shared purpose of enlightenment. It is with respect to this purpose that we set out to gather and celebrate the scholarship and creativity of the students at Southern Connecticut State University. It is our honor as members of the organizing committee to welcome you to the 8th Annual Undergraduate Research and Creativity Conference, hosted by Southern Connecticut State University. This conference is a celebration of scholarship and creativity in all forms, as well as a showcase for the leading minds of today's undergraduate community. As an educational institution, Southern seeks to promote interdisciplinary academic careers and both logic and creativity are key components in individual, economic, and societal success. The posters, oral presentations, art installments, and other various exhibitions highlighted in this conference demonstrate the diverse scope of subjects engaged by students from many disciplines as well as illustrating the parallels between them. The Research and Creativity Conference is a celebration of our journey to enlightenment. It aims to not only encourage continued work by the undergraduate community, but also to awaken individual curiosity and purpose. So it is with great pleasure that we present the scholarship and creative activity featured this year and invite you to join in what promises to be an unparalleled demonstration of undergraduate accomplishment.

The 9th Annual Undergraduate Research and Creativity Conference is proudly sponsored by

The SCSU Foundation
The Office of the Provost/Vice President of Academic Affairs
Division of Research and Innovation
The Research and Scholarship Advisory Committee
The Office of STEM Innovation and Leadership
The Art Department
The Office of the President

Conference Committee
Listed in alphabetical order:

Charles Baraw
Kelly Bordner
Christine Broadbridge
Jeremy Chandler
Qu Chen
Emma Cross
Younjun Kim
Frances Penny
Heather Stearns
C. Michele Thompson
Jonathan Wharton
Bogdan Zamfir

9th Annual Undergraduate Research and Creativity Conference

Saturday, April 20, 2024 | 9:00 a.m. – 3:30 p.m.

Southern Connecticut State University

9:00 – 9:30 a.m.	Check in Poster and oral presentation set-up	3rd floor Ballroom Reception Area
9:30 – 9:45 a.m.	Welcoming Remarks:	3rd floor Ballroom

Michele Thompson, Ph.D. | *Prof. of Southeast Asian History & Chair of the Research and Scholarship Advisory Committee*
Robert Prezant, Ph.D. | *Provost & Vice President of Academic Affairs, Southern Connecticut State University*

10:00 – 12:30 p.m.	Organized Panel – Session 1	ASC room 306
	Organized Panel – Session 2	ASC room 308
	Oral Presentations – Session 3	ASC room 309
	Oral Presentations – Session 4	ASC room 311
10:00 – 12:30 p.m.	Organized Panel – Art Installations	Buley Library Art Gallery
12:00 – 1:30 p.m.	Art Crawl & Lunch	Earl Hall

Join us for lunch at Earl Hall and explore the creative works of undergraduate Fine Art Students in Graphic Design, Painting, Drawing, Sculpture, Ceramics, Photography, Printmaking, and Jewelry/Metals.

1:00	Coffee & Dessert	3rd floor Ballroom Reception Area
1:00 – 3:30 p.m.	Poster Session	ASC Ballroom

10:00 – 12:30 p.m. | Organized Panel – Session 1

ASC Room 306

Navigating the New Generation: First Year Teachers in the Classroom.

OP1.1 *Finding Your Voice in the Classroom*

Author(s): Larry DeLucia
Faculty Mentor: Prof. Andrew Smyth
Department: English
Abstract: As I embarked on my student teaching journey, I was committed to practicing radical cognitive empathy, which emphasizes student-teacher interactions to nurture positive relationships as well as a positive learning environment. While I made great progress in applying this approach, I encountered challenges with some students exploiting this empathy to avoid expectations, and as all educators know, once boundaries are stretched too far, redefining them sometimes becomes daunting.

Transitioning into my teaching career, my greatest struggle has been classroom management. Although confident in my teaching abilities, I find myself still challenged by students who show disinterest in learning. While empathetic to their perspectives – we were all students once too – I recognize the need to develop a firm and effective "teacher voice." Therefore, this presentation aims to explore strategies for new teachers to discover their authentic "teacher voice" within the classroom.

In essence, this presentation will offer insights into teacher-student dynamics and classroom management, further cultivating a genuine teacher persona and integrating it into instructional practice to better support students. Through formal research, field experiences, and surveys, the intended goal is to develop practical frameworks that modern educators can adopt to enhance instruction as well as student rapport, engagement, and support.

OP1.2 *Work Refusal and Motivation*

Author(s): Winter Pendragon
Faculty Mentor: Prof. Andrew Smyth
Department: English
Abstract: My section of the panel will be handling the rising trend of student work refusal and with that, the lack of motivation and why the incoming waves of students are no longer able to handle the same level of work as five years ago. In my own personal observations and in conversations with colleagues, we have concluded that the work we give students in 2024 is unlike the work that, in their situation, they would have given five years ago in 2019, or in my situation, I would have completed without a problem in high school in 2019. Further, students will now refuse to complete assignments using class time and will choose to use their phones or play online games. They will then turn in those same assignments clearly having used AI to generate their writing rather than attempting to create something of their own using critical thinking skills. All of these behaviors are forms of work refusal and display an overwhelming lack of motivation.

In this research project, my aim is to explore whether this work refusal is a product of post-COVID habits or if students struggle to see the value of education in recent years. I will provide and analyze research-based motivational strategies to handle work refusal or to configure a solution to this rising problem.

OP1.3 *Addressing Anxiety in the Classroom*

Author(s): Amanda Marquis
Faculty Mentor: Prof. Andrew Smyth
Department: English
Abstract: From student teaching and all my experiences within the classroom, I have noticed that anxiety (diagnosed or not) is a big issue. Due to most people with anxiety disorders not being eligible for 504 or IEP plans, their challenges and issues tend to go unnoticed in a classroom setting. Many students are not able to voice their needs because their anxiety is preventing them from doing so, or they think their voices will not be heard. I will show how teachers can advocate for those students and make the classroom more accessible to them. Most people have some kind of anxiety, whether it is debilitating and diagnosed or a minor inconvenience to them.

In my student teaching experience, absence is a major issue. Sometimes, students blame it on mental health issues, such as anxiety. I know many students, and people in general, suffer from anxiety that prevents them from going to school. For my presentation, I will review recent research on anxiety in adolescence and interview and survey teachers and/or students at my student teaching placement.

My presentation will provide active strategies teachers can implement in the classroom to make it more inclusive and anxiety-friendly. I seek ways to make students feel safe and welcomed in the classroom.

Overall, I plan to provide more insight into instructional strategies to better assist students who have (un)diagnosed anxiety.

OP1.4 *From Passive Learners to Active Participants: The Essence of Student-Centered Education*

Author(s): Ava Krajewski
Faculty Mentor: Prof. Andrew Smyth
Department: English

Abstract: Despite its prevalence in educational discourse, a coherent understanding of what constitutes a truly student-centered environment remains elusive to the average first-year teacher. The definition of this pedagogical strategy has become ambiguous because of the varying perspectives around the educational sphere. This research is motivated by the need to clarify this term, which has become a buzzword in the past years in educational circles, and to equip my fellow first-year educators with an essential comprehension of this idea for effective implementation in professional contexts.

Drawing on diverse personal moments, including classroom experiences at Southern Connecticut State University, professional development sessions during student teaching, and departmental meetings, I am looking to uncover the essence of student-centered education.

I have employed a mixed-methods approach comprising anonymous surveys and interviews. This data will be collected from students, administrators, and educators. Through rigorous analysis and synthesis of these insights, I plan to implement this information into my own first-year teaching experience.

10:00 – 12:30 p.m. | Organized Panel – Session 2

ASC Room 308

The SHAWN Project: Life During COVID for Justice-Involved Women Who Use Drugs.

OP2.1 *Justice Involved Women in New Haven: Strengths & Challenges*

Author(s): Samanta Morrison
Faculty Mentor: Prof. Amy Smoyer
Department: Social Work

Abstract: The SHAWN Project is a community-engaged research project that seeks to build knowledge about the impact of COVID-era changes in criminal legal policy on the HIV risk behaviors of justice-involved women who use drugs. Convenience sampling is being used to recruit justice-involved women with a history of drug use. To date, 13 women have participated in the study. This presentation shares preliminary findings from the quantitative portion of the study.

After informed consent is administered, participants are asked to complete a socio-demographic survey that includes questions about myriad life experiences: family, employment, housing, health care access, drug treatment, incarceration, and relationships. Next, two qualitative interviews are conducted. Data collection occurs during three appointments and participants are compensated for their time.

The quantitative data that has been collected paints a picture of vulnerability and resilience. Almost all the women report experiences of interpersonal violence and homelessness. They report using a range of substances and having limited access to treatment. All had been to prison at least three times. Engagement with social services is limited and women rely on informal support from family and friends. Despite these challenges, women reported high rates of self-efficacy and optimism.

These findings identify a range of unmet needs and invite social workers and community partners to consider how services could be expanded to better meet the needs of vulnerable women. Findings highlight the women's psychosocial strengths and underscore the importance of partnering with women to prioritize needs and reduce the harms associated with drug use.

OP2.2 *Digital Storytelling: Reflections on Qualitative Methodologies*

Author(s): Sabrine Yaser
Faculty Mentor: Prof. Amy Smoyer
Department: Social Work

Abstract: Digital storytelling is a community-engaged narrative tool that invites people to share stories about their lives in order to build human connection and inform public policy and programs. As a videographer, ethnographer, and SHAWN Research Assistant, I participated in an 8-week virtual digital storytelling course taught by StoryCenter, a non-profit in California dedicated to building digital storytelling practices. In this presentation, I will offer a brief overview of the training and share the digital story that I produced during this course. Next, I will describe how digital storytelling is being used by the SHAWN team to collaborate with justice-involved women to share narratives about COVID-era experiences. Ideas for integrating digital storytelling into social science research and social work practice will be presented and explored. The challenges and opportunities presented by this innovative methodology will be discussed.

OP2.3 *The Impact of COVID on Women Who Use Drugs: A Case Study*

Author(s): Kyle Magri
Faculty Mentor: Prof. Amy Smoyer
Department: Social Work

Abstract: Changes in criminal-legal practices during COVID resulted in a 47% drop in the number of incarcerated women in Connecticut between March 2020 and March 2021. This scenario created a unique opportunity to build knowledge about the lived experience of justice-involved women who use drugs during this moment in time when policy decreased the use of corrections. The study asks, What happens when she is not incarcerated? Convenience sampling was used to recruit justice-involved women with a history of drug use. Two qualitative interviews were conducted with each participant: a life history interview and a COVID interview (March 2020 to March 2021). Each interview lasted one hour and participants were paid $40 per interview. Rapid qualitative analysis and thematic analysis were used to manage, organize, and interpret the data. Southern CT State University IRB reviewed and approved this protocol.

This case study presents study participant, Queen. Themes that arose in her interview included grief and loss, unemployment, housing insecurity, substance use, and social support. Her experience during COVID was one of isolation and anxiety. The trauma and grief related to the death of two of her sons were activated by the loss that permeated society during COVID. Her hope for the future was fueled by deep family connections. Queen's story illustrates the failure of community-based services to support vulnerable women during COVID. These findings invite investment in harm reduction services and grief counseling. Queen's story exhibits the power of informal social networks and invites social workers to collaborate with these caregivers.

OP2.4 *The SHAWN Project: Overview of Goals & Methods*
Author(s): Jenny Malcein
Faculty Mentor: Prof. Amy Smoyer
Department: Social Work
Abstract: During COVID, the number of women incarcerated in CT dropped by 47%. This drop was primarily among women serving less than a year. In other words, women were not incarcerated during COVID for minor non-violent crimes like larceny, sex work, and drug possession and sales. This change in criminal-legal policies created a natural experiment that can expand knowledge about what happens to law-breaking women when they are not incarcerated. SHAWN is a NIDA funded community-engaged research project designed to evaluate and understand this unique moment in history. SHAWN uses multiple qualitative methods to build knowledge about the impact of COVID-era changes in criminal-legal policy on the HIV risk behaviors of justice-involved women who use drugs. This presentation will present the study's goals, specific aims, and methodologies. Information about the research protocol and the theory and existing research that shaped the project design will be shared.

OP2.5 *You are not alone: The impact of criminal-legal systems on SCSU undergraduates*
Author(s): Mellody Massquoi
Faculty Mentor: Prof. Amy Smoyer
Department: Social Work
Abstract: Research has documented the impact of criminal-legal systems on incarcerated people, formerly incarcerated people, and the family of incarcerated people, especially minor children and intimate partners. Less is known about how these systems impact the extended family, adult children, and friends of justice-involved people. A survey of students at Southern CT State University was conducted to build knowledge about the extent to which college students are impacted by criminal-legal systems. A convenience sample of 195 undergraduates found that 57% of them had a friend or family member who had been incarcerated or supervised by parole or probation. Compared to white students, black students were more likely to report that family or friends had been incarcerated. These findings speak to the intersecting oppressions that college students negotiate and the need to provide them with supportive services and programs related to criminal-legal impact. Future research can further explicate how relationships with justice-involved people impact college students' psychosocial outcomes.

OP2.6 *Engaging Undergraduates in Research: A Process Evaluation*
Author(s): Shoshana Mahon
Faculty Mentor: Prof. Amy Smoyer
Department: Social Work
Abstract: There is a lack of racial diversity among university faculty in the United States. This lack of diversity among academics hinders the development of new knowledge by limiting the perspectives and experiences that inform science. In addition, predominately white faculty can make it colleges less welcoming for students of color. Engaging undergraduates in research is one strategy for building more inclusive university communities. Undergraduates who are involved in research are more likely to pursue graduate and doctorate degrees. This presentation will share research about the challenges to building a PhD pipeline that includes Black, Latine, low-income, LGBT, and first-generation scholars and best-practices for overcoming these challenges. The SHAWN Project will be presented as an example of a project that designed to build a new generation of diverse scientists. Specific examples of the ways in which SHAWN has sought to recruit and retain unrepresented scholars in research will be shared. Lessons learned and strategies grounded in harm reduction will be explicated.

10:00 – 12:30 p.m. | Oral Presentations – Session 3

ASC Room 309

OP3.1 *Post Recovery*

Author(s): Connor Elci
Faculty Mentor: Prof. Dana Rogers
Department: COM FTDP
Abstract: During my time at Southern, I have worked on and off at The New London Homeless Hospitality Center as a caretaker. My perspective on life completely changed while I worked there and truly made me grateful. I made many relationships there and learned of my many coworkers' life stories of being addicted to drugs and or homeless. Two employees are two women named Dorothy Ames and Trish Rios. Both women have experienced horrors of drug addiction as well as homelessness in Southeastern Connecticut. I filmed an interview with both to share their stories of the recovery but also the importance of giving back to those who are currently struggling. The interview series, titled Post Recovery shares how both Dorothy and Trish beat their demons and now work amongst those currently in the fight.

OP3.2 *Our Voice: Illuminating Educational Injustices in CT*

Author(s): Aliyah Graham
Faculty Mentor: Prof. Dana Rogers
Department: Communication
Abstract: My presentation is about the critical intersection of activism and education equity, highlighting systemic disparities within the Connecticut education system. Education equity remains a pressing issue, with tuition hikes for public institutions', major disparities in funding, resources, and access to opportunities persisting among students across various districts and socioeconomic backgrounds. The purpose of this project is to raise awareness about these inequities, amplify marginalized voices, and inspire meaningful action towards positive change for the students at Southern Connecticut State University. Through this project, I have learned about many of the complex challenges facing students in Connecticut, as well as the importance of grassroots activism and community engagement in addressing these issues. By amplifying diverse perspectives and advocating for equitable policies and practices, the goal is to catalyze tangible change within the education system. My hope is that my capstone will serve as a catalyst for dialogue, empowerment, and collective action, ultimately leading to a more just and equitable education system for all students in Connecticut.

OP3.3 *Surviving Adversity*

Author(s): India Goodman
Faculty Mentor: Prof. Shelley Stoehr-McCarthy
Department: English
Abstract: Surviving adversity is a multi-faced journey marked by transformation and fortitude. My paper delves into the challenging circumstances George M. Johnson goes through by being a queer, Black male. It examines those intersectionalities and explores how he navigates adversity, later learning and growing from it. Acknowledging the intersectionality of adversity, recognizing social inequalities, historical trauma helps see that it can shape an individual.
The concept of surviving encapsulates the capacity to bounce back from adversity and adapt. George's real-life anecdotes helped me better explain the factors that contribute to surviving, essentially allowing me to explain that going through those challenges leads to lessons learned, lessons about personal growth, advocacy, empowerment, and self-acceptance.

OP3.4 *Disproportionate PFAS Exposure Across Communities of Color in the United States*

Author(s): Princess Frimpong & Anuli Njoku
Faculty Mentor: Prof. Anuli Njoku
Department: Public Health
Abstract: Per- and poly-fluoroalkyl substances (PFAS), also commonly referred to as "forever chemicals", are persistent, man-made compounds that are extremely difficult to break down and destroy in the environment. Recently, PFAS has become a global public health concern due to its widespread environmental contamination of elements including water and soil. They have been used for commercial and industrial purposes since the 1940s. In addition, exposure to PFAS has been associated with an assortment of chronic diseases and other conditions, such as elevated cholesterol, altered liver function, low birth weight, immune system and endocrine disruptions, and multiple cancer types. Communities of color in the United States are disproportionately exposed to PFAS contamination sources due to the unequal siting of PFAS pollution sources such as airports, landfills, major manufacturers, and wastewater treatment plants near these communities. A great deal remains unknown about PFAS, and the levels at which

detrimental health effects may occur are substantially lower than formerly anticipated. Therefore, additional research is needed. The purpose of this presentation is to discuss recent epidemiologic studies on disparities in exposure to PFAS in drinking water. Strategies will also be suggested to prevent disproportionate exposure to PFAS among communities of color and low income-in the United States.

OP3.5 *Hex's Transformation*

Author(s): Katie Nichols
Faculty Mentor: Prof. Shelley Stoehr-McCarthy
Department: Secondary English Education

Abstract: The essay that I would like to present is about the novel "Love In The Time of Global Warming" by Francesca Lia Block. The essay focuses on the overall theme of the novel, which is transformation. But it specifically focuses on one of the characters named, Hex. The essay also reflects the transgender community, seeing as Hex is part of that community and represents a lot of the struggles that coincide.

10:00 – 12:30 p.m. | Oral Presentations – Session 4

ASC Room 311

OP4.1 *A Zooarchaeological Analysis of Late Pleistocene Faunal Assemblages from Gona, Ethiopia: The Fauna From Busidima South and Kilaitoli*

Author(s): Charmaine Robichaud
Faculty Mentor: Prof. Michael Rogers
Department: Anthropology
Abstract: The Gona Project has been proven to yield significant archaeological discoveries, spanning from 2.6 mya to the end of the Late Pleistocene. These sites each have something to offer such as lithics, faunal preservation, and hominid and or human remains. Two areas in particular, Busidima South (BSS), dated between 40-60kya, and Kilaitoli (KLT), dated to approximately 13kya, have not had any formal zooarchaeological faunal analysis conducted. So, to better understand ancient hunting preferences and diet breadth, as well as form a basic paleoenvironmental reconstruction, both sites underwent a thorough faunal analysis. Several site localities from both BSS and KLT were analyzed to ensure an adequate sample size. Both sites were compared based on the fauna represented, elements that displayed evidence of human processing, the variety or lack of variety in diet, and used all faunal data to create a basic paleoenvironmental reconstruction. Results indicate a more generalized and opportunistic hunting approach at the BSS sites, focusing on smaller bovids ranging from size 1-3b. The represented fauna indicated a savannah type of grassland with access to water based on the presence of reedbucks. The more recent site, KLT indicated a targeted hunting strategy, focusing on large bovids, specifically size 4 bovinis, as well as an interest in fish. The fauna represented indicates a savannah with potentially scattered woodlands. These diet preferences are contrary to general conclusions of Middle Stone Age and Late Stone Age and pose the question of how and why these sites became unique for their time periods.

OP4.2 *Digital Mammalogy Collection*

Author(s): Carina Andrea, Danielle Minicucci, & Miranda Dunbar
Faculty Mentor: Prof. Miranda Dunbar
Department: Biology
Abstract: In this project SCSU's museum collection of mammal specimens was digitized in the form of an online database. A total of 184 specimens consisting of articulated skeletons, taxidermy mounts, and skulls were selected, photographed, labeled, and sorted by taxonomic classification. Diagnostic tools were used throughout this process in order to identify and highlight the important features of each species. The digital collection spans 15 distinct orders of mammals, and includes 118 different species. The goal of this project was to create a resource for future mammalogy students. This is also the first step to making a public database where any person can access the information.

OP4.3 *Intersectionality and the model minority myth: A Study About How Anti-Filipino Sentiment in Hong Kong Impacted the Careers of Filipino Cantopop Stars*

Author(s): Jen Ng
Faculty Mentor: Prof. Michele Thompson
Department: History
Abstract: In my thesis I am discussing the discrimination that Filipino people working in the Cantopop industry faced as singers. Cantopop is a genre of music from Hong Kong which reached its peak popularity around 1970's to 2000's. This period of time also overlaps with Britain's 156 years of colonial occupation of Hong Kong. I am connecting the two identities: being a famous Cantopop star, which comes with privilege, with being Filipino-Hong Konger, a marginalized community who face discrimination in Hong Kong by Chinese-Hong Kongers. In this project I discuss the model minority myth, and how the incentive to match the expectations of others as a way to 'overcome' discrimination actually hinders people from being authentic confronting and calling out discrimination directly; specifically how the model minority myth might exist for Filipino-Hong Kongers within the Cantopop music industry. While stardom comes with the privileges of having an audience, discrimination and stereotyping still exists. Though people who have had their 'big break' may enjoy luxuries, their fame is an image which often conceals the parts of themselves they might be ashamed of. In Hong Kong, the discourse around diversity and equity is different than America because the history and context is different. The issue of discrimination in Hong Kong cannot be solved with American solutions, because each solution must be curated from members of its own communities.

OP4.4 *Developing a Unique and Accessible Video Game Catalog Entry Template for use with Video Game Collections in Public Libraries*

Author(s): Jason Myers
Faculty Mentor: Prof. Yan Liu
Department: Information and Library Science

Abstract: This presentation outlines the development, analysis, and presentation of a unique and user-friendly video game catalog entry template optimized for implementation in American public libraries. After explaining the challenges facing video game accessibility and cataloging in the library community, the author of this research reviews the three-phase research plan governing his research, which involved the synthetization and analysis of existing data on the subject, the testing of a draft template against real video game metadata, and the collection of opinions on a late-stage sample template from library patrons and staff. This latter phase receives a dedicated analysis breaking down comments and preferential patterns from both library patrons and librarians on the template's practicality and ease of use. After sharing human research-influenced refinements to the template, the author engages readers in a tour and explanation of the research's final results, including a template containing six broad metadata categories and forty-two metadata elements and their related subfields. By research's end, the proposed template shows aptitude in organizing and displaying video game metadata in a practical and accessible format favored by library patrons, and thus provides an effective solution to cataloging complex video game metadata in libraries; additionally, there are plans for further catalog refinement and real-world implementation in the future.

10:00 – 12:30 p.m. | Organized Panel – Art Installations

Buley Library Art Gallery

OPA.1 *Expressing Myself Through Art*
Author(s): Mariln Childs
Faculty Mentor: Prof. Greg Cochenet & Prof. Jeff Slomba
Department: Art
Abstract: Throughout my different works of art, I share personal experiences through form, texture, and shape. Sculpture has allowed me to express myself with various media such as wood, metal, and apoxie resin. I use these different materials as an extension of myself. Each project evokes a completely different emotion-- the vast uniqueness across my collection of sculptures brings them together and displays my wide range of work.

OPA.2 *The World to Come*
Author(s): Noa Cancelmo
Faculty Mentor: Prof. Gregory Cochenet
Department: Art
Abstract: I make art about my life, about the people and plants and interior spaces I love, about memories that make me feel connected to the past, and as a practice that helps me feel more deeply rooted to the present. I am inspired by mother nature, by the beauty of simple pleasures of the everyday, and by incorporating images that represent my dreams and prayers for my future and for a more peaceful and just world into abstract work.

In a society full of so much fear, oppression, and suffering, and at this critical time of compounding immense social and environmental crises, creating art is an essential part of how I care for myself and attempt to cultivate joy. I am always aiming to release myself from expectations about how my art looks and focus instead on how it makes me feel; I relish in the altered state that drawing or painting for hours can cultivate – a place of peace that allows the tired mind or broken heart to rest. My process often involves collage or watercolor when experiencing deep grief or sadness or anxiety to alchemize those emotions. Above all else, I hope that my work is experienced as deeply honest, and perhaps as an invitation to pause and exist as an observer of the beauty of this moment, or as a gentle reminder that we are alive and here to experience and cultivate pleasure and beauty.

OPA.3 *Dreaming of Suburbia*
Author(s): Gillian Murray
Faculty Mentor: Prof. Mia Brownell
Department: Art
Abstract: When people think of the "American Dream", they often think of suburbia: uniform houses, one next to the other, all lined with white picket fences. Translating this idea of uniformity and utopia into acrylic paintings and pencil drawings allows me to explore the appeal of suburbia. The repetition and patterns of the similar houses creates a sense of comfort and serves as a strong visual foundation, however, there is unknown activity going on inside of each house that is masked by each of their unassuming exteriors.

Using a bright, pastel dollhouse like color palette, my work illustrates nostalgic, childhood feelings. I show how this "picture perfect world," is a façade. I create a romanticized version of suburbia that allows me to bridge the world in which some dream about and others avoid.

OPA.4 *Celt-ish Roots: Art, Identity, and Forging Both*
Author(s): Elisedd McGinley
Faculty Mentor: Prof. Greg Cochenet
Department: Art and Design
Abstract: This presentation uses metalworking as a means of exploring familial, individual, and cultural identity. Through forging brass, copper, and bronze, the artist presents a study of otherness and Irishness, Americana and individualism, through metal art both whimsical and brutalist in design.

OPA.5 *March 20th*
Author(s): Sara Lareau
Faculty Mentor: Prof. Gregory Cochenet
Department: Art and Design
Abstract: March 20th is an anthology horror series of self contained short stories each coming in a variety of forms with a key emphasis on shareability; meant to be spread amongst your respective friends at the darkest of hours on the most haunted of days. Horror, the delicacy it is, is to be shared not kept. March 20th predominantly comes in the form of Zines, acting as an easy quick low cost way to share these stories while online short comic installments act

as major narrative punches for the overarching story. Each installment of March 20th acts as a fragment to the spanning narrative you can slowly piece together in whichever order you find them. Now as you start your journey watch the shadows, prepare for the unknown and don't shake hands with The Stranger.

OPA.6 *Extinctimals*
Author(s): Daniel Rosario
Faculty Mentor: Prof. Gregory Cochenet
Department: Art and Design
Abstract: World-Building is the art of creating a new fictitious reality. The act of world-building is not to create from nothing; rather it is the combination and assimilation of concepts and ideas to form and fuel imaginative worlds. The world I create is one of fantastical extinct creatures. A world which combines mythology and zoology. My characters utilize the vast record of human imagination, legend, and folklore to bring about the fantastical worlds and stories I create. I breathe life, personality, and memorability into all my pieces through color theory and rhythm; leading the eye through my pieces and creating powerful focal points with the assistance of contrasting colors. My largescale pastel on paper pieces utilize vibrant colors, reminiscent of childhood cartoons, along with crosshatching and texturing styles to bring the viewer into my prehistoric world. A world where strange dinosaur like creatures jump out of the page. A world where the viewer can become completely immersed. The world of Extinctimals.

OPA.6 *Kishi Kaisei (Wake From Death and Return To Life)*
Author(s): Jonathan Lapo
Faculty Mentor: Prof. Mia Brownell
Department: Art and Design
Abstract: What is stoicism? Stoicism is an ancient philosophy that teaches people to focus on what they can accept, control, and find inner peace by living through nature and reason. It emphasizes self-control, resilience, and finding contentment in the present moment.

This surreal series, titled "Kishi Kaisei (Wake From Death and Return To Life)", represents Stoicism by painting images of people facing hardships along with "Lil Buddy," an original, fictional character. "Lil Buddy" is benevolent and has every intention to help empower the people they encounter. Based upon myself who had a quiet nature growing up, and used the enigma of the "Lil buddy" to represent someone who's closed off, introspective, and misunderstood based on looks, where they are from, or how they speak. Like a box, you don't know what's inside of it unless you open it up, and that same analogy applies to people as you never know someone until they open up to you.

The cartoon-like character represents how someone may feel isolated based on events happening in their life. They bottle their emotions inside, to not bother anyone, but are still able to be present when being with people. In those dark times, comes a journey of healing and understanding. Those dark times help develop your mind, soul, and spirit to adapt to overcome challenges and work to improve your flaws. The confidence you gain from this journey of self-love is what makes us all human.

OPA.6 *A Modern-Day Tragedy*
Author(s): Hailey Buinauskas
Faculty Mentor: Prof. Mia Brownell
Department: Art and Design
Abstract: By using color pastels, I explore various emotions providing a modern spin on ancient stories so that more people can connect with them and maybe even learn something. I focus mostly on Greek Mythology which has always been a topic of exploration for me through different books and even movies I have surrounded myself with.

OPA.6 *Most Likely To Be Slaughtered*
Author(s): Tiffany Goss
Faculty Mentor: Prof. Gregory Cochenet
Department: Studio Art
Abstract: The feelings surrounding womanhood are personal and vary person to person. The theme of my work revolves around the role of hunter and its prey. I took inspiration from other forms of media to best represent it in my work, specifically horror films like Carrie, Jennifer's Body, and The Neon Demon. These movies take the violent experiences of women and show them in a bloody, gruesome light while contrasting it with a soft, pink aesthetic that is traditionally feminine. That trope serves as symbolism for my own experience. I always felt like timid prey in the jaws of predators; just waiting to snap shut. The predator for me, is society and its need to put women in a box. I get scared that this idea of womanhood will swallow me whole and devour

me, like the rabbits in my work. They too were just existing then snatched up to be mutilated and consumed, only to be discarded once their purpose is gone. I use the stuffed rabbits and transform them into something beyond their original use. Cutting them apart and stitching them back together. I purposely choose to keep their seams and trauma on display for the viewer. Womanhood feels like a performance. It's no different than this body of work I created. A body to be gawked at for entertainment and dissected for some form of meaning.

OPA.6 *Longing for Love*
Author(s): Danielle Minicucci
Faculty Mentor: Prof. Jeremy Chandler
Department: Studio Art
Abstract: My photographic series titled Longing for Love is compiled of 5 18x24 inch framed digital prints depicting longing, vulnerability, loneliness, and self acceptance throughout dating culture. I drew inspiration for this project largely from my own personal experience. This series is a part of the 2024 senior exhibition What's for Dinner currently on display in the Buley Art Gallery.

My series explores the emotional landscape of longing for love and the ensuing loneliness that comes with the absence of romantic interest. Through digital photography, I create a staged non-linear narrative about the deep silent yearning for affection that goes beyond family love. To be noticed without having to corrupt my own morals and values in a world where values and morals are no longer considered.

OPA.6 *The Sacred Land*
Author(s): Isra Hanaif
Faculty Mentor: Prof. Chandler Jeremy
Department: Studio Art
Abstract: As a first-generation Palestinian American photographer, I decided to dedicate my exhibition work based on my religious and cultural background. In a society full of technology that usually reconstructs and influences the way people act and talk, unfortunately, impacts some individuals with different backgrounds and beliefs lose their unique identities. I feel that it's important to hold onto those sacred traditions based on where you're from because what good would it be if we all acted, talked, and looked the same? Your unique features and different traditions are what make you stand out from the rest. It is important to embrace who you are and where you came from because that can easily be slowly erased in a society like today, where everyone is obsessed with having and looking the same as their favorite influencer or celebrity. As someone who comes from an indigenous background where my country is slowly being wiped out of the map. I connect and take this matter seriously. That is mainly why I chose to, create and display my photos in the Buley Library exhibition at Southern to educate and share the importance of being proud of your culture and where you come from. In my photographs, I will be portraying what it feels like to be a Palestinian easily with the horrific event that is currently taking place and what has been going on for the last 75 years. I also chose to include iconography that ties to the sacred land, that is Palestine.

1:00 – 3:30 p.m. | Poster Presentations
ASC Ballroom

P1 *STEM VS. Non-STEM Majors, Anxiety, Feelings of Belonging, and Academic outcomes*
Author(s): Briana Perigyi & Parker Hunter
Faculty Mentor: Prof. Scott Jackson
Department: Academic Affairs
Abstract: Research has shown that anxiety and feelings of belonging directly impact academic outcomes. Moreover, literature has demonstrated that gender differences of professors in multiple academic domains additionally impact academic outcomes. We aimed to identify if gender differences impact academic outcomes, anxiety, and feelings of belonging in STEM versus non-STEM majors at SCSU. Previous research has demonstrated stark differences in feelings of anxiety and belonging in STEM majors in women, compared to men. This study examined whether SCSU exhibited these notable differences.

We expected results in the SCSU population that corroborated the preexisting literature. To accomplish this, we utilized the Southern Experience Survey from 2018-2022 (N=1912). We selected items associated with belonging and anxiety and controlled for race and ethnicity. We included academic outcome (i.e., GPA). Results identified that female students reported higher GPAs than male students, regardless of STEM major status. Additionally, our research corroborated preexisting studies such that female students reported higher anxiety than their male counterparts. However, unlike the literature, STEM status did not influence these results. When examining discrimination, we included race and ethnicity within our variables of STEM and gender. The results demonstrated people of black or African American descent, Asian descent, and two or more races, in STEM majors, reported higher feelings of discrimination in their given STEM major.

While these are a portion of the results, it is imperative to address the overarching feelings of discrimination, anxiety, and belonging in our student body population. As the literature demonstrates, these variables directly influence academic outcomes.

P2 *Microanatomy of Adult and Pup Harbor Seal, Phoca Vitulina, Trachea*
Author(s): Allison Kross & Dr. Meghan Barboza
Mentor: Prof. Meghan Barboza
Department: Biology
Abstract: Many past studies have addressed a diverse array of knowledge of harbor seals (Phoca vitulina), such as ecology and behavior, but few studies have been done on anatomy of the species and even fewer on the microanatomy of their organs. This study aims to address this gap in research and describe the microanatomy of the trachea of the harbor seal. Portions of cranial trachea from an adult and pup harbor seal were obtained. The adult trachea examined had two rings of cartilage which had a diameter of 2.1 cm. The pup trachea had a total of six rings and a diameter of 2.0 cm. For examination, portions of both were sectioned on a cryostat at 7 µm and stained using hematoxylin and eosin, Gomori's Trichrome, and toluidine blue. The microscopic anatomy of the trachea observed was similar to other pinnipeds and mammals. Common features include ciliated pseudostratified columnar epithelium, hyaline cartilage rings, and abundant goblet cells. A change in morphology of the tracheal cartilage was observed progressing from complete rings cranially to a gap caudally. Uniquely large veins were found within the submucosal layer throughout the trachea. The veins ranged in size from 280-400 µm long and 150- 200 µm wide. With the results of this study, we will fill the gap in knowledge of the unique microanatomy of the trachea of harbor seals.

P3 *The Inhibitory Effects of Cannabinoids on Acetylcholine Esterase Using Computational Docking and Virtual Technology*
Author(s): Paula-Marie Simpson
Faculty Mentor: Prof. Jiong Dong Pang
Department: Chemistry
Abstract: The growing prevalence of age induced neural degenerative diseases, such as Alzheimer's (AD) and Parkinson's pose an immediate threat to public health In America. They are the leading cause of dementia and the fourth leading cause of death affecting millions worldwide. Galantine, is an inhibitory drug derived from the Amaryllidaceae family the only FDA-approved botanically derived treatment for alleviating synmptoms related to AD. It improves neurodegenerative symptoms by inhibiting neuro-enzymes such as acetylcholine esterase (AChE), thus increasing deficient acetylcholine levels associated with the disease. Medicinal plants like galantamine offer a wide range of therapeutic benefits due to their diverse bio active compounds and provides minimal environmental impact compared to synthetic drugs.

Preliminary research suggest that canabinoid compounds, derived from cannabis sativa plant may also provide similar inhibitory effect however, further comprehensive research is required to confirm their competitive inhibitory effects compared to Galantamine. This research study investigates the inhibitory effect of Delta -8 and Delta-9 THC compounds on AChE. To gain a deeper understanding of the binding affinity of the cannabinoids, computational chemistry techniques and virtual reality applications were utilized to visualize the AChE in 3-dimension.

P4 *2-Hydroxyacetophenone as a Substrate for the Petasis Reaction*
Author(s): Mark DeLima
Faculty Mentor: Prof. Todd Ryder
Department: Chemistry
Abstract: The Petasis borono-Mannich reaction is a multicomponent process involving a boronic acid, an amine, and a carbonyl substrate. The reaction has many notable applications, including the synthesis of the ACE inhibitor, enalapril. This research is investigating the Petasis reaction between 2-hydroxyacetophenone, styrenyl boronic acid, and a series of amines. The most promising results thus far have utilized amino alcohols as the amine component.

P5 *Petasis Reactions of 1,3-Dihydroxyacetone*
Author(s): Francesca Kleine
Faculty Mentor: Prof. Todd Ryder
Department: Chemistry
Abstract: The Petasis multicomponent reaction has received attention from the organic chemistry community as an efficient method to prepare synthetic targets that would otherwise be difficult to access. Although the reaction is traditionally done with aldehydes, a handful of examples have been reported using ketones, including 1,3-dihydroxyacetone. In fact, an approved drug for multiple sclerosis (fingolimod) has been synthesized using a Petasis reaction of this substrate. The goal of this project is to explore the scope of the Petasis reaction of 1,3-hydroxyacetone with various amines and boronic acids.

P6 *VOICES of Resilience*
Author(s): Kiarah Slade
Faculty Mentor: Prof. Dana Rogers
Department: Communication
Abstract: Domestic abuse is a pressing social justice issue, reflecting broader systemic inequalities and power imbalances. This op-ed project aims to shed light on its multifaceted nature, urging proactive steps towards prevention, support, and societal transformation.

The project's background emphasizes the urgency of addressing domestic abuse as a symptom of entrenched societal injustices. Its purpose is to catalyze a shift towards empathy, accountability, and empowerment, challenging cultural norms and amplifying marginalized voices.

Major aspects include exploring various forms of abuse—physical, emotional, financial, and digital—through survivor testimonies from the Safe Futures VOICES Committee, research, and policy analysis. It also delves into intersections with race, gender, socioeconomic status, and cultural norms.

Through this project, insights into the complexities of domestic abuse have been gained, revealing systemic barriers survivors face, including stigma and institutional failures. It highlights the importance of trauma-informed approaches and survivor-centered advocacy.

The project's impact lies in its potential to spark dialogue, policy reforms, and grassroots activism. By fostering awareness, challenging victim-blaming narratives, and promoting survivor autonomy, it aims to dismantle structures enabling abuse and pave the way for healing and justice.

Ultimately, collective action and solidarity are crucial in confronting domestic abuse and advancing towards a more equitable and compassionate society.

P7 *Home Is Where the Heart Is - Children's Book on Hardships*
Author(s): Madison Markelon
Faculty Mentor: Prof. Dana Rogers
Department: Communication
Abstract: According to a survey I have sent out, 86% of Southern students and staff have experienced hardships such as homelessness, alcoholic/drug-addicted parent(s), and parent(s) with mental illness. Growing up in these hardships

is challenging -- filled with feelings of helplessness, loneliness, and sadness. These challenges and more are things I have experienced within the last 10 years.

For my Student Research & Creativity proposal, I would like to share my research on hardships, and the effects it has on young children growing up. Alongside my research, I have created a children's book addressing these themes in a way that children will not feel alone.

There is a massive need for books like mine to be published and distributed to youth. Growing up, I felt isolated and ashamed by the circumstances I was thrown, however, as I have grown up I have realized that it was never something to be ashamed of. Rather, it is something that we were taught to frown upon.

I believe sharing my research with the Southern community will make a substantial impact by destigmatizing hardships and creating a resource for those going through hard times.

During the conference, I will have a printed version of the book, an annotated bibliography, and the survey results available for the Southern community to view. Thank you for taking the time to read my abstract, and I hope to hear from you soon.

P8 *Promoting Inclusivity: A Training on Addressing Microaggresions on Campus*
Author(s): Erian Diaz
Faculty Mentor: Prof. Dana Rogers
Department: Communication
Abstract: Microaggressions, though often subtle, have significant and lasting impacts on individuals and communities, perpetuating inequities and hindering efforts toward fostering inclusive environments. Recognizing the imperative need to address this pervasive issue, our project aims to develop and implement a comprehensive training initiative on microaggressions within SCSU's campus.

The background of our project is rooted in the recognition of microaggressions as barriers to diversity, equity, and inclusion on campus. Through engaging in constructive dialogues and conducting thorough research, we identified the need for proactive measures to educate and empower individuals to recognize, address, and prevent microaggressions effectively.

Key elements of our project include conducting a needs assessment survey to gauge the community's knowledge and experiences with microaggressions, developing training modules encompassing diverse perspectives and strategies for intervention, and implementing interactive activities to foster understanding and empathy.

Through our project, we have learned that microaggressions are pervasive across various demographic groups and often go unrecognized or unaddressed. By raising awareness and providing tools for intervention, we seek to empower individuals to become active allies in combating microaggressions and fostering inclusive environments.

Our findings highlight the importance of ongoing education and dialogue in addressing microaggressions and promoting cultural competency. This training aims to give students and faculty the knowledge and skills to identify and address microaggressions as we aim to cultivate a campus culture characterized by respect and inclusion. This project catalyzes broader conversations and actions toward creating equitable and inclusive spaces for all members of SCSU.

P9 *People With High Functioning Disabilities Should Be Treated Equally as People Without*
Author(s): Nico Giano
Faculty Mentor: Prof. Dana Rogers
Department: Communication
Abstract: Research indicates that 85% of adults with Autism are unemployed. It's very hard for people with Autism to find jobs because employers either don't know how to properly train someone with a high functioning disability or they don't want to take the time to train them. However, if given the chance and appropriate accommodations, people with autism can do well for themselves and the employers they work for. My capstone project is designed to show the public that people with high functioning disabilities should be given the chance to succeed in a work environment. I have written a research paper that talks about my personal experiences, it features answers from subjects I interviewed that for many years have worked with people that have high functioning disabilities, and it goes into detail about how this topic isn't addressed enough. I have also created a brochure that will hopefully spread the message that these people should be given a chance to succeed like everyone else. I am someone who has High Functioning Autism and I was told at a young age that I would never be able to do things like ride a bike, drive a car, or even make it in college. I have proven everyone wrong and have shown that I can do things that others can do just as well, if not even better

in certain ways. This capstone will bring more awareness to the work environment and show that these are still people that deserve a chance.

P10 *Higher Education; The Inequitable Opportunity*
Author(s): Alexis Szymecki
Faculty Mentor: Prof. Dana Rogers
Department: Communication
Abstract: Each year the rise of tuition costs are burdening students, and even deterring prospective students. In December, Connecticut State Colleges and Universities (CSCU) implemented a 5% tuition increase for the fall of 2024, further diminishing the likelihood of many who hoped to attend college. The present study investigates the funding of higher education in the state of Connecticut. Through a multidimensional analysis, the research explores the depths of financial support for higher education institutions, budgets, tuition and fees, and a new "Equitable Access Program". By examining these facets, the study aims to bring attention to the inequitable cost of higher education, and identify the underlying fees that challenge a student's ability to attend a college or university.

P11 *Exploring Student Clinician's Self-Reflection and Book Selection in Promoting Diversity within Communication Disorders Interventions*
Author(s): Xinyi Gao
Faculty Mentor: Prof. Svenja Gusewski
Department: Communication Disorders
Abstract: This study focuses on the connection between the self-reflection of graduate clinicians and their book selection practices in the context of promoting culturally-sustaining interventions for communication disorders. Despite decades of research highlighting the significance of inclusive practices, a gap persists in implementing culturally-sustaining practices. To address this gap, this project examines how clinicians' awareness of culturally-sustaining practices align with their actual choices in selecting picture books for therapy sessions. Fifteen graduate student clinicians completed an online survey ranking different aspects of cultural responsivity (e.g. sharing of pronouns, adapting to English Learners, understanding of racism, etc.) on a scale from 1 to 5. All books available to graduate student clinicians in the university clinic were categorized on whether they depicted characters in 6 diversity categories (e.g. race/ethnicity, language status, religion, body size, disability, gender). Results will showcase the frequency of diverse book categories selected by graduate student clinicians and examine correlations between self-reported cultural responsivity and book selection tendencies. This study contributes to advancing diversity considerations within Communication Disorders interventions by elucidating the interplay between clinician awareness and book selection practices, thus paving the way for more inclusive therapeutic outcomes.

P12 *The Revolutionary Farmers of America*
Author(s): Cole Sierpinski
Faculty Mentor: Prof. Dana Rogers
Department: Communication, Media, and Screen Studies
Abstract: It is time that we shift the narrative on the environmental impacts of the agricultural industry. Extensive scientific research conducted on regenerative agriculture, a modern interpretation of traditional methods, has found that the utilization of its principles has a positive impact on our environment, the revitalization of natural recourses, reduction of carbon emissions, and has the potential to reverse the negative effects of climate change. In an industrialized world a return to traditional practices might be perceived as regressive, when in fact its adoption will revolutionize the agricultural industry. This serves as the inspiration behind my project and the formation of the Revolutionary Farmers of America (RFA). The RFA is a non-profit campaign that I have created that intends to generate awareness for ethical, sustainable, and regenerative agricultural practices, as well promote the incredible work of American farmers and ranchers to an audience of young people within the Generation Z demographic. I selected the social media platform of Instagram as the communication medium for this campaign, as I wanted to reach the target audience of Generation Z on the platform that they are most active on. I have developed a communication campaign through the creation of a creative brief, an Instagram content calendar, and various posts, stories, and reels for the campaign's official account. This was an effort to ensure that I developed the most effective communication messages possible that promote regenerative agriculture, encourage conscious consumerism, and inspire people to re-establish their connection with the land and animals.

P13 *CCCP2 to VCF File Converter*

Author(s): Christa Lehr
Faculty Mentor: Prof. Sahar Al Seesi
Department: Computer Science

Abstract: Consensus Caller Cross-Platform (CCCP) is a software tool uses DNA and RNA sequencing data to predict variations (single nucleotide variants (SNVS) and short insertions and deletions), which are places in the DNA where the bases differ from the species reference genome. An SNV in a genomic location where a single DNA base differs from what is expected at that position. An insertion/deletion is where there's at least one extra/missing base at a particular position in a organism's DNA. CCCP specifically looks at tumor specific genomic variations data that is of interest to researchers developing cancer immunotherapy treatments. CCCP is part of larger suite of tools that is used to guide developing these immunotherapies. The second version of GeNeo is currently being developed and it supports insertions and deletions genomic variations, not only in CCCP2 (the new version of CCCP), but in other tools in GeNeo.

CCCP2 outputs variants information in a non-standard file format. This makes it difficult for researchers to then pass the information into other programs for further analysis. In this research, we developed a file format convertor that takes two CCCP2 output files and generates one output file in Variant Call Format (VCF) file. VCF is a standard format that can then be used with many tools in the area of bioinformatics research. The converter gives the user the option of converting just genotypes, just indels, or both, into a VCF file This work was done using AWK and Linux shell script.

P14 *Using Artificial Intelligence to Predict the Outcome of Batted Bolls and Evaluate the Impact of New MLB Rules*

Author(s): Sam Trumbley
Faculty Mentor: Prof. Winnie Yu
Department: Computer Science

Abstract: Recently, the MLB has seen patterns of change in the sport that have seemingly hurt the viewing experience. The length of games has seen consistent increase, and the sabermetric approach most teams have taken, which values home runs and slugging, has led to less action overall. The MLB decided to implement several new rules for the 2023 season that would hopefully combat these issues. These rules include a pitch clock, larger bases, and the banning of infield shifts. In the first season with these rules, it seems the MLB has been successful in their attempt to increase offense and make the game more engaging. Stolen bases, hits, and batting average all went up from the 2022 season to the 2023 season. However, I wanted to dig beyond these statistics to see just how impactful these new rules are, specifically the ban on infield shifts. This idea inspired me to utilize artificial intelligence and machine learning to evaluate the impact by comparing the two seasons. The data from the two seasons were collected from Baseball Savant. Each dataset uses six unique features to predict the outcome of batted balls, and three different classifiers are utilized to project the outcomes. The results from comparing the predicted hits from the 2022 season support the claim that the rules were effective in increasing offense. The predicted hits were greater than the actual number of hits from the 2022 season, confirming that if the rules were implemented earlier, it would have led to more offense.

P15 *Deep Dive Into Depth Sensing Technology*

Author(s): James Petkin
Faculty Mentor: Prof. Winnie Yu
Department: Data Science

Abstract: This research focuses on depth perception and how the current depth-sensing technology can improve image recognition and biometric authentication. Against the backdrop of evolving AI technologies and deepfake practices, this study aims to explore and evaluate the vulnerability in authentication using 3D (with depth) versus 2D images. We employed the StereoBM algorithm from OpenCV to compute disparity maps from pairs of stereo images, mimicking human depth perception. It introduces a function, extract_2d_features, which utilizes grayscale conversion, histogram analysis, and the Canny edge detector to extract comprehensive 2D features from images. Similarly, extract_3d_features are defined to analyze depth maps through Gaussian filtering, gradient computation, and depth magnitude assessment, forming a multidimensional feature vector. Real-time image processing is demonstrated through continuous frame capture from a camera feed, applying Laplacian filters and Canny edge detection to enhance and visualize edges. Finally, the project explores authentication between 2D and 3D images using ORB feature detection and brute force matching in OpenCV, establishing a secure feature comparison and verification methodology. The findings will enhance understanding of depth sensing technology and inform its secure application in facial recognition and broader implications for the field's future trajectory.

P16 *Photogrammetry and Outcrop-Scale Mapping of Brittle Structures in the Orenaug Basalt, Pomperaug Basin, Connecticut*

Author(s): Bianca Chernowsky
Faculty Mentor: Prof. Jennifer Cooper Boemmels
Department: Earth Science

Abstract: The Pomperaug Basin is located within the towns of Woodbury and Southbury, Connecticut. The basin is an early Mesozoic rift basin situated between the larger and more prominent Hartford and Newark Basins. The bedrock of the basin includes three basalt lava flows alternating with sedimentary layers. The lava flows provide valuable clues about the volcanic activity in Connecticut's geologic past and are part of the Central Atlantic Magmatic Province. In the Pomperaug Basin, the primary ridge-forming unit is the Jurassic Orenaug Basalt. This Jurassic lava flow was regionally significant and is equivalent to the Holyoke Basalt in the Hartford Basin and the Preakness Basalt in the Newark Basin.

Photogrammetry revolutionizes geological research by efficiently collecting data for interpretation and communication. Through detailed outcrop maps and panoramic views, it facilitates clear communication and distribution of findings among researchers and a broader audience. This method streamlines analysis and enhances collaboration, ultimately advancing our understanding of geological processes.

Photogrammetry in combination with field observations, was used to create detailed outcrop maps of the Orenaug Basalt. A range of structures such as columnar joints and faults and fractures of tectonic origin were identified. The tectonic faults and fractures, formed after basalt and steeply dipping N–S-trending fractures to moderately dipping WNW–ESE-trending fractures.

P17 *Testing Pleistocene Climate Change Using the Chemical Weathering of Glacial Lake Sediments from the Connecticut River Valley*

Author(s): Zanae McKenzie-Henderson
Faculty Mentor: Prof. Nicholas Fedorchuk
Department: Earth Science

Abstract: Understanding the causes of Earth's warming climate during the late Pleistocene Epoch (2.6 million -11,700 years ago) can aid in the prediction and interpretation of modern-day climate change. However, we have a poor record of the detailed climate fluctuations as ice retreated across Connecticut into Massachusetts starting 22,000 years ago. This project will address how climate has changed in Connecticut as ice retreated during the Pleistocene by studying glacial lake sediments in the CT River Valley. In Summer 2023, we sampled cores of annual layered sediments (varves) deposited in glacial lakes that once covered the Connecticut Valley. Samples were collected in Middletown, CT and near Hatfield, MA. We first determined the age of the varves by comparing their thickness to other records that have been dated using radiocarbon. We then examined the sedimentology of the varves to interpret depositional processes. Utilizing X-ray fluorescents (XRF) to gather major rock forming elemental data can be used to determine how much chemical weathering impacted the varves. Chemical weathering is closely related to the climate conditions of the time since there is more chemical weathering during warmer intervals. Running chemical weathering indices, showed how sensitive the varves are to climate changes and what small changes in climate can be observed. Through this research, it was tested how sediments can be used to understand past climate during glacial retreat.

P18 *Early Cretaceous Faults and Fractures in Eastern Vermont; A Field Investigation of the Mount Ascutney Region*

Author(s): Gaby Galicia Barrientos
Faculty Mentor: Prof. Jennifer Cooper Boemmels
Department: Earth Science

Abstract: In the state of Vermont, Mount Ascutney sits as a prominent landmark along the banks of the Connecticut River and is known to geologists as "Vermont's famous Volcano" (Walsh et al, 2019). Mount Ascutney is an isolated peak with a summit elevation of over 3000 feet above sea level within the Connecticut River Valley. The ancient volcanic activity and igneous rocks of Mount Ascutney date to approximately 122 million years ago during the Early Cretaceous (Walsh et al, 2020).

For this research project, field data were collected from the Mount Ascutney region. The goal of the research was to identify outcrop-scale faults and fractures that crosscut this pluton. These structures are important for understanding the structural geology of New England after 122 million years. Field results indicate that north-south trending fractures are crosscut by younger northwest-southeast trending fractures. In addition, two outcrop-scale normal faults were observed near the summit of Mount Ascutney. Lidar hill shade elevation models were evaluated for evidence of crosscutting structures at Mount Ascutney. The lidar data display similar structures at the large scale that were observed at the outcrop scale. These large-scale features may also be the product of normal faulting after 122 million

years, but further investigation is needed. This research has led to the development of a new upcoming research project on the Cuttingville pluton that is just 20 miles west of Mount Ascutney and approximately 20 million years younger.

P19 *Analyzing Spatial and Temporal Differences in Biodiversity Between Inner and Outer Fjord Sites in Eastern Iceland*
Author(s): Abby Boyle & Emma Cross
Faculty Mentor: Prof. Emma Cross
Department: Environment, Geography & Marine Sciences
Abstract: Fish farming is expanding in Iceland from the West to the East coast as demand for Atlantic salmon grown in pristine waters is increasing. Fish farms are proposed to be installed into Seyðisfjörður, a fjord in Eastern Iceland. Fish farming could impact fjords through increased organic matter, introduction of diseases and decreasing the wild populations of Atlantic salmon. Before these proposed fish farms are installed, biodiversity data has been collected from multiple sites in Seyðisfjörður, Eastern Iceland to determine baseline trends. One method of collecting biodiversity data is GoPro video surveys. The goal of this research is to determine if there are spatial and temporal differences between inner and outer fjord sites in Seyðisfjörður, Eastern Iceland. GoPro video surveys were collected in multiple sites in Seyðisfjörður, Eastern Iceland in July 2023 and September 2023. At each sampling site, GoPro videos were deployed at 2 meters, 7 meters, and 20 meters to capture biodiversity data from just below, in the middle and below a typical fish farm. This data has revealed spatial and temporal differences between inner and outer fjord sites. There was higher biodiversity in autumn compared to summer. There was also higher biodiversity in the outer fjord compared to the inner fjord. This data has shown the differences in biodiversity throughout the seasons and within the fjord. These results will be used in a long-term study on human impacts on a pristine fjord in Eastern Iceland, including monitoring impacts to biodiversity after the installation of fish farms.

P20 *Cultivating Potential: Assessing the Feasibility of Tank Cultivation for Seaweed Species, Gracilaria tikvahiae, in Lab Environments for Future Market Exploration*
Author(s): Jade Brennan & Emma Cross
Faculty Mentor: Prof. Emma Cross
Department: Environment, Geography & Marine Sciences
Abstract: As climate change warms our oceans, there is an urgency to explore the potential of Gracilaria tikvahiae, a warm-water seaweed species, which could serve as a valuable resource for mitigating environmental impacts and meeting demands in various industries. This research aims to evaluate the feasibility of cultivating Gracilaria tikvahiae in a controlled laboratory setting, with the objective of analyzing its market potential and promoting awareness of its diverse benefits through a market analysis. Gracilaria tikvahiae cultivation began at SCSU in May 2023 and due to successful growth in summer and fall, we expanded the culture to The Sound School in January 2024, employing varied lighting, temperature, density, and food sources to optimize growth. Cultures at The Sound School are divided into four k-wells, with ongoing maintenance including bi-weekly water changes, nutrient additions, and monitoring of salinity, pH, temperature, nutrients, and dissolved oxygen levels. Our maximum wet weight of all cultures was 15.85 kg before any harvesting. Furthermore, Gracilaria tikvahiae is being tested as a potential public food source and is being evaluated at UConn for its potential to reduce methane emissions in cow feed. The data suggests that Gracilaria tikvahiae can thrive in a controlled lab environment, offering potential for scalable cultivation and market analysis, while also presenting opportunities for future food demands and exploration for methane reduction, thereby highlighting its versatile applications. The findings of this study offer insights that can significantly contribute to filling gaps in knowledge regarding Gracilaria tikvahiae cultivation, unlocking its potential for various applications.

P21 *Building an Experimental System to Test Impacts of Ocean Acidification, Hypoxia, and Warming on Marine Organisms*
Author(s): Tyler Kenyon & Emma Cross
Faculty Mentor: Prof. Emma Cross
Department: Environment, Geography & Marine Sciences
Abstract: With climate change, biodiversity loss, and climate advocates emerging, we need to test and address the long term consequences of our consistently warming, acidifying, and deoxygenating ocean. To test these long term effects, we are building an experimental system that can replicate ocean acidification using carbon dioxide, hypoxia using nitrogen and warming using heaters. We decided to build this system because the long term effects of these environmental stressors to marine species are still vastly unknown. With a majority of our economy relying on fisheries in nations around the world, we need to find out how the species we harvest will be affected by our acidifying, warming and deoxygenating ocean. This system will be a fully automated recirculating aquaculture system that will be growing a range of marine organisms. This system will include header tank, experimental tanks, sump tank with filtration, chiller, heaters, and gas lines. The gas lines will be periodically bubbling in CO2 to raise acidity, O2 to increase hypoxia, and N2 to decrease acidity and hypoxia. The experimental system is still currently in the building

stage, however, we hope to find out how marine organisms will be affected in the long term and utilize our findings to help others find or follow solutions to benefit our economies and our world ocean as a whole.

P22 *Mediating Ocean Spaces: A 50-year Analysis of International Multilateral Treaties*
Author(s): Rebecca Stanton & Miriah Russo Kelly
Faculty Mentor: Prof. Miriah Kelly
Department: Environment, Geography & Marine Sciences
Abstract: In 2023, the establishment of the High Seas Treaty marked the first treaty to contain mediation language in an ocean-related international multilateral agreement in 14 years. The signing and ratification of this treaty, in the midst of the UN Decade for Ocean Science, and in consideration of massive socio-ecological impacts bearing down on marine spaces as a result of climate change and growth of the blue economy, the complexity of governing ocean and coastal environments continues to expand. Similarly, related marine conflicts continue to be an area of interest for coastal nations and pose safety and security concerns for international governance. Mediation as a field of theory and practice has a long history of being considered as an effective form of alternative dispute resolution (ADR) in environmental planning, decision-making, and policy building. This work builds on what is known about the use of ADR language in international negotiations to investigate the extent to which mediation-specific language is being codified as a peace-building resource in ocean-specific international multilateral agreements. A review of all ocean-related multilateral international treaties agreed to in the past 50 years (since 1973) were assessed for mediation text inclusion, and an analysis of findings is presented.

P23 *Rain Gardens as a Solution to Stormwater Pollution Entering Freshwater Ecosystems with Added Indirect Benefits*
Author(s): Alyssa Masi
Faculty Mentor: Prof. Miriah Kelly
Department: Environment, Geography & Marine Sciences
Abstract: Rain gardens are a form of green stormwater infrastructure (GSI) or a natural stormwater treatment system (NTS) that are becoming increasingly popular within urban communities. These gardens would thrive if utilized more often as a preventative measure against stormwater pollution within freshwater ecosystems. The Farmington River is a freshwater tributary stretching almost the length of Connecticut flowing through rural and urban communities while housing various kinds of flora and fauna. Due to the wide variety of activities along this river, it becomes more susceptible to polluted stormwater runoff. This paper aims to examine how developing Rain Gardens alongside the Farmington River would benefit the river itself, its ecosystem, and human health. These gardens are a low-cost, low maintenance option for stormwater treatment that result in both direct and indirect benefits within and around the river. We find that in implementing Rain Gardens along the Farmington River preservation of biodiverse species is enhanced with the application of ideal soil and vegetation, protection of the river's freshwater from harmful contaminants is increased, and promotion of environmental education within the surrounding communities is amplified.

P24 *Spatial Trends in Sediment Copper and Zinc Concentrations in Black Rock and Bridgeport Harbor*
Author(s): Autumn Smith
Faculty Mentor: Prof. Vincent Breslin
Department: Environment, Geography & Marine Sciences
Abstract: Located in southern Connecticut along the northern portion of central Long Island Sound, both Black Rock (BRH) and Bridgeport (BPH) harbors have a rich industrial history, and multiple known point sources of heavy metal contamination. This study determined copper and zinc concentrations of 39 surface sediment samples total collected in the two harbors during 2022-2023. Samples, collected by boat at predetermined sites using a ponor grab, underwent sediment loss on ignition (LOI) tests to determine the organic carbon content of each sample. The metals were extracted from the sediment using USEPA Method 3050B and quantified using flame atomic absorption spectroscopy (AAS). Spatial trends of each harbor's copper and zinc contamination were determined, and the NOAA Effects Range Low (ERL) and Effects Range Medium (ERM) thresholds helped identify areas that pose a threat to aquatic life in each respective harbor.

Sediment in both harbors exhibited a wide range of copper and zinc concentration, most of which exceeded their crustal abundances (25 mg/kg and 65 mg/kg, respectively). The lowest copper and zinc concentrations were found in the outer (southern) portions for the harbors, where there is typically less industry and urbanization; the highest were mostly confined to the inner (northern) inland portions of each harbor close to industry. A direct covariance between sediment copper and zinc concentrations was noted. Sediment metals also varied with sediment organic carbon content and sediment grain size. Results of this study will also be used to determine trends in sediment metal contamination in these harbors over time.

P25 *Applying Offshore Wind Innovations in Connecticut for a Sustainable Future: Management and Policy Solutions*
Author(s): Ashley-Lynn Antoine
Faculty Mentor: Prof. Miriah Kelly
Department: Environmental Systems and Sustainability
Abstract: Offshore wind farms serve a great environmental benefit alone, but more could be done in addition to provide a positive environmental impact. Many scientists have come up with strategies to make these wind turbines carbon neutral, implementing systems that sequester C02 and even home native plant and animal species. A state of the art pier has been built in New London Connecticut. The pier will be used to assemble 65 wind turbines that will be transported by boat to various spots to establish offshore wind farms along the east coast. Research shows that there are more advanced options that can enhance the positive environmental impacts that offshore wind farms can have on the environment such as seaweed farming off of the wind turbines in order to sequester C02, using Turbines sites for marine carbon dioxide removal technologies, placing nesting boxes near wind turbines and building structures on the turbines to house local species in order to restore native habitats and species of interest in and around Connecticut.

P26 *Developing Cultural Awareness in Chile through an Immersive Public Health Experience*
Author(s): Aaliyah Anthony, Gracie Marsh, Sara Bernal Garcia, Mia Berthiaume, Izabella Mott, & Lilly Paige
Faculty Mentor: Prof. Maria D. Krol
Department: Nursing
Abstract: SCSU's School of Nursing provided an opportunity for students to participate in a short term Public health program through the Universidad del Desarrollo to increase their knowledge about public health nursing in a developed country that is unique in its history and diverse population of the Indigenous Mapuche people and European descendants. Six students traveled to Santiago, Chile in the Spring of 2024. Overall Chileans experience good health due to their well organized and effectively governed health system and public health architecture. Chile, while healthy, is experiencing challenges in the areas which they are addressing with policy changes. These challenges include obesity, smoking, and early detection or diagnosis of malignant disease processes. The nursing students had an opportunity to learn differences at exist between Latin American counties. Cultural awareness and sensitivity are essential keys to being a successful nurse. Nursing students got to witness the strong rapport between the patient and the nurse through the active role of the nurse in the community. By understanding the different systems in healthcare, alongside the integration of culture, students were able to recognize similarities and differences in patient-centered care in the US and Chile. As students prepare to take their pledge to the nursing profession, their global competency of care had been transformed by unforgettable experiences and challenges that dedicate their careers to help resolve. Through an excellent partnership with the Universidad del Desarrollo, students were able to actively implement strategies to bridge the gap in addressing healthcare disparities.

P27 *The Effect of Biochar Concentration on Electrical and Structural Properties of Biochar-MnO2 Hybrid Capacitors*
Author(s): Vanessa Adamski
Faculty Mentor: Prof. Christine Broadbridge
Department: Physics
Abstract: The escalating demand for electrical energy in contemporary society necessitates both an increase in capacity and a diversification of storage methods to address evolving applications. The imperative of renewable energy sources has reached unprecedented levels, underscoring the need for efficient high-energy density storage solutions to mitigate inherent intermittency challenges. While lithium-ion batteries have conventionally fulfilled this role, environmental and humanitarian considerations have spurred exploration into alternative technologies. Hybrid capacitors emerge as a viable alternative and are progressively deployed in commercial and infrastructural sectors requiring high power-density and cyclic stability. Typically composed of carbonaceous and metal-oxide materials for non-faradaic and faradaic charge storage, hybrid capacitors offer fabrication from environmentally sustainable and cost-effective materials. Prior research highlights biochar and MnO2 as promising materials aligning with sustainability objectives. This study investigates the performance of MnO2-Biochar hybrid electrodes with varying biochar concentrations. The electrochemical properties of biochar-MnO2 electrodes are investigated with cyclic voltammetry and galvanostatic charge-discharge measurements with structural characterization provided by transmission and scanning Electron Microscopy, and x-ray diffraction analysis. Results indicate that specific capacitance of these composite electrodes reaches optimal levels at lower biochar concentrations.

P28 *Understanding Quantum Computing Algorithms and Materials for Industry Applications*
Author(s): Max Martone
Faculty Mentor: Prof. Christine Broadbridge
Department: Physics
Abstract: The next leap in computing will almost certainly come with the implementation of quantum computers and algorithms, which promise exponential computational efficiency over classical approaches for a wide range of important problems. Much of the work done thus far has been largely theoretical, focusing on the scalability of quantum hardware or investigating the P vs. NP problem. This exploratory study builds a foundation for understanding and working with quantum computation while also considering the challenges of practical implementation for application purposes. First, the key functional differences between classical and quantum computation were explored. Second, we investigated fundamental techniques such as the quantum Fourier transform and phase estimation, their importance to quantum algorithms, and how such techniques can be applied to real-world problems. Finally, Grover's and Shor's algorithm were implemented using IBM's Qiskit SDK and compared to their respective classical counterparts.

P29 *Examining the Utility of the Hitachi TM-1000 Tabletop Scanning Electron Microscope with Applications to Sustainable Materials Research*
Author(s): Maggie Blanchard & Snigtha Mohanraj
Faculty Mentor: Prof. Christine Broadbridge
Department: Physics
Abstract: The Hitachi TM-1000 is a tabletop scanning electron microscope (SEM) designed to easily provide high-resolution imaging capabilities due to its compact and user-friendly format. The TM-1000 simplifies the microscopy process by not allowing changes in voltage, electron source, and working distance while still allowing the operator to control focus, stigmation, and magnification. This study investigates methods to overcome the limitations of the instrument while also exploiting available points of alteration. Because the 15kV voltage is unchangeable, charging of materials becomes an issue. However, processes such as gold coating and using a charge-up reduction mode can counteract the effects, as exemplified when imaging cubic zirconium and wasp wing samples. Also, tungsten, the electron source, poses specific limitations and benefits. Although decently efficient and cheap, it has limitations regarding brightness, vacuum, and source size. In addition, the working distance cannot be changed with the tabletop set-up, however, working distance can be modified using carbon tape for gradual increments in the height of samples. Using carbon tape layers, height is increased by 0.16mm per layer of tape, consequently altering focus, which helps to determine the ideal working distance. To fully exploit the natural advantages of the table-top SEM, images can be taken after controlling focus, stigmation, and magnification. This was demonstrated in the proper imaging of various samples. Overall, this study researched the existing advantages of the table-top SEM while also investigating the non-idealities present and potential methods to overcome such barriers.

P30 *Pore and Lattice Imaging of Manganese-Dioxide and Biochar Composites for Supercapacitors*
Author(s): Andriy Grynyk
Faculty Mentor: Prof. Christine Broadbridge & Prof. Tom Sadowski
Department: Physics
Abstract: Lithium-ion batteries are known for their problematic impacts on the environment and human rights. Mining for raw materials, like cobalt and lithium, has proven to be energy intensive and poses health and safety risks to the miners. For these reasons and more, supercapacitors have seen an uptick in research and use. Besides various favorable properties such as a high level of power density, the material makeup of supercapacitors can be chosen to be more environmentally benign. Manganese dioxide and biochar are two materials of interest for sustainable energy storage and are the focus of this study. Composites of these were synthesized as the active material for supercapacitor electrodes, with the hopes of high specific capacitances using materials with minimal environmental impact. To understand how the structure of this composite material relates to its function, this study utilized the transmission electron microscope (TEM; conventional and high-resolution) for the analysis of the morphology, distribution, porosity, elemental composition, and crystallinity of the samples. Literature containing electron imaging of nanoporous carbon is scant; this work contains sample preparation and imaging results to help guide future studies. Moreover, lattice-spacing measurements and x-ray diffraction standards were analyzed to determine the phases of manganese dioxide. From the measurements performed, the samples appear to contain a mixed phase of hollandite (α-phase) and sodium-rich birnessite (δ-phase). These findings provide important nanoscale structure-property insight into the electrochemical measurements quantifying supercapacitor performance. Continued research in supercapacitors offers innovative leaps in producing a technology with higher specific capacitance and power density.

P31 *Advancing Carbon Capture Technologies: A Density Functional Theory and Experimental Approach to Nanoscale Porous Material Characterization*

Author(s): Cristian Sayers, Kaleb Roman, Thomas Sadowski & Christine Broadbridge
Faculty Mentor: Prof. Christine Broadbridge
Department: Physics

Abstract: Fossil fuels remain the dominant source of energy despite the remarkable progress made in renewable and sustainable technologies. This reliance necessitates exploration into innovative and focused initiatives to mitigate carbon dioxide emissions. Historically, carbon capture and storage technology has relied on chemisorption between CO2 and a suitable solvent. However, nanoporous physisorbent solids have emerged as promising alternatives due to their predicted gas energy efficiency and selectivity benefits. Nevertheless, exploiting these materials' inherent and novel capabilities is a complex task, as the cost of producing and evaluating these materials limits traditional trial-and-error experimentation used to discover material properties. To overcome this obstacle, computational techniques capable of predicting material properties are highly relevant and valuable. The critical parameter in assessing the viability of a material for carbon capture is the enthalpy of adsorption, defined as the energy change associated with the physisorption of a gas molecule to a solid surface. In this study, the enthalpy of adsorption is calculated between the well-studied metal-organic framework (MOF), Cu-BTC, and the components of ambient air within the plane-wave density functional theory (DFT) formalism. Exchange-correlation functionals with varying van der Waals correction schemes were considered, and the calculated values were compared to previous results at the same level of theory and experiment. The goal of this work is to establish a framework for a high-throughput workflow to efficiently find the enthalpy of adsorption, with the potential to be extended to less well-studied nanoporous materials, thereby expanding the range of materials potentially considered for carbon capture applications.

P32 *Can Elementary Aged Readers Use Dialogic Reading with Younger Children? Exploring Near and Far Transfer of EMPOWERED Strategies.*

Author(s): Cassie Nemec, Lastrianna Haynes & Eliana Tolentino
Faculty Mentor: Prof. Cheryl Durwin
Department: Psychology

Abstract: Past findings indicate that the shared book reading approach, Dialogic Reading with Integrated Vocabulary Enrichment (DRIVE), can be implemented as a cross-age intervention in schools (Mate et al., 2023). Within the DRIVE approach, strategies to develop vocabulary and comprehension are summarized by the acronym, EMPOWERED. Participants were 22 students in the 2022-2023 school year: 6 fifth graders and 8 first graders. Fifth and sixth graders (Big Buddies) were trained on the EMPOWERED strategies using the book Louise, The Adventures of a Chicken. Strategies used by students during training were recorded by undergraduate research assistants (RAs). When Big Buddies were paired with Little Buddies during cross-age intervention, RAs once again recorded the strategies used by Big Buddies during reading sessions. The current study extends the research by Baka and Diaz (2024) on treatment fidelity (the frequency at which EMPOWERED strategies are used within the DRIVE invention) by examining near versus far transfer of EMPOWERED strategies during the cross-age intervention when reading new books during the cross-age intervention (far transfer) compared to when reading Louise which Big Buddies were trained on (near transfer). Results show that EMPOWERED strategies are transferable from Louise to all other books. However, strategies were used 6.5% less of the time in any book other than Louise. Big Buddies made improvements in using Encourage Vocabulary, Make it Fun, and Prompt Frequently strategies but a decline was seen in usage of Open-ended Questions, Wh- Questions, Expand Responses, Encourage Repetition, Evaluate Responses, and Distancing Prompts strategies.

P33 *Treatment Fidelity of a Cross-age Dialogic Reading Intervention*

Author(s): Estela Baka & Glen Diaz
Faculty Mentor: Prof. Cheryl Durwin
Department: Psychology

Abstract: We are examining the treatment fidelity of the Dialogic Reading with Integrated Vocabulary Enrichment (DRIVE) Intervention in a fifth and sixth-grade population (Big Buddies) and first-grade population (Little Buddies). Treatment fidelity is the frequency with which a method is being applied reliably, so one can conclude its efficacy. DRIVE is a shared-book approach in which an older student reads orally and stops frequently to discuss the story using EMPOWERED strategies with a younger student to improve oral language skills and comprehension. The participants were 21 students: 6 fifth graders, 8 sixth graders, and 8 first graders. All except 6 sixth graders chosen had below-average comprehension or vocabulary scores during pre-testing. Undergraduate research assistants (RAs) first trained the fifth and sixth graders on the EMPOWERED strategies primarily using the book Louise, The Adventures of a Chicken. RAs recorded the strategies the students used through EMPOWERED checklists. Once the Big Buddies were proficient in using the strategies, they were paired with a Little Buddy to implement the intervention. The RAs, once again, measured how often the Big Buddies used each EMPOWERED strategy. The data for this study

was collected during the 2022-2023 school year. As an extension of Mate et al. (2023), we compared the treatment fidelity between the Big Buddy training sessions and cross-age intervention. The most frequent strategies were "Encourage vocabulary," "Wh-Questions," and "Open-ended questions." Across training and intervention, "Encourage vocabulary," "Open-ended questions," and "Distancing prompts" were the most consistently used.

P34 *Existential Questioning, Negative Affect, and Life Satisfaction in Inflammatory Bowel Disease*

Author(s): Evan Curtis, Estela Baka, Christopher J. Budnick, Ph.D. & Michael Nizhnikov, Ph.D.
Faculty Mentor: Prof. Christopher Budnick
Department: Psychology

Abstract: Background: Chronic diseases prompt existential questioning and affect emotional well-being and life satisfaction. For example, negative affect and life satisfaction have an influence on mental health, especially in dermatological patients (Schuster et al., 2019). Furthermore, research explores connections between affect, grit, happiness, and life satisfaction (Singh and Jha, 2008). Hypothesis 1 predicts that individuals pondering "Why me?" about their chronic illness will experience lower life satisfaction and higher negative affect. Hypothesis 2 suggests that higher negative affect in chronic disease patients will correlate negatively with life satisfaction, indicating reduced overall satisfaction.

Objective: This study examines the impact of the "Why me?" mentality on life satisfaction and negative affect in Inflammatory Bowel Disease (IBD) patients, investigating if existential questioning correlates with lower life satisfaction and increased negative affect.

Method: Data were gathered from a pre-existing sample of IBD patients at The University of Alberta (Purc-Stephenson, 2022), using validated scales including the Positive and Negative Affect Schedule (PANAS) and the Satisfaction with Life Scale (SWLS), alongside inquiries about "Why me?" A correlational analysis revealed a negative link between negative affect and life satisfaction.

Results: The study supported the hypotheses, indicating that individuals questioning "Why me?" reported lower life satisfaction ($p = 0.038$) and higher negative affect ($p < 0.001$), with negative affect negatively correlating with life satisfaction ($p < 0.001$).

Conclusion: This study underscores the psychological impact of the "Why me?" mentality on individuals with chronic illnesses like IBD. Understanding these relationships can inform interventions aimed at reducing psychological distress in this population.

P35 *The Effect of the Negative Workplace on Wellbeing*

Author(s): Kara Erickson & Michael Nizhnikov
Faculty Mentor: Prof. Christopher Budnick
Department: Psychology

Abstract: Proposal: The concept of wellbeing is explored through various theories and real-world experiences. The term is considered broad and interpreted based on varying organizational, societal, and individual perspectives. One may consider wellbeing as subjective, while others can view it objectively through measures such as physical or emotional health. Current literature indicates that a sustainable workplace is created through employment procedures and programs that balance work-life and the wellbeing of employees, allowing for more productivity (Kossek, et al., 2014). Other studies show employees refusing to discuss their well-being with superiors, fearing repercussions (Rasool et.al, 2021). The APA's 2023 Work in America Survey revealed that employees prioritize mental and emotional wellbeing when it comes to the workplace (The Harris Poll, APA, 2023). Other studies report that the psychological needs proposed in self-determination theory translate to the work environment (Manganelli et. al, 2018). The needs for relatedness, competence, and autonomy must be balanced for employees to see their work environment as healthy. This study examined the relationship between employee workplace wellbeing, workplace environment, and effectiveness of stress management programs. This study observed variables reported by employees that raise a concern about inadequate work conditions, such as lack of respect, job satisfaction, and amount of staffing. The variables were collected from the GSS Data Explorer from 2018 to 2020. A multiple linear regression will be used to determine the relationship between the variables. The data is currently undergoing examination and will be available at the time of the Undergraduate Research Conference.

P36 *Academic Motivation and Learning Strategies May Explain Students' Performance*

Author(s): Tyler Forbes
Faculty Mentor: Prof. Christopher Budnick
Department: Psychology

Abstract: Rationale: Individuals within their fields are constantly being judged based on performance. Even students as young as kindergarteners are being asked to perform. To understand a student's performance we can look at their motivation, and the strategies used to help them learn. Motivation is strongly correlated with an individual's performance. We used an archival dataset on motivation and learning strategies for undergraduate college students in South America to identify differences in motivation levels as a function of their year (freshman, sophomore, junior, senior), correlations between two types of motivation, as well as between types of motivation and learning strategies. Furthermore, we will examine if different learning strategies are used as a function of gender.

Method: We used a total of 347 participants. 283 of the participants were female, and 64 were males. 175 were freshmen, 79 were sophomores, 18 were juniors, and 75 were seniors. Participants were given the Cuestionario de Motivación y Estrategias de Aprendizaje (CEMEA). The CEMA is a 81 item survey, with a 7 point scale.

Results/conclusion: The analysis of this data set is currently ongoing. Data will be analyzed using an independent t-test for (H1) and (H4). The remaining hypotheses (H2) and (H3) will be using a correlation analysis.

P37 *Study of Lifestyle and Well-Being*

Author(s): Beatriz Rocha de Freitas
Faculty Mentor: Prof. Christopher Budnick
Department: Psychology

Abstract: The contemporary Western diet is characterized by the consumption of pre-packaged foods, refined grains, red meat, processed meat, high-sugar drinks, candy, sweets, fried foods, conventionally raised animal products, high-fat dairy products, and high-fructose items. Research has indicated that this dietary pattern can have adverse effects on mental health, contributing to poor cognitive function, obesity, and emotional disorders. This study seeks to provide a comprehensive understanding of the extent to which the increasing prevalence of mental health issues can positively change depending on poor dietary habits. This study follows a cross-sectional design with several survey questions regarding people's current diet and mental health state. The participants of the study will be anyone who can read and write english, are above 18 years old, and who volunteer to fill out the survey. Each person will answer the survey questions to the best of their abilities, and once enough responses are gathered, we will analyze the relation between their current diet and their current mental health state. The aim of this study is to investigate the relationship between individuals' current dietary habits and their impact on mental health.

P38 *Exploring Relationship Optimism: The Role of Need Frustration and Well-Being*

Author(s): Craig June & Michael Nizhnikov
Faculty Mentor: Prof. Christopher Budnick
Department: Psychology

Abstract: Previous research states that individuals high in relationship optimism experience higher relationship quality and individual wellbeing. Individuals high in relationship optimism are also more likely to experience higher need satisfaction. Furthermore, variables related to need satisfaction such as relationship quality and wellbeing correlate with higher relationship optimism. However, no research examines how need frustration impacts individuals' relationship optimism. Thus, our first hypothesis will test if need frustration will predict lower relationship optimism. There is also limited research discussing relationship optimism as a mediator for both motivations to date and relationship optimism with individual wellbeing. Hypotheses 2 and 3 examine whether relationship optimism mediates the relationships between motivations to date and relationship quality on individual wellbeing. We will use an online quasi-experimental design will be used for this study. Participants will be gathered through SONA and consist of undergraduate students in romantic relationships. Relationship type will be controlled by only examining monogamous heterosexual relationships. Heterosexual, monogamous relationships are the most common relationship type thus making participant recruitment easier. We predict need frustration will positively predict an individual's relationship optimism level (H1), and that relationship optimism will act as a mediator for relationship quality (H2) and motivations to date (H3) on individual wellbeing.

P39 *The Influence of Socioeconomic Status on Work Satisfaction and Job Security*
Author(s): Kelly Kalonji & Michael Nizhnikov
Faculty Mentor: Prof. Christopher Budnick
Department: Psychology
Abstract: This study explores the complex relationship between socioeconomic status (SES), work satisfaction, and job security, shedding light on the disparities and challenges faced by individuals from different socioeconomic backgrounds in the modern workforce. Previous research reported that low socioeconomic status for employees results in lower life (Gordimer & Dumludag, 2012) and job satisfaction (Pohilg et al., 2020), suggesting that individuals' well-being is significantly influenced by their socioeconomic standing. This study aims to look at these multifaceted dynamics and their implications for organizational practices aimed at fostering equitable and fulfilling work environments for all. Using data from the General Social Survey (GSS), the study examines the correlations between socioeconomic status, job security, and Job satisfaction. There is an ongoing process of analyzing the dataset. The data was cleaned and will be run through correlation analysis and ANOVA testing on the hypothesis. We expect the results will be finalized before the poster presentation.

P40 *Unraveling the Precrastination Puzzle: Exploring the Interplay of Executive Function and Academic Performance*
Author(s): Estela Baka
Faculty Mentor: Prof. Christopher Budnick
Department: Psychology
Abstract: Precrastination is defined as the tendency to complete a task as early as possible and is associated with a need to reduce cognitive load. Precrastination has been deemed the opposite of procrastination in recent literature, but the consequences of precrastination are unknown. Therefore, I seek to examine the relationship between precrastination, executive function, and academic performance with the prediction that precrastinators will score higher on (H1) executive function, (H2) inhibitory control, (H3) metacognitive regulation, and (H4) executive function will play a mediating role between precrastination and academic performance. This study will follow a quasi-experimental design with self-sorting groups of precrastinators and non-precrastinators. Each group will complete a task-ordering measure and a set of questions on procrastination, precrastination, executive function, metacognition, positive and negative affect, and demographic information. Data will be collected from college students (n = 260) throughout the 2024-2025 school year. Upon completion of data collection, the data will be cleaned and run through a set of independent means t-tests to ensure group equivalency. Hypotheses 1, 2, and 3 will also be tested through a series of independent means t-tests and are expected to be confirmed based on past research. Hypothesis 4 will be tested using the Hayes process macro. This study aims to further the research on precrastination by identifying the average academic performance of a precrastinator, as well as other defining characteristics, and beginning to assess a mediation model in relation to precrastination.

P41 *Exploring the Impact of Citizenship Status and Long Work Hours on Well-Being*
Author(s): Heather Rae Gaydowen, Ethan M. Coscia & Glen O. Diaz
Faculty Mentor: Prof. Christopher Budnick
Department: Psychology
Abstract: Rationale: Research has shown that longer work hours are associated with decreased job, financial, and life satisfaction, and time spent on family responsibilities. Many migrants move to America in search of better job opportunities. As a result of cultural differences, migrants face difficulties acclimating to their new environment. This directly results in worse work attitudes. Therefore, we focus on how U.S. citizenship may act as a moderator on the relationship between work hours, time spent on family responsibilities, job, financial, and life satisfaction.

Methods: This study used an archival dataset through the University of Chicago's General Social Survey (GSS). The GSS is a project of NORC at the University of Chicago, with principal funding from the National Science Foundation. We utilize the database's two most recent years, 2021 and 2022. The survey included (n=7577) total participants.

Results & Conclusion: The analysis of this dataset is still ongoing. The data was cleaned and will be run through various correlation tests for Hypotheses 1 and 3. Hypotheses 2 and 4 will be run through hierarchal linear regression analyses. We expect to have finalized all results analyses before the poster's presentation. The results of this study aim to extend the research on the effects of immigration on work and well-being.

P42 *A Longitudinal Analysis of Measures of Reading Skill in Elementary School Students*
Author(s): Avery Loomis & Sarah Masotta
Faculty Mentor: Prof. Dina Moore
Department: Psychology
Abstract: In this study, we will present longitudinal data examining the relationships among several measures of reading skill including letter naming, phonological processing, word recognition and decoding, oral and reading comprehension, and vocabulary in a small sample of children administered assessments in kindergarten, first, and fifth grade. The data presented are part of a larger study aimed at investigating the efficacy of a reading intervention called Dialogic Reading Intervention with Integrated Vocabulary Enrichment (DRIVE). This intervention was developed to assist struggling elementary school readers in a local Title 1 school. In this larger work, children are selected for the intervention based on a set of norm-referenced, brief measures and then post-tested after the intervention. Our sample consists of 21 current fifth graders with data from pre-testing in kindergarten, first, and fifth grade. Correlational analyses will be presented to examine relationships among the various reading skills over time, with a particular focus on the kindergarten skills that are correlated with comprehension and vocabulary measures in fifth grade. The results of these analyses will provide further insight into this particular sample of children. Additionally, identification of these early predictors of reading skill may help both the school and the researchers to target more effective interventions and identify any additional resources necessary to ensure reading success.

P43 *Fatally Attracted: A Revised Scale of Stalking Behaviors*
Author(s): Beracah Xiao, Maciel Valle & Jose Chavez
Faculty Mentor: Prof. Jessica A. Suckle-Nelson
Department: Psychology
Abstract: Many stalking behaviors have become even more normalized than they were 20 years ago due to the advent of social media and the internet. In conjunction with celebrity culture, the acceptability for these behaviors have changed and seem to depend on various factors of the stalkers and victims. Additionally, stalking behaviors are often inspired by romantic intentions. As a result, the line between stalking and romantic efforts has become blurred.

The basis of our questionnaire is the modified Fan Activities Scale (FAS), used in an SCSU honors thesis. The original FAS focused on stalking behaviors towards celebrities, though the thesis used it to evaluate both celebrities and acquaintances. Though it offered a comprehensive overview of stalking behaviors, the measure was comprised of nearly 60 questions given in an increasingly-aggressive order. Thus, there are some challenges to the measure's usability.

The main goal of this project was to create a streamlined version of a stalking behaviors acceptance scale that could be used for either celebrity or non-celebrity samples. In addition, we wanted to make the questionnaire shorter and to group questions by intent rather than ordered by severity.

During this process we had to consider several perspectives on stalking and its confluence with romance. The results of our efforts have created a new scale on behavior acceptance that may be more versatile than the original. This new scale is comprised of approximately 45 questions over six categories.

P44 *Cellphone Addiction, Affect Intensity, and Satisfaction with Life*
Author(s): Viktoria Biblekaj, Brendan Estacio, Antonio Gonzales, Malori Shortell, Ashley Harris & Patrick Burden
Faculty Mentor: Prof. Patricia Kahlbaugh
Department: Psychology
Abstract: Cell phones have become vital to individual's daily lives, which has encouraged problematic use. Problematic use may result in nomophobia, the fear of being deprived of access to a mobile device, and cell phone addiction. The current study investigates cellphone addiction or nomophobia, with respect to affect intensity in general, the strength of emotional reactions to internet images, and life satisfaction. Fifty-two participants were administered a measure of Affect Intensity (AIM short form, Geuens & De Pelsmacker, 2002), a positive internet image, and a measure of life satisfaction (Diener et al., 1985). We found that nomophobia was related to greater negative affect intensity, less happiness evoked by positive internet images, and lower life satisfaction. Our findings suggest that those who are addicted to their cellphones experience more intense negative affect in general and are less likely to enjoy the positive images they see on the internet – suggesting that their addiction does not result in greater positive feelings. Supporting this, we found that nomophobia was related to lower life satisfaction overall. The research supports a body of work suggesting emotional discontent among those who are excessively attached to their cellphones. Future research should include objective measures of cellphone use such as reports of daily average screen time and descriptions of primary usage to aid in the design of interventions aimed at reducing cellphone use.

P45 *The Emotional Profile of Cellphone Addiction: The Case of Nomophobia*
Author(s): Viktoria Biblekaj & Renee Robles
Faculty Mentor: Prof. Patricia Kahlbaugh
Department: Psychology
Abstract: Cell phones have become integrated into society and provide connectivity. Excessive use may lead to cell phone addiction or nomophobia, the fear of being without a cellphone. The emotional complexity of cellphone use is characterized by both positive and negative emotions. Individuals may seek out relief through their device but in turn, may experience more negative emotions. The current study investigates the complex emotional profile of nomophobia and attachment-related anxiety as a predictor of nomophobia. Participants (n=102) completed the NMP-Q assessing nomophobia, the ECR-R assessing attachment styles (secure, anxious, and avoidant), an emotion scale assessing positive and negative affect states experienced in general (GEN) and while using a cellphone (CP). Participants reported more negative emotions and less positive emotions when using their cell phones compared to emotions experienced more generally in daily life. In addition, those with attachment related anxiety displayed higher levels of nomophobia, which suggests that attachment issues are implicated in cellphone addiction, perhaps because cellphones create the illusion that attachment figures are always available. In addition, the relationship between cell phone addiction and attachment-related anxiety is mediated by the extent to which cell phone use provides security, independent of feeling secure in general. Our findings suggest that nomophobia is sustained by complex emotions. An individual who feels negative emotions turns to their cellphone for comfort, however, the cell phone elicits more negative emotions. Future research should include a screen time diet, where users are limited in their exposure to highly preferred cell phone applications and internet sites.

P46 *The Role of Self-affirmation in Reducing Imposter Phenomenon (IP) in First-Generation College Students*
Author(s): Viktoria Biblekaj
Faculty Mentor: Prof. Patricia Kahlbaugh
Department: Psychology
Abstract: Imposter Phenomenon (IP) is a psychological occurrence characterized by self-doubt, feelings of fraudulence, and the persistent fear of being perceived as phony. In situations of high achievement, those with IP attribute success to external sources. Self-conscious emotions, such as shame, are related to IP. Constant exposure to the imposter cycle may lead to mental health issues as those with IP are in a chronic state of identity threat. Previous studies have utilized self-affirmation manipulations to restore the self-concept. This type of intervention can potentially interrupt the identity threat in IP. The current study is an experimental design (n=120) that investigates the IP profile for first generation students (FGS) with respect to arousal, shame, and the effect of a self-affirmation procedure on symptoms of IP (anxiety, self-doubt, shame) and reports of IP during a threat inducing situation. The design is a x 2(threat vs. comfort) x 2(SA values vs SA control) x 2(FGS vs NFGS) on IP, shame, and arousal. Participants will be randomly assigned to either the self-affirmation (SA) essay or the SA control, and randomly assigned to either the mild threat or comfort condition. Participants will also complete the CIPS assessing imposter phenomenon, the EISS assessing external and internal shame, and the FAS assessing arousal. Potential findings include higher levels of IP in the SA control group than the SA values group in addition to lower IP in FGS who are self-affirmed in comparison to FGS who are not self-affirmed. Future research should explore other self-affirmation interventions for IP.

P47 *Envisioning One's Best Self: Differential Effects of Self-Affirmation Based on Ethnic Identification*
Author(s): Malori Shortell, Stephanie Acosta Colon, Ashley Harris, Antonio Gonzales & Patrick Burden
Faculty Mentor: Prof. Patricia Kahlbaugh
Department: Psychology
Abstract: Autobiographical memories are a special type of episodic memory constructed out of unique personal memories, cultural values, and life narratives, which define a personal identity (Fivush et al., 2011; McAdams, 1992). Personal narratives reveal met and unmet needs, and in an iterative process of reflecting on autobiographical memories, the individual understands themselves by evaluating their experiences with respect to their community and culture. Values and needs based on past experiences and goals for the future form a vision of the Best Self (Kahlbaugh et al., 2024). The current study analyzes the effects of self-affirmation (SA) and ethnic identity on linguistic components of drive and achievement in Best Self narratives. Because self-affirmation interventions restore self-integrity and have been shown to improve the academic performance of minorities, we predict that for Latino and Black students, self-affirmation will result in greater drive and achievement in Best Self narratives compared to white students. Participants (n=133) were asked to write about an important value (SA) or about a value important to others but not to them (Control) and then write about when they have been or will be their Best Self. We found that compared to white students, self-affirmation did increase drive and achievement themes in Best Self narratives of Latinos; however, affirming values important to someone else (Control) increased the drive and achievement in White and

Black students. Further work should examine why writing about values important to someone else promotes more drive and achievement in the Best Self narratives of Whites and Blacks.

P48 *The Associations Between Interpersonal Relationships and Life Satisfaction Among Male Gamers*
Author(s): Ariana Arroyo-Johnson, Bella F. Cassin, Giovanna A. Mouzouras & Elsinai Xichtencatl
Faculty Mentor: Prof. Katherine Marsland
Department: Psychology
Abstract: The study examines the relationship between interpersonal ties and life happiness among male gamers aged 18 to 26. Using the subjective well-being (SWB) paradigm, the study investigates whether digital connections within online gaming communities produce levels of fulfillment and life satisfaction comparable to traditional, in-person interactions. The study employed a snowball sampling technique, with participants recruited using Google Forms surveys distributed to friends and family members. The Diener et al. (1985) Satisfaction With Life Scale and the modified Grieve et al. (2013) Facebook Connectedness Scale was used to assess gaming and in-person connections. Statistical tools, such as Pearson correlation coefficients, study the relationships between life satisfaction, gaming connections, and in-person contacts. Significantly, the study's hypothesis predicts that in-person relationships would have a stronger correlation with life happiness than gaming connections among young male gamers. The findings reveal a positive association between life satisfaction and in-person and gaming connections, while statistical significance is not achieved due to the small sample size of 11 males. Limitations include a lack of demographic diversity and a small sample size; thus, act cautiously when interpreting the findings. Despite several limitations, the study gives exciting insights into the complex interplay between social bonds and life happiness among young male gamers, emphasizing the need for more research with more extensive and diverse populations.

P49 *Flourishing and Self Esteem Levels May Depend upon Time on Screen*
Author(s): Jonah Santiana, Mark Jones, Neesha Melendez & Nadia Zawoy
Faculty Mentor: Prof. Katherine Marsland
Department: Psychology
Abstract: Emerging research indicates that social media may negatively impact people's overall subjective well-being and self-esteem, particularly among adolescents and young adults. We hypothesized that the number of hours people spend on social media per week would be negatively correlated with both the flourishing dimension of subjective well being and self esteem. Participants were recruited through convenience and snowball sampling by students in a psychology research methods course. Participants completed an online survey via Google Forms. Flourishing was measured using the Flourishing Scale (Diener et al., 2010). Self Esteem was measured using the Rosenberg Self-Esteem Scale (Rosenberg, 1965). Social media use was measured by asking participants to self-report the number of hours per week they spent on an social media platforms. We found that social media use was not significantly associated with self-esteem. However, as predicted, social media use was negatively correlated with flourishing. More research is necessary potentially using longitudinal designs that follow people's social media use, self esteem and subjective well being in order to better understand the direction of effects and other variables that may also contribute to flourishing and overall subjective well being.
Keywords: subjective well-being, flourishing, self esteem, social media

P50 *Impact of First Trimester Maternal Marijuana Use on Brain Development and Behavior in Rats*
Author(s): Ivan Teplyakov, Ethan Boehm, Rijad Brkic, Jayci Jordan, Felicity Keyworth, Don'yae Martin & Abigail Nolan
Faculty Mentor: Prof. Rachel Jeffrey & Prof. Bordner
Department: Biology & Psychology; Behavioral Neuroscience
Abstract: Maternal rates of marijuana use, especially during the first trimester, are on the rise, yet we know little to nothing about the long-term consequences of brief marijuana exposure during the earliest days of gestation. Recent changes in federal regulations leading to the decriminalization of marijuana possession, coupled with the growing potency of the drug and rising use signal that we are at the cusp of an emerging public health crisis. Our lab is using a rodent model to examine effects of early marijuana exposure on brain and behavior in developing animals. Pregnant rats were administered delta-9-tetrahydrocannabinol, the main psychoactive cannabinoid found in marijuana, during the first 5 days of pregnancy or the last. Offspring were later tested for changes in communication, anxiety-like behavior and social interaction. Our results suggest that prenatal marijuana exposure, even during the earliest days of pregnancy, may have subtle, yet long-lasting effects on behavior. Work examining the influence of this manipulation on brain are ongoing. It is our hope that these results will better inform healthcare workers and pregnant women about the potential short- and long-term consequences of prenatal marijuana use.

P51 *Internship Bathroom Survey*
Author(s): Jenny Malcein
Faculty Mentor: Prof. Amy Smoyer
Department: Social Work
Abstract: All human beings use bathrooms on a regular basis. However, research indicates that there is limited access to public toilets in the U.S. There are few public facilities and those that exist may have limited hours and/or be controlled by gatekeepers. Young people, people of color, and unhoused people can face discrimination and exclusion when trying to access bathrooms in private businesses and may hesitate to use facilities in public buildings that are monitored by police or security guards. Access, or lack thereof, to toilets is an important social justice issue that impacts people's ability to engage in public life.

The project expands upon existing toilet research by building knowledge about client and staff access to toilets in social service agencies. A team of SCSU undergraduate researchers created a confidential online survey, using Qualtrics, that was administered to 45 senior social work majors currently placed as interns at social service agencies around Connecticut. The 10-minute survey used open- and close-ended questions to collect data about toilet access at their internship placement and policies related to staff and client use of these facilities.

All data was analyzed by the undergraduate team, in collaboration with a faculty supervisor. Preliminary findings describe differential bathroom access for staff and clients in these agency settings, the prevalence of gender-neutral facilities, and the ways in which facilities varied by agency. The project invites social service agencies to create toilet policies that align with the profession's Code of Ethics and commitment to the dignity of all people

P52 *The Impact of Criminal-Legal Systems on Undergraduate Students: A Campus Survey*
Author(s): Shoshana Mahon & Mellody Massaquoi
Faculty Mentor: Prof. Amy Smoyer
Department: Social Work
Abstract: There are 1.8 million people incarcerated in the US and 4 million under community supervision. This carceral policy has a huge impact on society. However, community organizing in response to criminal-legal policies is muted. To better understand and address this phenomenon, this study assessed criminal-legal impact and interest in organizing among SCSU undergraduates.

Convenience sampling was used to recruit participants: 400 flyers were distributed. Eligibility criteria were: over 18 and undergraduate. The online survey asked participants if they or their friends or family were ever incarcerated or supervised on probation, how criminal-legal systems have affected their lives, and if they are interested in organizing criminal-legal reforms.

195 people completed the survey. More than half (57%) of the participants had been impacted by criminal-legal systems. Crosstab analyses by race found that students of color were more likely to be impacted by criminal-legal systems (62%) than white students (54%). Participants described negative experiences with the police and justice systems. Few participants (6%) expressed interest in joining organizing efforts.

This research project found that our campus is deeply impacted by criminal-legal systems. There was little interest in organizing. Stigmas associated with criminal-legal systems may make people hesitant to align themselves with this issue. The socio-economic systems that requires students to balance school with work and caregiving responsibilities limits the time and energy available for policy change. Students may not have skills or experience with community organizing. Social work programs can provide the support and training needed to promote campus organizing.

P53 *The Impact of Public Showers on Unhoused People's Psychosocial Wellness*
Author(s): Samanta Morrison
Faculty Mentor: Prof. Amy Smoyer
Department: Social Work
Abstract: Public showers are not readily available to unhoused people and this leaves a gap in the services available for unhoused people. This research seeks to evaluate a public shower program in New Haven Connecticut called "Power in a Shower." Power in Shower is a portable shower truck that provides shower services to unhoused people in New Haven Connecticut.

The methods of the research project consisted of mixed methods. The study utilized convenience sampling, anyone waiting in line to use the shower service was asked if they wanted to do a survey. The survey was administered on pen on paper and took 5-10 minutes. There were 58 staff administered survey completed in total. There were 20 qualitative interviews conducted. The staff from "Power in a Shower" referred key informants, who used the shower service on a regular basis to do the qualitative interviews.

The results that emerged from this study revealed that there are hardly any public shower options in the area. Of the two public showers available in the area, one has been broken for months, the other shower is dirty and thus is not utilized by the participants of the study. When participants rated their overall satisfaction with the shower service, something that came up was how clean the showers were. Clean showers and the friendly staff encouraged people to keep coming back to use the service. Other results that surfaced during the study revealed that the shower service provided peace, improved mood, and a humanity aspect.

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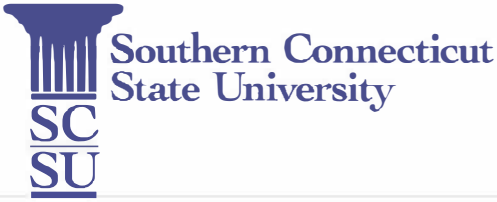
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