



Grambling State University

Undergraduate Research Symposium

Tuesday, February 28, 2023

9:00 a.m. – 2:00 p.m.



*Featuring: Undergraduate Student Researchers from Various Disciplines
Grambling State University's Visual and Performing Arts Department
Grambling State University's Music Department*

**Favrot Student Union
(Classroom# 234, 242, 243)**

**Dr. Jacqueline Garrison, Associate Dean, School of Social Work
Chair- 2023 Undergraduate Research Symposium**

**Dr. Rory L. Bedford, Dir. of Continuing Education and Service Learning
Co-Chair- 2023 Undergraduate Research Symposium**

Dr. Connie Walton Provost & Vice President for Academic Affairs

Richard "Rick" Gallot, President

Grambling State University Undergraduate Research Symposium Schedule

Check-in: Ms. Mackisha Brumant & Ms. Andra Richards

8:30 a.m. – 9:30 a.m. Registration/Check-In and Light Breakfast (Black & Gold Room)

9:30 a.m. – 11:30 a.m. Concurrent Session I, II, & III– Oral Presentations (Classroom Nos. 234, 242 & 243)

9:30 a.m. - 9:45 a.m. 1st Presenter(s)

9:45 a.m. - 10:00 a.m. 2nd Presenter(s)

10:00 a.m. - 10:15 a.m. 3rd Presenter(s)

10:15 a.m. - 10:30 a.m. 4th Presenter(s)

10:30 a.m. - 10:45 a.m. 5th Presenter(s)

10:45 a.m. - 11:00 a.m. 6th Presenter(s)

11:00 a.m. - 11:15 a.m. 7th Presenter(s)

11:45 a.m. – 12:30 p.m. Performing Arts Presentations (Black & Gold room)

12:30 p.m. – 1:30 p.m. Art Exhibition and Poster Presentations (Favrot Student Union Atrium Area)

2023 UNDERGRADUATE RESEARCH SYMPOSIUM SCHEDULE - February 28, 2023

9:30 a.m.-11:30 a.m. Concurrent Session I -Oral Presentations		
Moderators: Stefon Jackson, Chatian Banks		
Evaluators: Dr. Nair Gopalakrishnan, Dr. Baker Al Smadi, Ms. Jakeithia Prejean		
Room 234	Presenter(s)	Presentation(s)
	Shiloh Williams	Better Health: The Medical Leap Forward
	Nicolas Hornsby	Automatic Spectroscopic Data Collection via LabVIEW Coding
	James Thaddisha	Metagenomic Analysis of Water and Soil in Grambling, LA
	Thyme Turner and Melanie Crayton	Cardiovascular Disease
	Ke-Sean Peter	Properties of Colloidal Nanoparticles Synthesized by Laser Ablation in Liquid
	Adrianna Pratt	Degradation of Optical Spectra from InP-ZnS Quantum Dots
	Marion Coleman, Ajade Brinson, Jacob Lewis	The Great Lunar Expedition for Everyone (GLEE) at GSU

9:30a.m. – 11:30 a.m. Concurrent Session II- Oral Presentations

Moderators: Joseph Papillion, Devon Malone, ShaBrittany Rose

Evaluators: Dr. Suzanne Mayo, Mr. Terry Matthews, Ms. Emma Kent

Room 242	Presenter(s)	Title
	Nia Hatfield	Do's and Don'ts of Social Media Use
	Alexandria Brown Lalia Brown Makayla Kimble Elijah Neal Braxton Rundell	The Impact of Police Misconduct on HBCU student's Perceptions and Confidence in the Justice System
	Ndumiso Shongwe	Impact of Twitter, TikTok, and Instagram on Teenagers' Self-Esteem and Mental Health
	Jhada Carmel	A Smarter Solution for Preventing Theft at the Stores Self-Checkout Kiosks
	Diamond Cook Dymond Wilson	Does My Skin Threaten you? Effect of Skin Tone on Incarceration Outcomes
	Nichelle Brown	Is Social Media Addictive?
	Blake Hill	Women's Basketball Players vs Men's Basketball Players

9:30 a.m.-11:30 a.m. Concurrent Session III-Oral Presentations

Moderators: Dionne Preaster, Jaderic Talbert

Evaluators: Dr. Kashley Brown, Dr. Johnathan Tall, Mr. Marcus Davis

Room 243	Presenter(s)	Title
	Caitlyn Smith	The Images of Violence Depicted on Twitter have Desensitized Generation Z
	Shellyann Dejean	The Difference Between P.W.I (Predominantly White Institutions) and HBCU'S(Historically Black Colleges and Universities
	Taye Abraham	The influence of social media on behavior
	Sonelle Casimir	The Black Lives Matter Movement
	Ntuli Lungile	ChatGPT: How the AI Tools is Challenging the Way Students Communicate
	Madison Agnew Elijah Neal	Possible Penalties Unnoticed? Impact of Skin Tone on Neighborhood Outcomes
	Melcah N. Pea	Bring Human Awareness to the Community

11:45 a.m.-12:30 p.m.- Musical & Dramatic Performance- Black and Gold Room

Moderators: Kianna Willis, Imani Kakoma

Evaluators: Dr. Audrey Kim, Dr. Tazinski Lee, Dr. Sharonda Hatter

Black and Gold Room	Presenter(s)	Title
	Marvin Moore	“Gains”
	Ephinite Hardy Moeneisha McMiller	Puppetry Skills and Designs
	Destiny Berry	“Dollhouse Falling”
	Jurnee Dilworth	“That Night”

Viewing 9:00 a.m. – 2:00 p.m. -Art Exhibition-Atrium

******The students will be present be discuss their work from 12:30 p.m. -1:30 p.m.**

Evaluator: Dr. Stephanie Bundle, Mr. Marcus Davis, Mr. Terry Matthews

Atrium	Presenter(s)	Title
	Tiara Dorsey	Back of my Mind
	ShaMar White	BMF
	ShaMar White	Strive for Greatness
	ShaMar White	GRBT (Great)
	ShaMar White	Mar the Great
	ShaMar White	4PF
	ShaMar White	6 Life is Perspective
	Itzel Hernandez	The Persistence of Notion

Viewing: 9 a.m.-2 p.m.-Poster Presentation-Atrium

******The students will be present to discuss their work from 12:30 pm-1:30 pm**

Evaluators: Dr. Cheri Holbrook, Dr. Ora Rice

Atrium	Presenter(s)	Title
	Shamara TeleMacque	Gateways to Cancer: Pentachlorophenol Orchestration of Inflammatory Protein in TIB-73 Mouse Liver Cells
	Cazembe Zubari	Construction of a National Language Processing Model Using Neural Networks
	Trinity Dulaney Myria Pope Brenda Coakley	A Historical Review of the Evolution of Choral Music at Grambling State University
	Ajadan Brinson	Electronic Stethoscope
	Austin Bristo	Plastic Among the Plankton: Plastic Ingestion by Planktivorous Seabirds

Oral Presentations- Concurrent Session I

Favrot Student Union Classroom 234

Evaluators: Dr. Nair Gopalakrishnan, Dr. Baker Al Smadi, Ms. Jakeithia Prejean

Moderator: Stefon Jackson, Chatian Banks

Student: Shiloh Williams

Faculty Mentor: Dr. Prasanthi Sreekumari

Title: Better Health: The Medical Leap Forward

The study of computational biology uses various aspects of statistics, machine learning, and big data practices to store copious amounts of medical data. The amalgamation of these processes allows medical professionals to leverage the most advanced and most practical treatments for patients afflicted with a wide array of illnesses, for example, the electrocardiogram (EKG) machine can be used to detect problems pertaining to the heart, such as bradycardia or tachycardia or a heart murmur. What this algorithm will accomplish is a minimally invasive system that can predict the first signs of an illness via stored user data. This system works by capturing visual changes in the user such as pale skin, swollen faces, droopy eyelids, and looking tired. These acute changes may be used to categorize the illness afflicting the user. The algorithm deals with the storing of biomedical information to accurately predict the course of an illness, and the development of an illness. The algorithm functions by using machine learning and cloud storage to compile various pictures of different stages of an illness, and comparing the user to the stored data set to predict if the user is afflicted by a specific ailment.

Student: Nicolas Hornsby

Faculty Mentor: Dr. Haeyeon Yang

Title: Automatic Spectroscopic Data Collection via LabVIEW Coding

Automatic data collection is vital for today's cutting-edge research. We have successfully developed and implemented LabVIEW based coding to operate the spectrometer, Lock-In amplifier, and the amplifier. Our LabVIEW VI produces a graph of spectra in real time so that the intensity of detected light over the changed wavelength can be obtained automatically when the parameters are typed into the program. Spectra from quantum dots have been routinely obtained from the VI. Furthermore, additional coding to operate another spectrometer from another company is in progress. This project is funded by NASA LaSPACE, the NSF PREM program and NSF-CIMM seed grants.

Student: Thaddisha James

Faculty Mentors: Dr. Paul Kim and Dr. Audrey Kim

Title: Metagenomic Analysis of Water and Soil in Grambling Louisiana.

Metagenomics refers to the sequencing of genetic material from environmental sources. This metagenomic analysis of water and sediment from the Grambling Pond, wastewater from Grambling State University (GSU) and the city of Grambling sewer sheds will deepen our understanding of the local biodiversity, and uncover any antibiotic-resistance genes that are present. We hypothesized that the profiles of

microorganisms detected in these varied contexts would be different based on our prior knowledge of microbial ecology. Water and sediment samples from the Grambling City Park Pond and wastewater samples from GSU and Grambling City were collected. DNA was extracted using the ZymoBIOMICS DNA Miniprep Kit or the DNeasy PowerLyzer Power Soil Kit. DNA quality was assessed by UV spectroscopy and DNA concentration was measured using a Qubit assay. Libraries for sequencing were prepared using the Oxford Nanopore Rapid Barcoding Kit. EPI2ME What's in My Pot bioinformatics evaluated 867,885 reads. Bacteria comprised 94% of readings, Eukaryota 5%, and Archaea/viruses <1%. *Escherichia coli* (111,351 reads), *Homo sapiens* (17,189), *Cloacibacterium normanense* (17,128), *Sphaerotilus natans* (6,700), and *E. marmotae* (4,851) were the most abundant species. Most enteric bacteria were identified in the wastewater. EPI2ME Antimicrobial Resistance aligned 1,344 genes to 185 in the Comprehensive Antibiotic Resistance Database. In future studies, antibiotic resistance and public health will be examined.

Students: Thyme Turner, Crayton Melanie

Faculty Mentor: Dr. Suzanne Mayo

Title: Cardiovascular Disease

What is cardiovascular disease and whom does it affect? Cardiovascular disease is another name for heart disease. Heart disease relates to several types of heart conditions. The most common is coronary artery disease (CAD). Eating a diet that is high in saturated fats, trans fats, and, cholesterol has a correlation to an increase in the risk of developing heart disease. Heart disease is the number one cause of death in the United States. Heart attacks and other heart conditions can occur at any age. Recent studies have shown that college students are at a higher risk for heart disease, especially males due to certain lifestyle choices such as the use of cannabis and tobacco.

Student: Peter Ke-Sean

Faculty Mentor: Dr. Haeyeon Yang

Title: Properties of Colloidal Nanoparticles Synthesized by Laser Ablation in Liquid

Properties of colloidal nanoparticles synthesized by laser ablation in liquid (NPs) are typically synthesized by a chemical method which often requires expertise and heavy use of toxic and hazardous chemicals. This sometimes becomes expensive due to the cost related to chemical hazards and expertise. Laser ablation in liquid (LAL) is a relatively new method to synthesize NPs. We have successfully synthesized colloidal nanoparticles by the LAL method including carbon and metals. We discuss the properties of the carbon NPs that depend on laser intensity, the thickness of liquid layers, liquid temperature, and the kind of liquids. This project is funded by NASA LaSPACE, NASA Marshall Space Flight Center, the NSF PREM program, and NSF-CIMM seed grants.

Student: Pratt Adrianna

Faculty Mentor: Dr. Haeyeon Yang

Title: Degradation of Optical Spectra From InP-ZnS Quantum Dots

Quantum dots (QDs) are ubiquitous. They can be found in almost all aspects of our life, ranging from TV displays and energy conversion devices such as QD TV and solar cells, to biological applications such as research on imaging stem cells and cancer cells. Compared to the well-known, conventional CdSe QDs, the

synthesis of InP/ZnS QDs are mainly driven by the need of QDs of less toxic, environmentally friendly, and benign to human body. They have been welcomed in many applications including bio-medical applications. In this presentation, we discuss the fundamental aspects of InP/ZnS QDs such as QD size, electronic properties of QD and their impacts on fluorescence, structural properties such as core, shell, and ligands on the QDs. The degradation of the optical spectra from InP/ZnS QDs over temperature and exposure UV light will be discussed. This project is funded by NASA LaSPACE, NASA Marshall Space Flight Center, NSF PREM program and NSF-CIMM seed grants

Students: Marion Coleman, Ajade Brinson, Jacob Lewis

Faculty Mentors: Abdul Khaliq and Lane Elien

Title: The Great Lunar Expedition for Everyone (GLEE) at GSU

The Great Lunar Expedition for Everyone (GLEE) is a program supported by NASA which aims to be a catalyst for producing a new generation of space missions and explorers. Inspired by NASA's Apollo Moon landings, this scientific and technological mission to the moon provides a unique opportunity for students to engage in payload development lunar research. Our GLEE team at GSU completed training on circuit design, schematic drawings, sensor interfacing, and programming. Our team then programmed the Atmega328p-based LunaSat boards to test and calibrate temperature sensors, magnetometers, solar panels, pressure sensors, accelerometers, and capacitive sensors. A program was also completed to correctly log the sensor data to memory. The radio frequency communication modules on the boards were also tested for communication of data and for localization based on signal strength. Based on the success of the sensor calibrations and checks which were done by the team, the boards are now ready to be prepared for launch. The next step in the GLEE 2023 work will be to gather data from our LunaSats after they have been launched on the moon. After launching, the LunaSats will be able to collect temperature, magnetic field, and inertial measurements on the harsh environment of the lunar surface for two lunar days, or approximately 56 Earth days.

Oral Presentations- Concurrent Session II

Favrot Student Union Classroom 242

Evaluators: Dr. Suzanne Mayo, Mr. Terry Matthews, Ms. Emma Kent

Moderator: Joseph Papillion, Devon Malone

Student: Hatfield Nia

Faculty Mentors: Dr. Steve A. Favors and Dr. Ellen D. Smiley

Title: Do's and Don'ts of Social Media Use

This PowerPoint presentation consists of the Do's and Don'ts of social media use. The PowerPoint introduces the ideas and train of thought for any type of social media platform. Social media introduces us to a whole new frame of living. As social media expands, it is important to be familiar with the proper ways to use it as it displays whom we are portrayed to be. My motivation for presenting this information is to actively achieve proper communication through social media and how to make it work for individuals in the best way possible. As a professional or person who is seen in a professional light, my research will

present ways to be seen the way you want to be seen while doing it as acceptable to social media etiquette. My results communicate a more productive social media environment as well as social media etiquette.

Students: Alexandria Brown, Lalia Brown, Makayla Kimble, Elijah Neal, Braxton Rundell

Faculty Mentor: Dr. Quentin D. Holmes, Sr.

Title: The Impact of Police Misconduct on HBCU students' Perceptions and Confidence in the Justice System

The Criminal Justice system in general, and law enforcement specifically, has been subjected to extreme pressure demanding reform because of several, high profile white police officer misconduct cases with Black citizens. This research project intends to analyze the functions of the Criminal Justice system as an institutional sub-cultural problem - rather than simply a black/white problem - by focusing on several areas. This research will explore the media's impact on the public's perceptions of police behavior, analyze incidents resulting in death due to police actions and discuss contributing factors as it pertains to agency and officer legitimacy, among others.

Student: Shongwe Ndimiso

Faculty Mentor: Dr. John Arnold

Title: Impact of Twitter, TikTok and Instagram on Teenagers' Self-Esteem and Mental Health

The three main social media platforms (Twitter, TikTok and Instagram) may be responsible for lowered self-esteem and increased depression among female users between the ages of 12 and 19. This content analysis study examines and summarizes how the three biggest social media platforms have a psychological effect on this bracket of users. A minimum of six papers will be consulted and analyzed. The papers are to be sourced from Google Scholar and ProQuest. Findings will be categorized into two psychological impacts: one will be self-esteem and the other will be depression.

Students: Jhada Carmel

Faculty Mentor: Dr. Prasanthi Sreekumari

Title: A Smart Solution Using AI Technique for Preventing Theft at the Stores Self-Check

Self-checkout kiosks are common at many retail stores. It's becoming an important part of many different businesses due to the benefits such as low overhead costs, increase revenue and productivity, better use of space, social distancing and enhance customer experience. For customers, it is a great alternative option for expediting their checkout process other than paying at a standard checkout lane. However, over the years, stores' self-checkout stations have been the key to making shoplifting easy. The number of shoplifters has dramatically grown hundreds of fraudsters at different shops commit theft crimes by scanning one pricey product with the label of another with a much lower price on the self-checkout system. They avoid being identified in this manner since, in principle, they are making a transaction like any other consumer. However, a series of robberies in the stores have expanded across the United States, putting the chain's status in jeopardy. In this project, we introduce a new method using Artificial Intelligence (AI) technique for preventing shoplifting using the tactic "Switcheroo" at the store's self-checkout stations.

Students: Diamond Cook, Dymond Wilson

Faculty Mentor: Dr. Karletta White

Title: Does My Skin Threaten You? Effect of Skin Tone on Incarceration Outcomes

Research shows exposure to discrimination for darker skinned Blacks significantly affects the social and psychological well-being of adolescents, but the link between these effects and the continued exposure to discrimination experienced by darker-skinned Blacks later in the life course has rarely been examined. This study aims to fill that gap by exploring the relationship between skin tone and criminal justice outcomes, in particular, the likelihood of ever being incarcerated, age at first incarceration, and the amount of time spent in prison over one's life course.

Student: Nichelle Brown

Faculty Mentors: Dr. Steve A. Favors and Dr. Ellen D. Smiley

Title: Is Social Media Addictive?

This research project is to analyze whether one can experience addiction from the daily use of social media. This project will look at how one's mental health is impacted by time consumption and dedicated usage of social media. Social media is a part of our daily routine, and how we connect with close friends and family. However, there are some dark sides to social media such as the exposure to many opinions around the world, fake news, and much more. Social media is not always used in a positive light and is highly monitored by those in higher-up positions. Today's world depends on social media for news, and entertainment, as today's modern newspaper. However, one may get addicted to the amount of attention or even likes one may receive on social media accounts. This quantitative research study consisted of 50 participants, all undergraduate students at Grambling State University. The survey consisted of questions based on addiction to social media and phone usage. The results suggested that social media addiction was real and had a negative impact on the participant's engagement with the outside world. With the high usage of social media, one may experience different feelings such as feeling like one has to prove themselves to people or fit into a certain criterion. Social media has created this hidden stigma that many do not see, but, is used by the developers and creators to keep us on their social sites before realizing what damage has been done.

Student: Blake Hill

Faculty Mentor: Dr. John Arnold

Title: Women's Basketball Players vs Men's Basketball Players

In this research paper, I will be studying the actuality that women's basketball teams don't receive the same opportunities as men's Basketball. I plan on conducting a literature review on the different opportunities that women basketball players get compared to men. I will watch a variety of sports broadcasts and blogs relating to women's and men's basketball and document the results.

Oral Presentations-Concurrent Session III

Favrot Student Union Classroom 243

Evaluators: Dr. Kasley Brown, Dr. Jonathan Tall, Mr. Marcus Davis

Moderators: Dionne Preaster, Jaderic Talbert

Students: Caitlyn Smith

Faculty Mentor: Dr. John Arnold

Title: The Images of Violence Depicted on Twitter has Desensitized Generation Z.

This study is to show how violence on Twitter is responsible for the desensitization of Millennials and Generation Z. I will prove this by showing the statistics of violence displayed to a younger audience. Graphic images have surfaced on Twitter without warning of detrimental effects. I have measured the exposure to violence shown on certain social apps. Most of the content is revealed to the younger generation. Technology has evolved over the years where its easy to access these images. This research will measure the action that is following the exposure.

Student: Shellyann Dejean

Faculty Mentor: Dr. John Arnold

Title: The difference between P.W. I'S (Predominantly white institutions) and HBCU'S (Historically black colleges and Universities.

Over the years PWI'S have been perceived to be better in comparison to HBCUs. In this paper, we will use various strategies and research methods such as surveys to tests this theory. Surveys will be conducted at a PWI and HBCU located in close proximity. We will analyze the social media presence, and compare enrollment/ dropout rates, programs offered, alumni involvement, campus presence/activities ,and building/campus facilities at both institutions. The findings will be evaluated, and compared to come to a reasonable conclusion.

Student: Taye Abraham

Faculty Mentors: Dr. Steve A. Favors and Dr. Rory L. Bedford

Title: The Influence of Social Media on Behavior

Social media is causing behavior modifications with the use of operant conditioning. In operant conditioning, stimuli are used to change behavior through reinforcement or punishment. Social media has a dramatic effect on human behavior and socialization, as shown in this PowerPoint presentation. The research surrounding this topic is within the fields of Psychology and Sociology is new.

Student: Sonelle Casimir

Faculty Mentors: Dr. Steve A. Favors and Dr. Ellen D. Smiley

Title: The Black Lives Matter Movement

The Black Lives Matter Movement was founded as a reaction to these horrible murders of black people in order to bring attention to the value of Black lives and to make it more widely accepted. The purpose of this research is to act as a political and ideological intervention in a culture that routinely and intentionally takes the lives of people of African descent. Because of the color of their skin and a host of other innate characteristics, Black people in the United States have long been the target of inhumane acts and stereotypes. African Americans have also been subjected to centuries of enslavement and tyranny. Even after the institution of slavery was abolished, persons of African descent continued to be subjected to racism and discrimination on the basis of the color of their skin. Racism of the colorblind variety, which is a more covert form of racism, has made its way into many facets of life in the United States, including the legal system. The All Lives Matter reaction is a product of the colorblind culture that is prevalent in today's society. This culture is used as a tactic to silence debates on race and put an end to the Black Lives Matter movement.

Student: Lungile Ntuli

Faculty Mentor: Dr. Prasanthi Sreekumari

Title: ChatGPT: How the AI Tool is Challenging the Way Students Communicate

For years, user-friendly technological tools have become the norm for scholars around the world to enhance their learning experience. This became more evident during the COVID-19 pandemic when the world's academic institutions were forced to resort to online learning methods. ChatGPT has become a brand-new way for users to generate human-like responses to text inputs in a vernacular manner within minutes, and as a result, has been heavily utilized by students across the US. Despite its convenience and time-saving attributes, the AI tool has raised many ethical red flags among high school and university faculty that fear motivation and lack of retention of knowledge could affect the quality of learning within schools. In this project, we discussed the positive and negative influences ChatGPT poses towards academic circles, as well as ask an appropriate question for today's climate; how do we regulate the use of high-performing and accessible educational apps while maintaining academic integrity in the classroom?

Students: Madison Agnew, Elijah Neal

Faculty Mentor: Dr. Karletta White

Title: Possible Penalties Unnoticed? Impact of Skin Tone on Neighborhood Outcomes

It is well documented that skin tone creates wealth disparities both within and across racial/ethnic groups. This study is not only one of the first to examine if darker skinned Blacks are more likely to live in majority Black neighborhoods, but, it is also one of the first to test if darker skinned Blacks perceive their residential environment to be less safe and of lower quality than the neighborhoods of their lighter-skinned counterparts, controlling for differences in income. Preliminary analysis suggests that the darkness of one's skin tone may be playing a role in their perceived neighborhood quality and violence.

Student: Meleah N. Pea

Faculty Member: Dr. Audrey Kim

Title: Bringing Health Awareness to the Community: One Post at a Time

Over 95% of the world's population has health problems, with over a third having more than five ailments, and 72.3% of the US population actively use social media, totaling 240 million people. This research project is a newly developed campaign to foster a student, faculty and staff, and administration dialogue about Health Equity at Grambling State University in Grambling, LA, in the community and worldwide. Health Equity is the core of this social media campaign designed to help students and faculty on campus, online, and people worldwide think about their food choices, physical and mental health, and everyday well-being decisions.

Musical & Dramatic Performances

Black and Gold

Evaluators: Dr. Audrey Kim, Dr. Sharonda Hatter, Dr. Tazinski Lee

11:45 a.m. – 12:30 p.m.

Student: Marvin Moore

Readers: Karrington Jackson, Sylvester Williams, Micah Allen

Faculty Mentor: Mr. Kyle T. Zimmerman

Title: "Gains"

Gains is a short comic play (developed as a project for playwriting) about 3 young men lifting weights to get bigger "Gains". The young man training the other two is struggling romantically and his friends provide him with somewhat dubious advice to improve his love life. We will present a staged reading of a cutting from the play.

Students: Ephinite' Hardy, Moeneshia Mcmiller

Faculty Mentor: Mr. Kyle T. Zimmerman

Title: Puppetry Skills and Design

Ms. Hardy and Ms. Miller will present an original short scene containing riddles appropriate for a K-5 audience. They will demonstrate advanced puppetry skills developed for creative drama.

Student: Destiny Berry

Readers: Jurnee Dilworth, Miracle Wright-Lindo

Faculty Mentor: Mr. Kyle T. Zimmerman

Title : Dollhouse Falling

Dollhouse falling is an award-winning play Ms. Berry wrote for the Black Seed Project sponsored by The National Academy of Black Arts and Letters. The play tells the story of a young woman struggling to find her place in the world whose journey becomes the catalyst for healing her dysfunctional family. We will present a 5-minute scene from the play in the form of a staged reading.

Student: Jurnee Dilworth

Readers: Jaeda Garner, Marvin Moore, Sylvester Williams

Faculty Mentor: Mr. Kyle T. Zimmerman

Title: "That Night"

A staged reading (5 Min) of the final scene of Ms. Dilworth's play "That Night". The play tells the story of a love triangle that leads to a crime of passion.

ART EXHIBITIONS

Favrot Student Union- Atrium -Viewing 9:00 a.m. – 2:00 p.m.

****The students will be present to discuss their work from 12:30-1:30 p.m.**

Evaluators: Dr. Stephanie Bundle, Mr. Marcus Davis, Terry Matthews

Student: Tiara Dorsey

Faculty Mentor: Ms. Emily Ezell

Title: Back of my Mind

This piece is just a visual representation of the many things going through the minds of us young adults trying to navigate through life.

Student: ShaMar White

Faculty Mentor: Mr. Rodrecas Davis

Title: BMF

This piece was inspired by watching the BMF series. It's about two brothers doing whatever it takes to take care of their loved ones. This drawing is of Big Meech and his son Lil Meech. Lil Meech plays his father in the show, and I wanted to capture the two in my drawing.

Student: ShaMar White

Faculty Mentor: Mr. Rodrecas Davis

Title: Strive for Greatness

I called this piece Strive for Greatness to motivate the audience to do the same thing. Lebron is one of the best players in the game of basketball and he strived for it. The constant working out and perfecting his craft got him to being the all-time scoring leader in the NBA.

Student: ShaMar White

Faculty Mentor: Mr. Rodrecas Davis

Title: GRBT (Great)

Kobe Bryant is one of the best to players in the game of basketball. His mentality to be great is something I try to tell myself through my artwork.

Student: ShaMar White

Faculty Mentor: Mr. Rodrecas Davis

Title: Mar the Great

I drew myself as a sculpture to show that I'm great. Instead of the usual sculpture from years back, I did one of myself. The background is violent, but, it can be perceived as people overcoming problems, and standing on top by being strong.

Student: ShaMar White

Faculty Mentor: Mr. Rodrecas Davis

Title: 4PF

In this piece, I wanted to capture rapper Lil Baby. The city of Atlanta is at the bottom with him and his 4PF logo is in the sky.

Student: ShaMar White

Faculty Mentor: Mr. Rodrecas Davis

Title: Life is Perspective

In Kendrick Lamar's video, The Heart part 5, he talks about 5 people and their perspectives on life. He starts as his self but changes to OJ, Jussie Smollet, Kanye, Kobe Bryant, Will Smith, and Nipsey Hussle.

Student: Hernandez Itzel

Faculty Mentor: Mr. Rodrecas Davis

Title: The Persistence of Notion

My work focuses on the human shape and its behavior. I think that the most beautiful thing about the human body is its constant movement and its spontaneous behavior. As well as we are always in constant

change and most importantly, in constant learning. The behavior of the human figure is really difficult to deduct as well as it represents something powerful. My preferred techniques used for this Project are watercolor and oil painting. I think these three techniques make my work more varied and exciting to look. The purpose of my work, “The Persistence of Notion” is to encourage someone’s hopes. Let them know that there are impossible to pursue who we are and how we think. My work is inspired well to show the power of transparency and tolerance in society and the great changes or feeling that we can generate when we open ourselves to someone else’s idea or purpose.

POSTER PRESENTATIONS

Favrot Student Union-Atrium Viewing: 9 a.m.-2 p.m.

****Students will be present to discuss their work from 12:30 p.m.-1:30 p.m.**

Evaluators: Dr. Cheri Holbrook, Dr. Ora Rice

Student: Shamara Telemacque

Faculty Mentor: Dr. Waneene C. Dorsey

Title: Gateways to Cancer: Pentachlorophenol Orchestration of Inflammatory Proteins in TIB-73 Mouse Liver Cells

Inflammatory response proteins are present in about 40% of human cancers and in chronic arthritis. In particular, inflammatory proteins such as the tumor necrosis factor have been sequestered in gastric- and ovarian cancers, and chronic inflammation. We chose to use the environmental contaminant, pentachlorophenol (PCP) to activate an inflammatory response in our study to identify inflammatory proteins. PCP is an organochlorine fungicide used to prevent termites and other wood-boring insects from damaging wood products. The U.S. Environmental Protection Agency has established PCP as a prevalent human Group B2 cancer-causing agent. We hypothesized the transcriptional activity of inflammatory proteins through p38/MAPK activity. Employing the Western immunoblotting technique, a dose-dependent upregulation of the 54 kDa ATF-2, 38 kDa phosphor-p38, and 25 kDa TNF- α was observed in 4 μ g PCP/mL, and 8 μ g PCP/mL. The overexpression of phosphor-p38/MAPK increased, and the transcriptional activity of ATF-2 and TNF- α was enhanced. These data suggest that p38/MAPK activity is a fundamental requirement for optimal upregulation of ATF-2 and TNF- α which can be seen in various types of cancer.

Student: Cazembe Zubari

Faculty Mentor: Mr. Dileon Saint-Jean

Title: Construction of a Natural Language Processing Model Using Neural Networks

Natural Language Processing is an area of deep interest with research developing tools such as ChatGPT and DALL-E. NLP models attempt to understand and derive context. This research project constructs an NLP model using Neural Networks capable of generating text one character at a time. Various parameters of this model are evaluated such as the number of layers, learning rate, and epochs to improve model prediction accuracy, the chosen metric. Generating text/ words that are valid is the goal, however, despite high levels of accuracy, the model was unable to perfectly create syntactically correct text.

Students: Trinity Dulaney, Myria Pope, Brenda Coakley,

Faculty: Mr. Cordara Harper

Title: A Historical Review of the Evolution of Choral Music at Grambling State University

A Historical Review of The Evolution of Choral Music at Grambling State University

Established in 1947. This study aims to examine the development of the GSU Choir and learn about the life, heritage, and music of notable professor of choral music Robert E. Williams. Williams served as a music and choir director professor from 1960 to 1986 at GSU. One of the highlights of his life was his personal dedication to the civil rights movement with Dr. M.L.K. Jr. By examining primary sources, we sought to explore the legacy of the choral area at GSU through programs, interviews, written first-hand accounts, vinyl records, and cross-referencing with archived music department artifacts.

Student: Ajadan Brinson

Faculty Mentor: Dr. Abdul Khaliq

Title: Electronic Stethoscope

The aim of our current research is to design and build an electronic stethoscope. In stage one, the sensor, amplifier, and filter will be built. In the second stage, we plan to analyze the chest acoustic data to detect any chest problems. The key steps involved are picking up chest acoustic, converting acoustic to an electric signal, and detecting any heart or chest abnormalities.

Student: Austin Bristo

Faculty: Mentor: Dr. Hector Douglas

Title: Plastics Among the Plankton: Plastic Ingestion by Planktivorous Seabirds

Microplastics in marine environments are understudied. We developed methods for a time-series analysis at Bering Strait. We studied colonial seabirds at Little Diomed, AK. We utilized density separation, the Fenton reaction, and alkaline digestion, methods from the literature. We assembled an apparatus with commercial sanitary equipment, and stainless-steel screen filters (1000-5 micron). Microplastic-containing samples obtained from gastrointestinal tracts were classified according to size. Preliminary results show that auklets ingest clear and translucent plastics, which they appear to retain in the small intestines. This could increase toxic effects and interfere with nutrient absorption.

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