8th Annual Academic Summit
University of Louisiana System
Grambling State University
April 11-12, 2019
University of Louisiana System

For your future. For our future.
Dr. James B. Henderson
President and CEO, University of Louisiana System

On behalf of the Board of Supervisors for the University of Louisiana System, welcome to Grambling State University for the eighth annual University of Louisiana System Academic Summit. The summit will focus on service-learning, undergraduate research, and artistic expression. We appreciate Grambling for hosting and look forward to the opportunity to take in the culture and history nestled in the piney woods.

We eagerly anticipate the Summit each year as a chance to gather together as a System and celebrate the immense talent within our nine member institutions. Our future will ultimately be shaped by the student. We must provide each of the 92,000 students we serve every opportunity to not only hone their skills academically, but also to foster their personal development.

I deeply appreciate each faculty and staff member’s participation in the Summit. You are the direct link between the students and the university. Know that your efforts are impactful and long-lasting.

I encourage everyone attending the Summit to take advantage of this opportunity and network with students, faculty, and staff from your sister institutions. Thank you for all you are doing to help the UL System make Louisiana all she can be.

For your future. For our future.

Sincerely,

Dr. Jim Henderson
President and CEO
University of Louisiana System
Greetings,

On behalf of the students, faculty and staff of Grambling State University, I welcome you to Grambling State University for the 8th Annual University of Louisiana System Academic Summit. We are honored to have you on our campus.

This summit is a showcase of outstanding research, scholarly activity and creative output. You represent the best and the brightest in the University of Louisiana System. We are truly proud of your accomplishments and pleased to celebrate your achievements at this forum.

Enjoy your visit to Grambling State University, “where everybody is somebody”. If time permits, please visit the Eddie G. Robinson Museum located on our campus.

Again, thank you for coming, and welcome.

Sincerely,

Richard J. “Rick” Gallot, Jr., JD
President
Grambling State University
Dr. Rory L. Bedford  
Director, Continuing Education and Service-Learning  
Service-Learning Council Member  
Chair, Steering Committee

Colleagues:

Studies show that when service is a component of classroom learning, students are more likely to stay in school, graduate and become engaged in their communities throughout their lives. Thus, America becomes stronger because of a better educated well-rounded workforce with practical experience that is realized through application. Service-Learning is the innovative academic interactive learning tool that facilitates this experience, enhances knowledge and builds character.

Working with the arts helps individuals develop key skills needed for problem solving. The arts bring people together from all walks of life and help us to understand and appreciate values and diversity. The arts are yet another resource for promoting learning. Research enhances knowledge and builds character. It challenges individuals to find solutions to some of the most thought-provoking concerns of the world. It would be difficult to imagine the world without the benefits that come from research. Hungarian biochemist and Nobel Prize winner, Albert Szent-Gyorgyi once said that “Research is to see what everybody else has seen, and to think what nobody else has thought.” Embodied together, service-learning, research and the arts form a partnership that promotes academic growth and development.

The member institutions of the University of Louisiana System (ULS) should be commended for establishing a summit that highlights these three educational tools that facilitate knowledge and add value to the lives of others. It has been my pleasure as the chairperson of the Grambling State University Academic Summit Steering Committee to work with the preparation and implementation of this conference. On behalf of the Committee, welcome to the Eighth Annual University of Louisiana System Academic Summit.

Sincerely,

Rory L. Bedford, D.Min, Ph.D
Laissez les bon temps rouler:

It is a distinct pleasure to personally welcome each of you to the 8th Annual University of Louisiana System (ULS) Academic Summit. Our theme for the conference is “We are One” – a unified system with 9 unique member institutions working in concert to make a positive contribution to higher education. Our uniqueness provides a potpourri of experiences, cultures, music, art, research, service, and learning that together forms a “Taste of Louisiana”.

I’d like to personally invite you to attend as many sessions of the summit as possible. Thursday evening each university will showcase talent in visual and performing arts in the Conrad Hutcherson Performing Arts Center. A reception will follow in the Black and Gold Room of the Favrot Student Union. Participants will experience a “Taste of Louisiana” by sampling food from the various regions of our state and enjoying a mixture of Louisiana musical genres. For those who love the nightlife, enjoy the Tiger Fest concert in the Fredrick C. Hobdy Assembly Center immediately following the reception. Friday enjoy the service-learning, undergraduate research, and poster presentations featuring our students, faculty, and staff.

Our featured speaker for the Summit is Dr. Adolph Brown. Dr. Brown is an educational and clinical psychologist, master teacher, humorist, author, and philanthropist. Adolph donates 1/3 of his consultation fees to support his vision of creating a million dollar scholarship endowment for hardworking young people. Dr. Brown’s focus on research, service, teaching, leadership and the arts makes him the ideal speaker for our awards luncheon.

Before I close, I’d like to thank each of you for attending the 8th Annual ULS Academic Summit. Our concerted efforts as educational leaders, learners, and facilitators of knowledge ensure a brighter future for our state, nation, and beyond. The talent displayed by UL System universities’ faculty, staff and students prove that we have the wherewithal and expertise to produce the human capital, leader, and researchers needed for a Global Society. There is no doubt that despite setbacks, we as a system continue to meet the challenges of our field and excel.

It has been a pleasure to work with the committee while preparing for the Academic Summit. Thank you for entrusting the implementation of this important event in our care. My personal respect and thanks goes out to all of you.

Sincerely,

Ellen D. Smiley, Ed.D.
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8th ANNUAL ULS ACADEMIC SUMMIT
Hosted by Grambling State University

Thursday, April 11, 2019

1:00 p.m. – 5:30 p.m. ................................................................. REGISTRATION/CHECK-IN
Conrad Hutchinson, Jr. Performing Arts Building, Lobby

3:00 p.m. – 4:00 p.m. ................................................................. POSTER SESSION I
Conrad Hutchinson, Jr. Performing Arts Building, Band Room

4:00 p.m. – 5:00 p.m. ................................................................. Mr. Adarian Williams - Presiding
SGA President, Grambling State University, 2017-2018 & 2018-2019

WELCOME AND OPENING REMARKS
Dr. James B. Henderson
President and CEO, University of Louisiana System
Richard J. “Rick” Gallot, Jr., JD
President, Grambling State University

PERFORMING ARTS SHOWCASE
Conrad Hutchinson, Jr. Performing Arts Building, Floyd L. Sandle Theatre
(Transport: GSU Shuttle bus will be available for the next location)

5:00 p.m. – 6:30 p.m. ................................................................. VISUAL ARTS EXHIBITION
Favrot Student Union Atrium

RECEPTION – “TASTE OF LOUISIANA; WE ARE ONE”
Favrot Student Union, Black and Gold Room

7:00 p.m. ................................................................. TIGERFEST CONCERT
(Featuring: Kash Doll, Blac Youngstar, City Girls, and Yella Beezy)
Fredrick C. Hobdy Assembly Center
Friday, April 12, 2019

8:00 a.m. – Ongoing .................................................. REGISTRATION/CHECK-IN
Jacob T. Stewart Building, Lobby

8:30 a.m. – 10:30 a.m. .................................................. CONCURRENT SESSIONS
Jacob T. Stewart Building, 2nd Floor

10:30 a.m. – 10:40 a.m. .................................................. BREAK
Jacob T. Stewart Building, Room 262

10:40 a.m. – 11:30 a.m. ............................................... POSTER SESSION II
Conrad Hutchinson, Jr. Performing Arts Building, Band Room
(Transport: GSU Shuttle bus will be available for the next location)

11:45 a.m. – 1:30 p.m. ............................................... LUNCH
Fredrick C. Hobdy Assembly Center

Dr. Ellen D. Smiley
Provost and Vice President for Academic Affairs
Grambling State University
Presiding

GREETINGS .................. Dr. Jeannine Kahn, Provost and Vice President for Academic Affairs, ULS

INTRODUCTION OF SPEAKER .................................. Presiding Officer

KEYNOTE SPEAKER ........................................... Dr. Adolph Brown

ULS ACADEMIC SUMMIT SERVICE-LEARNING PROJECT PRESENTATION:
Disaster Relief Supplies for the Tornado Victims in Alabama ...................... Dr. Rory Bedford
Director of Continuing Education and Service-Learning
Mr. Adarian Williams
SGA President, Grambling State University, 2017-2018 & 2018-2019

CLOSING REMARKS ........ Ms. Erica Calais, Vice President for Student Affairs and Governance, ULS

WRAP UP: MEDALLIONS, PICTURES AND DOOR PRIZES
University of New Orleans

Performer: Emelie Lasseigne  
Faculty Mentor: Ms. L. Kalo Gow

Music for GLORIA: “Ophelia Street” & “Glitter Witch”  
Lyrics by L. Kalo Gow  
Music written & performed by Yotam Baum  
Emelie performs songs from Theatre UNO’s production of “GLORIA” by Branden Jacobs-Jenkins. An ambitious group of assistants at a notorious Manhattan magazine vie to write the obituary for once-famous singer, Sarah Tweed, who died under dire circumstances. The playwright names 3 song titles but leaves their creation to the production.

University of Louisiana at Lafayette

Performers: Trevor Guidry and Ethan Farnsworth  
Faculty Mentor: Mr. Garth Alper

Do You Mind?  
We will be performing a comedic duo for trumpet and tuba. This musical selection has been approved by Dr. Garth Alper in the UL Lafayette School of Music.

Southeastern Louisiana University

Performers: Joshua Herbert, Timothy Sutton, Austin Hynes and David Lanzetta  
Faculty Mentor: Ms. Brina B. Faciane

Drastic Measures for Saxophone Quartet (1976)  
The undergraduate saxophone quartet of Southeastern LA Univ. proposes to perform movement I. Poco adagio, molto espressivo of Drastic Measures, composed by Russell Peck.
**Northwestern State University**

Performer: Darius Williams  
Faculty Mentor: Mr. Oliver Molina  
Pulsar  
_Pulsar_ is a groovy, polyrhythmic snare solo composed by Francisco Perez. This piece, inspired by Neil deGrasse Tyson’s _Cosmos_ as well as the rhythmic style of Mike McIntosh, is performed alongside a beautifully atmospheric soundscape, which was inspired by the electronic music group Moderat.

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**Louisiana Tech University**

Performers:  
INSIDE GIRL played by Kaitlin Riley  
LAURA AUSTIN played by Jacey Rae Russel  
HURT played by Colton Askew  
BURNOUT played by Quan Sun

Faculty Mentor: Mr. Mark Guinn  

_Begets:_ Fall of a High School Ronin, Act 2 Prologue  
_Begets:_ Fall of a High School Ronin is a play written by LATech Alumni Qui Nguyen, the play is directed by Professor Mark Guinn, the fight direction is by 2nd Year Graduate Student Samantha Lancaster  
The Act Two Prologue provides a pivotal moment in the history of the main character as she recounts how she began her journey to justice and peace began.

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**Grambling State University**

Performers:  
Victoria Eggleston – Poet  
Jessica Keys - Visual Artist  
Desmond Mitchell – Alto Saxophone  
Piano Accompanist: Dr. Joseph Henry

Faculty Mentors: Ms. Natorshau Davis, Mr. Rodrecas Davis, and Mr. Michael Price

La marne #gramfam - A Collaboration with Music and Visual Arts  
_Picnic on the Marne: Seven Waltzes_ written by Ned Rorem  
For Alto Saxophone and Piano with added visual arts presentation and poetry  
An allusion to the photograph Sunday on the Banks of the Marne, Picnic on the Marne will walz you through an afternoon spent in the south-eastern parts of Paris. Rorem’s composition showcases the syncopated rhythms and octatonic scale constructions which allows the soothing elements of jazz to be heard.

Selections to be Performed: Driving From Paris, A Bend in the River, Bal Musette
Favrot Student Union Atrium  
Thursday April 11, 2019, 5:00 p.m. – 6:30 p.m.  
**Presenting author(s) is/are underlined and listed first.

**Grambling State University**

**Rose Waves (Medium: Mixed Media on Canvas)**  
Javanah Barnes  
Faculty Mentors: Mr. Rodrecas Davis and Ms. Donna McGee

*Gravity has its way of turning our ordinary imagination into reality. Rose Waves was created using the force of gravity while being rotated in a 360-degree angle to create flowing patterns and gentle textures that represent the way the world rotates.*

**Passion Vs. Profit (Mixed Media on Canvas)**  
Marshawna Kendrick  
Faculty Mentors: Mr. Rodrecas Davis and Ms. Donna McGee

*My work is based on artwork that I have created to reflect on my journey where many people and experiences have inspired me to follow what I’m truly passionate about. I will project people doing a certain skill, tale, or career that they are extremely passionate about. My artwork is oil paintings of some family members and close friends. These people have helped me be encouraged and motivated within the path I desire to take in life. Looking up to these people I have learned that no matter what career I choose I should be passionate about it. Being passionate about something is a long-time happiness that can’t be bought nor given.*

**Key to Both Worlds (Medium: Digital Media)**  
Jessica Keyes  
Faculty Mentors: Mr. Rodrecas Davis and Ms. Donna McGee

*Key to Both Worlds investigates how color psychology encourages spiritual, emotional, and psychological growth through storytelling. The higher our aspirations, the greater the energy we generate our personalities and minds toward our future outcome; which is the ‘key’ to both worlds.*
4780 (Medium: Mixed Media on Canvas)
Chris Lewis
Faculty Mentors: Mr. Rodrecas Davis and Ms. Donna McGee

In my continuing body of work I try to create a sense of balance. Balance in the imagery, subject matter, and stylistic approach. What I want to do with my works is to show the personality of my characters depicted, their backstories, and how the individual strands of these stories weave together.

Iris (Medium: Acrylic on Canvas)
Bianca Walker
Faculty Mentors: Mr. Rodrecas Davis and Ms. Donna McGee

I believe the driving force behind my work is love. Love prospers in spaces where we’re vulnerable and I feel like creating those spaces with my work is important. To take love, which is typically presented as complicated, as something automatic and simple which it is in spaces where vulnerability is encouraged. By allowing the paint to be vulnerable, my shapes become more organic and natural; these shapes are visual representations of love.

Louisiana Tech University

Untitled (Medium: Mixed Media)
Akeylah Wellington
Faculty Mentor: Mr. Kyle Triplett

After being in too many rooms where things happen without being given a proper seat at the table, I am hyper-aware of the pernicousness of American institutions which properly serve few. Historical and ongoing inattention to such institutions can result in generational perceptions of powerlessness. As a result, I alternate between confronting unfairness and escaping from it. I fluctuate between making maliciously designed objects and sterile, beautiful objects. When making sterile forms, I employ an endurance-based, process-driven workflow. I choose to work with mediums which reveal the maker’s hand. By limiting myself to minimal forms and their repetition, I am able to work for long periods of time while exercising an amount of control otherwise inaccessible to me.
La Campana (Medium: Digital Print)  
Cinthia Rincon  
Faculty Mentor: Mr. Kyle Triplett

I grew up being taught that this country prides itself in its diversity. In 2010, Arizona Senate Bill 1070 was passed, which allowed the state of Arizona to deport Latinx looking citizens despite citizenship. I was told that even if Texas were to adopt something like this, I would be safe. “You were born here. You should be fine.” This opened my eyes to the dangers of being different. I want to communicate that the media doesn’t always show the truth.  
Loteria is a game from Mexico and can be simplified as “Mexican Bingo”. Instead of using ping-pong balls with numbers and letters, cards with colorful imagery are used. These images have grown into ionic symbols within the Latinx community and have been repurposed for other usages. I’m modernizing the deck with interviews from individuals from the Latinx community who are being affected by current events and the growing tension between them and the U.S. With each of my cards, their stories are displayed in English and in Spanish. I want the audience to connect to the stories and the people in them. I want them to understand that these are real people who are just as vulnerable and fragile as playing cards. I want their poster-sized counterparts to be too big to be ignored. My goal is to act as a liaison, bring attention to the Latinx community and correct any prejudices one may have.

Blue (Medium: Digital Photography)  
Skylar Taylor  
Faculty Mentor: Mr. Kyle Triplett

This body of work is the representation of the discovery I have made in finding an outlet to let go of my self-conscious and let out my inner child. Child Skylar is youth. She is curious, her reality is wild, and her nature is primal. She is the one who is able to hear, able to see, able to piece patterns together and connect the details. She is the most intelligent being in me. She sees the past, present, and future in clarity. When I let her have the floor I become a host for the most famous ghost. Discovering myself as a child has given me direct access into glimpses of the Garden, again. I am given signs, I see them, and I relay them back to you. This world has become something rigid and crude and I am finding that people in this life are desperate to find an escape away from the weight of this reality. I believe that when we feel this way, it is ultimately because our inner child has started to die and we are fatally detached from the source. As we are all an interconnected manifestation of the source, which lives somewhere deep within us all, I feel this weight as well, and this particular part of my life path has me creating work in an attempt reach out to you, to offer help to one another. My work not only displays my own signs, but signs for you, too.
D1 (Medium: Fiber/Mixed Media)
Meredith Specke
Faculty Mentor: Mr. Kyle Triplett

I find the concept of natural versus man-made compelling. Questions of nature and origin find root in questions of a larger power and in essence, nature vs. man and God vs. science are the same arguments just on different planes. This is not to pit these subjects against one another but to depict how we rationalize reality and categorize facts, theories, and ideas. Perhaps the easiest way we can see God move is through science.

Recently I have been making pieces that could be considered “natural” as well as “man made”. A large part of my focus has been on mastering the materials, and less emphasis has been placed on decisive detail meaning. I enjoy working with yarn and ceramics because they are not completely natural and neither are they fully man made they are also bordering both the craft world and the world of fine art.

My work’s intention is to create a moment of equalness and respect as we consider something new, and to create a civil moment between two lines of thought. The first being creationism, leaning on the idea of something greater, and the other being scientific fact. The goal of my work is to show both trains of thought and how they often coincide with one another and slowly come together in agreement. The work draws parallels, bridging a divide in beliefs.

Untitled (Medium: Mid-Range Stoneware)
Kaitlin Self
Faculty Mentor: Mr. Kyle Triplett

My work is rooted in the tradition of utilitarian pottery, where functionality is the most important consideration when making. Each piece I make is unique to a single moment, slightly different from the last with its own matchless presence; this uniqueness brings a sentimental quality to rituals of daily life. It is these moments that I am most interested in; a cup of coffee in the morning becomes an intimate moment between the user and the object, and by extension, the artist.

I find inspiration in many places: nature, architecture, fashion, and historical ceramics. I take elements from all my inspirations and reduce them to their simplest forms. A ruffle on a skirt becomes a subtle undulating rim, and the repeating windows of a building become graphic marks in the surface.

McNeese State University

A Mathematical Revolution (Medium: Digital Art)
Madison Wyatt
Faculty Mentor: Dr. Heather Kelley

This work was created using a variety of digital scans of crayon rubbings, taken from various surfaces and textures around the art department, for McNeese's digital foundations, art and the computer class. Our goal was to create an engaging digital image using only very basic components.
Breaking Thoughts (Medium: Monotype)
Christopher Latil
Faculty Mentor: Mr. Jacob Dugas

This piece explores fine quality of a monotype print by showing its ability to create texture, reductive qualities, and use of painterly techniques. The piece was created on a piece of acrylic glass, and intaglio ink was used. The ink was applied using a variety of materials such as brayers, brushes, and knives. The application of the ink with these materials gives the piece qualities of a print, and a painting.

Overgrown Mistakes (Medium: Photography)
Esther Thompson
Faculty Mentor: Dr. Heather Kelley

Remember We Begin the Same
Hannah Wyninger
Faculty Mentor: Dr. Heather Kelley

Landscape Sketchbook (Medium: Handmade Books)
Younger Rob
Faculty Mentor: Dr. Heather Kelley
Nicholls State University

Fairytaile Book Covers (Medium: Graphic Design)
Kayla Landry
Faculty Mentor: Ms. Trisha Rabalais

These handlettered book covers were created to represent the history of each novel. The typography style is inspired by the origin of the story and is further represented by the color of each cover. The cohesive elements of vines and leaves create a system using the elements that are similar through each storyline.

After Claesz with Carbs (Medium: Jet Ink Print)
Hannah Lee
Faculty Mentor: Ms. Deborah Lillie

This photo is a recreation of Dutch Still life in a modern way.

West Thibodaux Evolution (Medium: Graphic Design)
Kayla Pfister
Faculty Mentor: Ms. Trisha Rabalais

Smoke Prince (Medium: Printmaking - Lithograph)
Kaitlin Stevens
Faculty Mentor: Mr. Ross Jahnke

This piece is a lithograph done using an aluminum plate. It is my first project done in the lithography class. It is loosely drawn and features a smoky atmosphere, implying a sense of confusion. The print is meant to convey confusion with regard to one's identity. The figure's limbs are especially pronounced as they are distorted to be much lengthier than a typical person's.
Self Portrait (Medium: Oil Painting)
Lila Thomas
Faculty Mentor: Mr. Joseph Holsapple

Color is an unspoken language that successfully communicates with our conscious and subconscious minds. In this self-portrait, I wanted to translate my curiosity for color by using a variety of bright colors contrasting against muted tinted colors. I also wanted to emphasize the use of the planar form of the figure because using simple broad shapes can still show enough information about the subject. Also capturing the light was an important factor because its elusive quality can transform a figure. Aside from the formal aspect of the painting, I want the viewer to take a glimpse into my personality and love for color.

Northwestern State University

The Fox Box (Medium: Mixed Medium)
Isabella Jones
Faculty Mentor: Mr. Matthew DeFord

The pizza box was created for Fox's Pizza Den as a class assignment to rebrand a pizza company and create a package design for their product. I used a minimalistic and whimsical approach to create this single-slice box. Since the new logo contains a fox's head that is meant to represent a slice of pizza, I went on to construct a physical box out of this logo element.

Untitled (Medium: Mixed Media)
Julian Shum
Faculty Mentor: Mr. James Borders
Melopomene (Medium: Mixed Media)
Rachieal Gaude
Faculty Mentor: Mr. Matthew DeFord

When I encounter certain artworks, they strike me as old friends, and I like to think that those artworks greet me with a returned fondness and excitement. I create art because I want others to feel that personified familiarity that I experience with art. I desired to heighten my illustrations—literally—into ornate, three-dimensional structures that beckon a second glance, and maybe even a smile, much like we do with our familiairs in passing. "Melpomene" is a non-existent, but reminiscent reimagining of the streets of New Orleans. The ornamented porches, shuttered windows, and motley of trees against a starry sky make this humble cityscape feel like home.

Primary Poses (Medium: Acrylic paint on mixed media paper)
Amari Carmouche
Faculty Mentor: Mr. Matthew DeFord

This was one of my pieces for my Design finals meant to portray asymmetry. It's a fun little piece inspired by Keith Haring and made with a character I had been using for the nearly entirety of that semester for my works.

Bloody Mary (Medium: Acrylic on Board)
Madeline Monlezn
Faculty Mentor: Mr. Matthew DeFord
London Calling (Medium: Silkscreen)
Jacob Gibson
Faculty Mentor: Mr. Kevin Hagan

By channeling personal feelings of inadequacy, anxiousness, and isolation; the work depicts abandoned, cold, and even dirty spaces that are presented as possible places of sanctuary, retreat, and solitude.

These sets are staged with familiar imagery and objects that are accessible to me. The objects are used to convey themes that represent a personal tradition reflective of abuse, disregard, and most importantly abandonment that was prevalent within my turbulent upbringing.

Placed in these environments, that lack human social interaction, are objects paired with birds symbolizing conversations of a world that is seen as normal but hold conversations of adequately, death, and loss.

I do not intend for, or expect the viewer to be concerned with the specific personal event that might inspire an image, I do intend to engage the viewer with that event’s peculiar and evocative presence. I want to force these heavy emotions onto the viewer, drawing them to seek refuge within the scene and be confronted with the intense feelings and emotions associated with that image.

Ponderosa Stomp Music Festival Poster (Medium: Digital Illustration)
Jessica Harrington
Faculty Mentor: Mr. Kevin Hagan

The 2017 Ponderosa Stomp Music Festival Brochure Poster is a rebranding of Ponderosa and redesign of the 2017 line up. The theme, “Tune Your Feet to the Beat,” was conceptually thought of to bring a more playful vibe to the design and add a more modern twist to the festival branding. The brochure poster was designed in 2018, using personal photographs I had taken at Lafayette’s Festival International.

Untitled (Orange Flocking) (Medium: Concrete and Nylon Flocking)
Mindy Lancaster
Faculty Mentor: Ms. Emily Stergar

Salvaging of broken and discarded materials form the basis of the physical aspects of my work. They are the visual metaphor surrounding failure, specifically my failures in helping people by intervening in their lives. It is impossible to fix a solid structure with pliant materials and vice versa. The
juxtaposition of hard and soft materials highlight the ineffectiveness of the intervention and the residue left behind after the attempt.

**Morning Routine (Medium: Digital Print)**  
*Megan Lord*  
Faculty Mentor: Mr. Kevin Hagan

**A State of Creation (Medium: Stop Motion Animation)**  
*Camille Broussard*  
Faculty Mentor: Mr. Kevin Hagan

Animation offers a more playful realm in which it's possible to rediscover reality. We can explore our anxieties, like those of existential distress, in a new light-hearted way. I use playful imagery to detach worries from their power to unsettle and demoralize, and instead befriend them as vibrant, sometimes humorous aspects of being alive. I find that the anxiety regarding what particular significance lies behind life and consciousness is especially worthy of such playfulness.

**University of Louisiana at Monroe**

**Maze (Medium: Pastel)**  
*Trey Gordond*  
Faculty Mentor: Mr. Cliff Tresner

This piece is from a series of works called "true colors." It's mainly about being able to exist in your own space and being true to who you are and not being for it. Growing up I was not really encouraged to be who I was. My family wanted me to be something that I wasn’t meant to be but. Through this series of works I use bright colors with portraiture to create a scene that the portrait can exist in.
Highway Trip (Medium: Oil on Canvas)
Inique Harris
Faculty Mentor: Mr. Cliff Tresner

"Sweet Girl" (Medium: Acrylic, Pen, Collage)
Jodie Faulk
Faculty Mentor: Mr. Clifford Tresner

In this self-portrait, I am a snow leopard clad in a sensual red dress. I used elements of folk art combined with an overall kitsch theme to create a surreal scene that feels familiar, but also unsettling. The word "Pastry" is the first word my boyfriend thinks of when he hears my name, and the word speaks to me, so it is included as a collage element to add interest and curiosity.

Self-Portrait (Medium: Oil)
Alexis Smith
Faculty Mentor: Mr. Cliff Tresner

In a lot of my art work it is about me finding myself, and confidence within myself. This self portrait gives me the opportunity to see myself in a different light and be able to accept myself the way I am.

Tastes Like Childhood (Medium: Oil)
Katelyn Vaughan
Faculty Mentor: Mr. Cliff Tresner

This work was created with a desire to communicate something about myself. I wanted to show a glimpse into my early life with a painting. In it i tried to not only capture the textures of my subject material, but the other senses surrounding them as well. With how i painted them I hoped to share with the viewer how they felt, sounded, and even perhaps tasted. I have always enjoyed art as a form of communication and the ways in which it can communicate.
University of New Orleans

Granddad Otis (Medium: Heavy Body Acrylic)
Ashleigh Gaude
Faculty Mentor: Ms. Kathy Rodriguez

For the past few years, I have been experimenting with different styles, mediums, and techniques to expand upon how I approach painting. So far my style has not been consistent, but I am more content with every painting I do after the last. My main focus has been large abstract portraits done by pallet knife, after being inspired by Joshua Miels. For my last semester of my senior year, I did a pallet knife portrait of great grandfather, Granddad Otis, as an independent study in art. Besides the background of the piece, which is tinted gesso, I smeared on heavy body acrylics with a pallet knife to create his face shape and depth. It was also an experiment with colors as I originally wanted the painting to be blue and grey, but the more I painted, the more teal and burgundy appeared, which soon became my favorite color pallet. My favorite thing I noticed is that as I painted, the more I realized how the serious expression in the portrait was nowhere near as serious as it seemed. I've never met my Granddad Otis, but from spending a few weeks recreating his persona, I was able to see all of his smile lines like the wrinkles around his eyes and mouth.

Naholo: Ghosts of Louisiana (Medium: Digital Photography)
Rachel Billiot-Bruleigh
Faculty Mentor: Mr. Dan Harper

A collection of photos from different ecosystems across Louisiana that express the death of the land through images of skeleton trees/plants, ghost swamps, fading barrier islands, and oil extraction in the Gulf. Naholo means “to be sacred” in Houma, a tribe indigenous to Louisiana. All of these areas are sacred, once providers and protectors. However, their deaths come in the form of skeleton oaks, ghost swamps, oil rigs, and dying freshwater plants as their habitat converts to a brackish/saltwater environment. There is a bird in each photo, representing the spirit of the area. These are the ghosts of a sacred, dying land.

Gibson (Medium: Acrylic Paint on Wood Panel)
Amanda Gullette
Faculty Mentor: Ms. Cheryl Hayes

I am currently developing my portrait painting techniques. This painting is a likeness of my youngest daughter Gibson when she was around five years old. I typically work from social media images so this was a nice change of pace since the image came from a family photo album rather than a selfie online. It is a very personal painting and is hopefully successful and capturing the innocents of youth.
Zesty Collage (Medium: Garbage and Glue)
Ellsbeth Truitt

My warm hued creation is an amalgamation of trash and odd things I found around the city of New Orleans. It sums up my first year at UNO. I used glue and tape to combine weird pieces of trash. Each bit of garbage has a story behind it, and reminds me how lucky I am to be in New Orleans with all its weirdness.

Realizing Stuff (Medium: Film print)
Vieta Collins
Faculty Mentor: Ms. Ariya Martin

Realizing Stuff, is a photographic series that explores the space between the real world and the dream world using large format photography and created with double exposures in the darkroom. As artists, we have the ability to create our own perception of who we are based on what we believe, how we feel, what we eat, etc. when we realize what makes us unique human beings, we are able to embrace those things and make art.
Grambling State University

101 - Session I – Thursday, April 11, 2019
Wireless Gas Leakage and Fire Detection part II
Muath Alshuaile, Maheeb Alameeri, Qasim Al Eid, Ali Aldubaisy, and Abdullah Alzaher
Faculty Mentor: Mr. Lane Eilien

This project aims to develop a system that can help reduce damage by detecting gas leakage and fire remotely. This can be used for monitoring storage facilities of other facilities without environmental monitoring. This is being completed to fulfill the senior project requirements for a Bachelor of Science degree in Engineering Technology. The first phase was completed at GSU during fall 2017 to Spring 2018. This second phase includes, more precise gas monitoring, long range wireless communication, PCB circuit design, package design for the sensor and product testing. Gas and flame detector sensors, a camera, embedded processor and communication module are integrated into the sensor module. The receiver module utilizes, a display, buzzer, lights, embedded processor, and communication modules for receiving information from the sensor module and for contacting emergency services upon gas or fire detection. In addition to audio visual tokens, the user will also be notified through a text message. This project involves sensor interfacing, programming, circuit design, package design and product testing. Team members make design tradeoffs to make the product as economically viable as possible.

102 - Session II – Friday, April 12, 2019
From Concept to Creation: The Process of Set Design
Morgan Drain and Lauren Weaver
Faculty Mentor: Mr. David Kaul

Students will display 2 fully realized set design models, one from Harlem Duet and the other from St. Valentine’s Day, as they talk about their design process, and the choices they had to make based on being taught “how to read a play”.

103 - Session I – Thursday, April 11, 2019
Exploring Race, Gender, Marital Status and Longevity
Lauren Williams, Versace Hicks-Butler, Devante Allums and Rachel Moten
Faculty Mentor: Dr. Frances Staten

Using tombstones and monuments, this ethnographic-exploratory study investigated longevity differences among blacks and whites, men and women, and husbands and wives who were born during the late 1800s, and buried in historical rural cemeteries in Northern Louisiana. Preliminary findings confirm the consistency of findings on gender longevity. Males were found to outlive their female counterparts irrespective of race or marital status. Black Females were found to outlive their white counterparts if they made it to 80 years old,
due to the cross-over affect. Gender and socio-cultural theories can provide probable explanations for the observed differences in longevity in the studied groups.

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104 - Session II – Friday, April 12, 2019

Transferring the Messages using steganography Technique

Nakius Glosson

Faculty Mentor: Dr. Yenumula B. Reddy

The goal of the project was to create a basic steganography program that encodes data into pictures using the least significant bit (LSB) method and a decode function. Initially, I chose to implement steganography in my programs using the LSB method. The way the LSB method works is that you have to take the RGB values from the source you choose to use and convert them to binary. Once converted you can then encode your message into the binary data. The last step of my program was to add a password to my program and I did this by using the getpass and sys import.

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105 - Session I – Thursday, April 11, 2019

Fluorescence Turn-On Sensor for Measuring Unfolded Proteins During ER Stress

Seraya Jones, Tiffany Francis, and Robynn Hadley

Faculty Mentor: Dr. Paul Kim

Proper protein folding is essential for normal biological processes and is therefore closely regulated by the cell. In response to cellular stress arising from unfolded proteins within the Endoplasmic Reticulum (ER) lumen, cells activate the Unfolded Protein Response (UPR). Chronic UPR activation has been implicated in neurodegenerative and metabolic disorders. The pathogenic mechanisms are not fully understood however because the UPR can also be triggered independently of unfolded proteins. Saturated fatty acids for instance have been shown to activate the UPR through effects on the ER membrane. Currently, techniques to monitor protein folding within cells are limited. To better understand the role of protein misfolding in saturated fat-induced UPR, we used a fluorescence turn-on molecule as a protein folding sensor. The molecule is a coumarin derivative that turns on fluorescence when bound to native transthyretin (TTR), a protein known to fold and assemble within the ER of liver cells. We hypothesized that this method is a direct way of measuring protein misfolding within cells.

The sensor was synthesized by KareBay Biochem (New Jersey) and validated by 1H, 13C NMR and LC/MS. To verify target specificity, fluorescence assays were carried out at 405 nm Ex and 486 nm Em. We measured baseline fluorescence of PBS (background), 3.6 uM BSA (nonspecific binding), or 3.6 uM purified TTR (n = 5). Upon incubation with 7.2 uM sensor, the fluorescent signals increased above baseline in all solutions, but the signal increased 9.6-fold more with TTR than BSA, demonstrating specificity. Addition of 10 M urea quenched the fluorescence suggesting that the increased fluorescence was due to the sensor binding to native TTR.

To detect misfolded TTR in cells, H4IIE rat liver cells (ATCC) were treated with 178 nM thapsigargin for 4 to 6 hours to induce protein misfolding. Total lysates from treated and untreated cells were used in fluorescence assays as described above (n = 3). Upon incubation with sensor, the fluorescent signals from the lysates increased but the predicted decrease in signal with thapsigargin treatment was not observed. We hypothesized that the signal from TTR was being masked by all of the other nonspecific proteins in the lysate. To increase the signal to noise ratio of the assay, cells were transfected with a TTR ORF clone using Lipofectamine 3000. Ongoing work is focused on exposing TTR-transfected cells to saturated fatty acids to determine the role of protein folding in saturated fat-induced UPR activation.
106 - Session I – Thursday, April 11, 2019

Invertebrate Population Estimation through Decomposing Wood in Berlese Funnel
Annabelle Grounds, John Riggins, Courtney Siegert, and Juliet Tang
Faculty Mentor: Dr. Natalie Clay

Half of Earth’s biodiversity exists in belowground systems like decomposer food webs, however, most of this diversity remains understudied. Deadwood is especially difficult to extract invertebrate communities from and current methods can exclude smaller species, potentially damage invertebrates, or take considerable time. Berlese Funnel extraction methods have not been tested on wood but may be optimal by allowing for more accurate measurements of species abundance from the entire community regardless of size. The objective of this study is to test the efficacy of Berlese in extracting invertebrates from decomposing wood over time and determine if species differ in their rates of extraction using this method. We predict that the body size and life history of individual species will affect their rate of extraction. To conduct this experiment, a downed log was cut into 10 even slices and placed into collapsible hanging Berlese funnels and invertebrates from each slice were collected after 1, 6, and 15 days. Invertebrates from each time period were counted and identified from 3 of the wood slices. In total we found 2,083 invertebrates from 16 orders with an average of 69.43 ± 15.09 after 15 days. In general, the invertebrates were extracted at a higher rate over time and did not level off after the 15th day suggesting this method should be conducted for a longer time period. This method will improve research in forest ecosystems through the ability to estimate invertebrate populations in wood comprehensively, therefore understanding their effect on the rate of decomposition.

107 - Session II – Friday, April 12, 2019

Direct and indirect low-level sodium additions to riparia impact leachate quality
Maggie Herrmann
Faculty Mentor: Dr. Natalie Clay

Freshwater salinization is a global problem that is increasing in part from agriculture practices such as irrigation that contribute to increased salt runoff into nearby riparian zones and streams. Increased salt input can stimulate or decrease decomposer activity in aquatic and terrestrial zones depending on the quantity. To test the hypothesis that low-level sodium inputs in riparian zones direct water inputs or indirectly via salt-enriched litter from riparian plant sodium uptake will stimulate decomposer activity and increase the amount of dissolved organic carbon leached in streams, we setup two mesocosm experiments. The first experiment manipulated salt deposition in water, while the second experiment manipulated sodium content in artificial litter. Half the mesocosms in Experiment 1, with natural leaf litter, were watered with NaCl water and the other half were watered with deionized water. All mesocosms with artificial litter were watered with deionized, but half of the artificial litter was soaked in NaCl water solution at the beginning of the experiment and the other half in deionized water. Leachate from mesocosms was collected monthly and analyzed for chemistry and conductivity. After three months, leachate conductivity in Na-enriched artificial litter mesocosms was 18% greater than controls. Na-watered mesocosms had an 8% increase in conductivity from the first to last month, whereas control mesocosm had a 59% decrease in conductivity over time. However, in the artificial littered mesocosms, both the treatments had decreased conductivity over time, but conductivity in Na-enriched artificial litter mesocosms decreased faster than in control artificial litter mesocosms.
Using RT-PCR to Investigate the Role of the Notch Pathway in Self-Renewal of hASCs

Avery Bryan, John Bradley Cart, and Chris Miller
Faculty Mentor: Dr. Jamie Newman

Polymerase Chain Reaction, often referred to as simply PCR, is a common scientific technique used to amplify DNA. In our lab we work with Reverse Transcriptase PCR (RT-PCR), which first generates cDNA from mRNA in order to investigate patterns of gene expression. RT-PCR allows for thousands to millions of copies of cDNA to be made in just a few hours. Once a specific cDNA template has been amplified, gel electrophoresis can be used to visualize the product and indicate the presence or absence of transcript, amount of transcript, and in some cases mutations in that transcript. Specifically, we are interested in studying expression of genes associated with the Notch signaling pathway, a pathway that is known to play a key role in the differentiation and self-renewal of human Adipose Stem Cells (hASCs). The Notch pathway consists of four receptors: Notch1, Notch2, Notch3, and Notch4, and five ligands: Jag1, Jag2, DLL1, DLL3, and DLL4. As hASCs are being used more clinically to treat inflammatory and degenerative health conditions, it is important to understand signaling pathways and how they determine cell fate and behavior. The optimization of primers includes altering the temperature at which the primer anneals and altering the number of cycles run to amplify the template. Optimizing primers allows us to characterize genes and further explore how the siRNA knockdown or perturbations to the Notch pathway effects the expression of related genes. The more we know about the receptors and ligands that make up the Notch pathway, the more we will be able to understand about the differentiation and self-renewal of hASCs.

Investigating the Role of Notch 1 and Notch 3 in Human Adipose-Derived Stem Cell Self-Renewal and Adipogenesis

Hannah Logan and MengCheng Liu
Faculty Mentor: Dr. Jamie Newman

Background: Human adipose-derived stem cells (hASCs) are multipotent stem cells that have the ability to self-renew and differentiate into a limited number of cell types of the mesodermal lineage making these cells an attractive tool for regenerative medicine and cell-based therapies. The Notch signaling pathway is a contact dependent cascade that modulates many important cellular processes, including cell-to-cell communication, cell-fate determination during development, and cell proliferation. Irregularities of the Notch pathway are linked to a variety of devastating developmental disorders and cancers.

Methods/Results: Following exposure to adipogenic media hASCs displayed increased levels of Notch1, Notch3, and downstream target genes, hes1 and hey1. In order to better understand the role of Notch3 we performed an siRNA-mediated knockdown of Notch3 during adipogenesis. Oil Red O staining revealed that the loss of Notch3 promoted the accumulation of lipid vesicles while qRT-PCR and western blot assays revealed that the expression level of known adipocyte markers increased following the loss of Notch3 as did the level of activated Notch1. Finally, immunofluorescence was performed to investigate the localization of both Notch3 and Notch1 and revealed that Notch1 was only enriched in adipocyte differentiated hASCs, while Notch3 was activated in hASCs undergoing adipogenesis.

Conclusion: These results suggest that Notch1 is expressed in adipocytes to promote lipid accumulation while expression of Notch3 in adjacent hASCs is activated by differentiated adipocytes to maintain multipotency. As our investigation continues, we will have a more thorough understanding of the role of Notch1 and Notch3 in stem cell self-renewal and adipogenesis.

References:
1. Frese L, Dijkman PE, Hoorstrup SP. Adipose Tissue-Derived Stem Cells in Regenerative Medicine.
110 - Session I – Thursday, April 11, 2019
Investigating protein interactions within the Mediator complex through ChIP and Co-IP
Connor Bennett and Conner Hartuppee
Faculty Mentor: Dr. Jamie Newman

Human Adipose-Derived Stem Cells (hASCs) are multipotent stem cells with the potential to self-renew, differentiate, and suppress inflammation. As hASCs continue to be tested in clinical trials for their therapeutic potential, scientists seek a more complete understanding of how stem cell state is maintained and how cell fate is determined. The behavior of hASCs is determined by signaling pathways, transcription factors, co-factors, and the gene expression profile that they regulate. The kinase domain of the Mediator complex is a critical regulatory element responsible for activating cell-type specific transcription factors that control gene expression. To study the role of individual subunits within the Kinase Domain of Mediator, we are using immunoprecipitation techniques that isolate specific proteins along with the proteins and genomic regions they interact with. Chromatin Immunoprecipitation (ChIP) is a multi-step process that isolates and enhances the genomic regions upon which transcription factors and other proteins bind to the genome. Each step of the ChIP protocol requires optimization and step-by-step validation to confirm interaction of target proteins with specific regions of the genome; specifically genomic regulatory regions where Mediator is responsible for directing transcription. Co-Immunoprecipitation (Co-IP) is a second technique used for studying protein interactions based on the ability to capture proteins that are bound to specific target proteins. By utilizing ChIP and Co-IP, we are able to determine specific interactions within the kinase domain and better understand the role the subunit proteins have in stem-cell maintenance through transcriptional regulation.

McNeese State University

111 - Session I – Thursday, April 11, 2019
Monitoring Levels of Fecal Indicator Bacteria in Water Bodies Impacted by Aerobic Sewer System Effluent
KC Rajan
Faculty Mentor: Dr. Christopher Struchtemeyer

Aerobic sewer systems are used to treat wastewater in many rural areas of the United States. Many of these systems discharge effluent directly into ditches and ravines that rely on sunlight for disinfection purposes. This practice is problematic since very few studies have examined whether effluent from aerobic sewer systems is adequately disinfected by sunlight. In many cases, the disposal ditches or ravines that receive effluent from aerobic sewer systems flow directly into or near major recreational water bodies. The goal of this work was to assess the environmental impacts of aerobic sewer system effluent by monitoring the microbial quality of water from: 1) Ditches and ravines where aerobic sewer system effluent gets discharged and 2) The Calcasieu River, which intersects with several ditches and ravines that collect aerobic sewer system effluent. The microbial quality of ditch, ravine, and river samples was evaluated by monitoring concentrations of Escherichia coli.
fecal coliform bacteria. The results of this work showed that E. coli and fecal coliforms were present at levels of up to $1.2 \times 10^5 \text{ cfu/100 ml}$ and greater than $3.0 \times 10^6 \text{ cfu/100 ml}$, respectively in ditches and ravines where aerobic sewer system effluent was disposed. E. coli and fecal coliform bacteria were typically undetectable in the Calcasieu River during periods of dry weather, but were present at levels of up to $9.5 \times 10^3 \text{ cfu/100 ml}$ and $8.8 \times 10^4 \text{ cfu/100 ml}$, respectively following rain events. These results show that fecal indicator bacteria from aerobic sewer systems persist in disposal ditches and ravines and are then flushed into the Calcasieu River during rain events. These observations represent a significant public health concern since the Calcasieu River is used for a variety of recreational activities including fishing, boating, jet skiing, and swimming.

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**112 - Session II – Friday, April 12, 2019**  
**Can Streamers Be Considered Celebrities?**  
Aaron Lamb  
Faculty Mentor: Dr. Tracy Standley

The streaming platform Twitch currently dominates other platforms for online streaming. The most popular streamers are seen as role models by pre-teens and teenagers. A streamer’s job consists of playing videogames for hours on end for the amusement of their followers and subscribers. The objectives of this research project are to answer the following questions. Are Twitch streamers as popular as celebrities on social media? How do streamers compare to celebrities using Google Trends data? Are streamers or celebrities more efficient on YouTube? Ten celebrities were selected from Forbes.com richest celebrity list of 2018 while ten streamers were selected from Socialblade.com list of most popular streamers. The number of total Twitter followers was collected for all of the celebrities while the total number of Twitch and Twitter followers were collected for streamers. Google Trends data was collected for each individual from January to December 2018. For YouTube efficiency, the number of total channel views, total number of videos, and number of subscribers were collected for each individual. A content analysis was used and three t-tests were run to test the hypotheses. Of my three hypotheses, only one was proven. Through this research I believe that streamers should not be considered celebrities for the time being. Although interest in streaming is at an all-time high, as of right now there is not enough data to push streamers into celebrity status when compared to some of the top celebrities in the world.

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**113 - Session I – Thursday, April 11, 2019**  
**A World-Wide Review of Yellow Fever Outbreaks, 1996-2018: A Biometeorological Analysis.**  
Veronica Stewart  
Faculty Mentor: Dr. William Dees

We reviewed yellow fever (YF) outbreaks occurring since 1996 from the World Health Organization using Disease Outbreak News (DON; www.who.int) and other sources to assess the climatological effects on YF virus transmission. Yellow fever is a mosquito-borne pathogen of the family Flaviviridae for which Aedes and Haemagogus spp. are the primary vectors. The majority of the disease outbreaks occurs in Africa, and about a quarter of the outbreaks occurs in South America. For the duration of the outbreak and two weeks prior to the initial case, weather parameters were recorded including temperature, humidity, dew point, wind speed, barometric pressure, and precipitation. Each of the parameters were daily collections reported by the National Oceanic and Atmospheric Administration (NOAA) from 1996 to the present. Disease Outbreak News reported 83 YF outbreaks worldwide. Three representative outbreaks were chosen for analysis: Minas Gerais, Brazil (2017); Greater Darfur, Sudan (2012); and Kedougou, Senegal (2011). The outbreaks occurred during periods of drought (0 in. precipitation), while during non-outbreak periods NOAA reported precipitation (rainfall) in each area. The average temperatures for the duration of all of the chosen outbreaks ranged from
Preliminary Histologic Findings from an Investigation of American Eel (Anguilla rostrata) Populations in Louisiana
Valeria Faria
Faculty Mentor: Dr. Amber Hale

The American eel (Anguilla rostrata) is commonly found in Louisiana waterways, however very little is known about their life history, population abundance, or best practice sampling techniques. The Louisiana Department of Wildlife and Fisheries (LDWF) has undertaken a pilot project to increase knowledge about location and abundance of these elusive eels. One identified project limitation is that for eels under 400 mm it is not possible to determine sex without histologic evaluation. Eel gonads may develop directly into ovaries, testes, or pass through an intersex stage. Furthermore, the timeline for sexual differentiation likely spans several years and is affected by several environmental factors including temperature, salinity, population density, and nutrient availability.

To assist LDWF in this endeavor, MSU has been processing eel gonad samples from all sampling locations and size categories to aid in sex determination. Gonadal tissues were paraffin embedded, sectioned to 7 μm thickness, and stained with H & E. Over 100 eel samples have been processed and analyzed to date. The histologic data compliments morphometric, location, and ageing data collected by LDWF to build an initial understanding of the status of American eels in Louisiana. This study represents one of the few conducted on wild-caught eels, as most work is conducted on farmed specimens.

Nutrient Load of Bermuda Grass Pastures Housing Grazing Sows and Pigs
Blake Nunez and Chip LeMieux
Faculty Mentor: Dr. Byungkyun Chung

The objective of this project was to determine temporal variability of soil nutrients in pasture raised swine operations over multiple years. Macro and micro minerals, pH and nitrogen levels were determined at two depths over multiple years. Three preselected sites 1) no swine or animal activity, 2) long term (heavy) swine activity, and 3) medium/low swine activity were sampled at seven points within the respective location. Initial samples were collected in 2012 in August and December and the most recent in 2018 during the same months.

Regardless of stocking rate and month of year K, Mg, P, and Fe increased over time. When elements were compared over time between pasture lots that had continuous swine activity to no swine activity the largest percent increase occurred in Fe (45%), K (46%), and Mg (47%). When elements were compared over time in lots that had no swine Mg (67%) and P (52%) had the largest greatest percent increase. There was no change in pH or N over time and regardless of swine stocking rate.
Red Edge Effects of a Fluorescence Dye Probe Adsorbed onto Bovine Serum Before and After UV Photolysis

Mabile Taylor
Faculty Mentor: Dr. Matthew Marlow

This research is investigating the interactions of 1-anilinonaphthalene-8-sulphonic acid (ANS), a sensitive fluorescent molecular probe, with the protein bovine serum albumin (BSA), before and after UV photolysis, to observe possible changes in binding. UV Photolysis degrades the tryptophan residues which may alter the protein structure and hence the binding sites. Changes to the binding sites may be observed by changes in the red edge spectroscopy of ANS. Red edge effects result in shifts to longer wavelengths of the fluorescence emission maximum of ANS. Red shifts are a function of the physical environment experienced by the probe. Several wavelengths for photolysis were investigated: 220, 254, and 300 nm. ANS was added to the BSA solutions after photolysis to minimize any photo-bleaching of ANS. A decrease in the emission intensity was observed for each photolysis wavelength after photolysis. This reduction indicates a decrease in binding of the ANS, which is non-fluorescent in water. However, some ANS remains bound to the ANS. The data suggests that upon destruction of the tryptophan residue that the binding site of ANS still bound is unaffected by the photolysis. The change in protein structure is a localized effect. Some additional work on ANS photophysics is being undertaken by examining the effect of ANS concentration on its red edge spectroscopy. These experiments are being performed in glycerol, a highly viscous liquid solution at room temperature. Several concentrations of ANS have been examined.

Scientific Illustration of Louisiana’s Native Bees

Emily Fromenthal
Faculty Mentor: Dr. Allyse Ferrara

Louisiana is home to over one thousand species of native bees. Like European honeybees, most of these bee species are efficient pollinators. However, they also fill other niches. These bees can be roughly divided into several categories including bumble bees, digger bees, carpenter bees, sweat bees, cuckoo bees, leafcutter bees, and mason bees. The purpose of this project was to exhibit the diversity of our native bee species through scientific illustration. A total of nineteen female bees were illustrated using anatomical descriptions, reference photos, and observations. These drawings were combined in order to create a poster showcasing these species, their unique anatomy, and key traits.

Effect of Sulfonamide Antibiotic on Carbon and Nitrogen Removal in Wastewater Treatment Process

Hiba Soorya
Faculty Mentor: Dr. Raj Boopathy and Dr. Sarah Rogers

Sulfamethoxazole and Trimethoprim are the commonly used sulfonamide class of antibiotics. Antibiotic resistance in bacteria in waste water treatment plants is a major concern due to the presence of antibiotics and
Bacteria in high concentration in these facilities. It is important to understand the effects of antibiotic resistant bacteria (ARB) and their antibiotic resistance genes (ARGs) in the environment. The Thibodaux sewage treatment plant is an ideal habitat to study ARB and ARGs. Samples were collected from the anaerobic digester of the Thibodaux sewage treatment plant and a bacterial consortium was developed. This bacterial consortium was exposed to various concentrations of sulfamethoxazole and trimethoprim. The results showed the bacteria were not inhibited even at the maximum concentration of 250 mg/L tested in the study. The bacteria were able to remove carbon and nitrogen compared to control with no antibiotics. Two pure cultures were isolated and identified. Both these pure cultures used sulfamethoxazole and trimethoprim as the sole source of carbon. The bacteria developed necessary enzymes to degrade the antibiotics. The presence of specific sulfonamide resistant genes, namely, sul1 and sul2 will be analyzed in the pure cultures.

119 - Session 11 – Friday, April 12, 2019
A Proposal to Enhance Inter-unit Communication Upon Transfer of Hospitalized Patients
Mason Ducote
Faculty Mentor: Ms. Meryn Olivier

Communication in hospitals between clinical staff is essential to ensure the delivery of safe and effective care. The opportunity for information to degrade is present during any patient transfer, however it is a significant problem for critical patients of the Emergency Department (ED) and Intensive Care Unit (ICU) as they are often receiving life-supporting medications or ventilation. Handoffs within these departments should be standardized, as they can be the difference between life and death for patients. Zakrison et al. (2016) found that 48% of charts reviewed in a hospital with no formal handoff tool had some type of information discrepancy (p. 934) Improving staff communication also remains a National Patient Safety Goal by the Joint Commission (2018).

This analysis was conducted on patient transfers from the ED to ICU at Hospital X. Examples of issues arising due to lack of standardized handoff reporting include significant errors in medication rates and omissions such as lack of wound documentation. Resulting medical errors increase occurrence of sentinel events, and lack of reimbursement for pre-existing conditions that were not documented properly, thereby creating a loss of income.

Hospitals should prioritize the implementation of a standardized handoff tool to improve the accuracy of handoff reporting on patients being admitted from the ED to ICU setting in an effort to mitigate errors, improve patient safety, and increase the quality of care.

A change proposal to implement a standardized handoff tool for ED to ICU admits will improve patient safety and reduce medical error.

Northwestern State University

121 - Session I – Thursday, April 11, 2019
Evaluation of Paint Primers on Weathered Wood
Aura Hernandez, Guadalupe Mendez, Word Lindsey, Joshua Rivers, Bailey Walker, Jason Church, and Mary Striegel
Faculty Mentor: Dr. Jafar Al-Sharab

Historic exterior wood is affected by water and UV exposure over an extended period of time. The best way to protect the wood is applying a durable paint/primer system specifically for historic, weathered wood. The main purpose of this study is to find the best primer and paint system to preserve historic exterior wood. The study consists of testing three different paint systems on 60 samples (15 control samples) of untreated
weathered wood. The samples were prepared and treated using five different applications methods, depending on how many layers were applied, and if the primer was latex based or oil based. The QUV weatherometer is used to test the effect of weather on the samples for a period of 3800 hours. The study was conducted in accordance to ASTM ISO standard 11507. The tested samples were evaluated based on color, gloss, and visual appearance before and after UV exposure, using the various characterization techniques such as colorimeter, glossmeter, FTIR (to see degradation and chemical components of the paints), photography, public opinion survey, and a pull off test.

122 - Session II – Friday, April 12, 2019
Aqua-Wave Engineering
Charles Johnson, Daniel Jose, Mason Bulot, and Terrius Bell
Faculty Mentor: Dr. Jafar Al-Sharab

The purpose of this project is to help NSU E-LAB to fulfill its mission regarding improving elementary students’ knowledge on plant and animal symbiosis trough Aquaponics Greenhouse System. This study focuses on combining a greenhouse with an aquaponics water system to allow users control of various sources for plant growth. The project is incorporating safety features which makes the design a childproof aquaponics system so that elementary students can study plant and fish symbiosis safely. Temperature, nutrients, and water flow are the key variables and users will be able to manipulate in this project for plant and fish development. The design for this experiment concentrates on simple but efficient systems so that elementary students may comprehend the system for educational purposes.

123 - Session I – Thursday, April 11, 2019
Framework Development for ADA Compliance Renovations for pre-1990’s Structures
Patrick Sprung, David Veal, Adam Barnes, and Lane Robinson
Faculty Mentor: Dr. Nabin Sapkota

The Americans with Disabilities Act signed into law on July 26th, 1990 under the George H.W. Bush administration was heralded as, “... another Independence Day, one that is long overdue; every man, woman, and child with a disability can now pass through once-closed doors into a new era of equality, independence, and freedom.”-H.W. Bush. Titles I, II, and III of this legislation, including amendments, revised and updated regulations, and increased standards to better accommodate a more modern society, ban all forms of discrimination in areas of employment, public accommodation, public services, transportation, and telecommunications on the basis of disability.

The authors have proposed a framework to be utilized by public entities enabling a more proactive than reactive approach in terms of building accessibility. This multilayered framework aids in the identification of non-compliant characteristics of a structure, and suggests categorical revisions and renovations based on three key criteria; time, cost, and complexity.

As a pilot study, three pre-ADA legislation era buildings; two pre-1990 construction, John S. Kyser Hall and Fournet Hall, and one post renovation structure under updated ADA regulations in 2005, Williamson Hall. The study consisted of interviewing students, identifying inconsistencies of past renovations current constructions through field inspections, categorizing findings based on their resource demands, the time required, and complexity, developing and prioritizing plan on corrective actions and working with the NSULA physical plant to coordinate implementation. Our findings are currently under review and are in the approval process before final compliance renovations are applied to these structures.
124 - Session II – Friday, April 12, 2019
Process Improvement by Root Cause Analysis Through Re-Work Data
Cassandra Osborne, Oai Lee Huynh, Ryan Reed, and Eddie Jones
Faculty Mentor: Dr. Nabin Sapkota

The main goals of any manufacturing facility are to decrease waste and increase productivity. In lean manufacturing, re-work is considered one of the mudas (wastes). In any manufacturing setting, eliminating these mudas is the primary objective. In order to eliminate or reduce such mudas, identification of the assignable causes (sources) is paramount. In this study, re-work data on scroll compressors were collected and analyzed to identify various root causes of failure modes by model type. The findings of the study have narrowed down and, in some cases, determined the sources of failures. The study has also shown that the probability of failure is not consistent across models and failure types. These results will be used to devise corrective actions to eliminate root causes behind each failure mode. Establishing the root causes of these failures is crucial to process improvement.

125 - Session I – Thursday, April 11, 2019
Assessment of Water Repelling Penetrant on Masonry Structures
Daniela Forero, Mason Caubarreux, Cory Franklin, and Luz Arrieta-Jimenez
Faculty Mentor: Dr. Jafar Al-Sharab

Antique, or low fire, brick has suffered critical damage from mortar repairs of Portland Cement in the US, specifically water damage as moisture cannot move equally through low fire brick and Portland Cement. Effects of such an intrusion of water include spalling, stains, efflorescence, algae growth, and a decrease in insulating properties. The best way to continue preservation is to block moisture from entering the brick or mortar by using a water repelling penetrant. This research will compare the most widely used penetrants, siloxane and room temperature vulcanizing (RTV) silicone on low-fire brick and determine which product is best for preserving the masonry. Water repelling abilities as well as water vapor permeability were tested using Rilem tubes, a freeze/thaw chamber, as well as simple weight comparisons to determine water absorption. Different characterization techniques were used in order to assess the optimum properties of the water-repellent coatings.

Southeastern Louisiana University

126 - Session I – Thursday, April 11, 2019
The Effects of Female Economic Independence on Divorce Rates: An Empirical Evidence from the OECD Member Countries
Brandon Richardson
Faculty Mentor: Dr. Sang Lee

This study attempts to shed new light on the instability of marriage union with emphasis on the economic or opportunity costs borne by female labor force in terms of the potential for female economic independence. Using a cross-sectional time series data from the 36 OECD member countries over 25 years, we investigate variations in divorce rate primarily through changes in the labor force characteristics such as the share of female labor force, female employment opportunities, and the human capital potential of female labor force. Our fixed effects estimation results show that the amount of education acquired by female labor force is positively correlated with divorce rates while female unemployment rate and the gender gap between male and female in employment opportunities are negatively correlated with divorce rates.
127 - Session II – Friday, April 12, 2019  
Programming for the Early Ruskin Manuscripts  
Damodar Dahal  
Faculty Mentor: Dr. David Hanson

We discuss the development of the website, Early Ruskin Manuscripts (ERM), 1826–1842, which is hosted at erm.selu.edu. ERM contains youthful manuscripts written by John Ruskin (1819-1900), the leading art critic of the nineteenth century in Britain, America, and Europe. The website hosts licensed copies of original manuscripts written by Ruskin, along with transcriptions and commentary by Dr. David Hanson, a prominent Ruskin scholar. On our poster, we discuss technical aspects of building the website, including the organization of facsimiles and file types (e.g., transcriptions, apparatuses, notes, etc.), extracting metadata from file types and building a search engine, easing file management and working environment for the staff, as well as improving navigation on the user end.

128 - Session I – Thursday, April 11, 2019  
Novel Synthesis of Tetradentate NacNac Ligand Variants  
Pedro Jimenez-Antenucci  
Faculty Mentor: Dr. Benjamin Wicker

A synthetic route of novel tetradentate NacNac ligands in the field of organometallic chemistry was viewed in this project. The direction of this project took an emphasis towards finding a potential industrial use for the proposed NacNac, also noted as β-diketiminate, Ligands which are often expressed to be involved in catalytic processes. With the synthesis of these novel NacNac ligands, it is planned to for the project members of the Wicker Lab to study the chemistry of the ligand variants synthesized with different pendant arm variants. Overall, using the synthesized variants bind with a specific metal and propose different chemistry and analyze their binding properties. It has being stated that NacNac ligands can stabilize most elements of the periodic table to form main group, transition-metal, lanthanide, and actinide complexes. First row transition metals potential choices due to their abundance in nature and very inexpensive. Modification of the carbonyl substituents of the backbone of the monoanionic acac to N-R groups allows for different variants varying in bonding and steric effects. Commercially available reagents were accessed and used for the reaction conditions published in the field. In order to make our novel ligands, acetylacetone, also known as 2,4-pentadione and amine containing varying groups must be prepared in order to proceed the synthesis of our proposed ligands. Synthesized products will be confirmed through Nuclear Magnetic Resonance and mass spectrometry.

129 - Session II – Friday, April 12, 2019  
Pt-catalyzed O-silylation of oximes and alcohols by hydrosilanes  
Samuel Giglio, Mercy Agbo, Shreeja Bhatt, and Shreya Bhatt  
Faculty Mentor: Dr. Jean Fotie

Silylated oxime derivatives are important intermediates in organic synthesis. They are critical auxiliaries in the asymmetric synthesis of amines. During a comparative analysis between the Speier’s catalyst (H2PtCl6.6H2O in isopropanol) and Pt(0) nano-dispersed in a range of organically modified silicates as catalysts for the hydrosilylation reactions,1 it was noted that H2PtCl6.6H2O was able to catalyze the O-silylation of 4-methylbenzaldehyde oxime in the presence of triethyilsilane. This reaction represents an effective catalytic procedure for the O-silylation of aliphatic and aromatic aldoxide and ketoxime derivatives. A quick exploration of the reaction conditions was undertaken, and a number of solvents including toluene, acetonitrile, dichloromethane, dioxane and THF were investigated. The optimal catalyst load was also determined, and the optimal reaction conditions appeared to be suitable for a large-scale preparation of a wide range of silyloxime ethers. The stereoselectivity of the reaction was investigated, through the preparation
of 25 aldoxime and ketcime derivatives in quantitative yields, involving a number of hydrogen silanes including trimethylsiline, trisopropylsilane, diethoxymethylsilane, triphenylsilane and triethoxysilane as potential silylating agents. The reaction appeared to be sensitive to the steric hindrance in the silylating reactants. In addition, the reaction did not work well with alcohols, producing poor yields or no product at all in some cases.

130 - Session I – Thursday, April 11, 2019
Diastereoselective synthesis of syn-β-hydroxy-α-substituted phenyl carboxylates via boron-mediated aldol reaction of substituted phenylacetates
Angela Thomas and Tommy Walls
Faculty Mentor: Dr. Pram Chanda

Synthesis of syn- and anti-β-hydroxy-α-methyl/trifluoromethyl carboxylates can be achieved by appropriate selection of alkoxy group of esters, boron reagent, amines, and reaction temperature in the boron-mediated aldol reaction of corresponding esters. The combination of a bulky alkoxy group, a bulky boron reagent, and less a bulky amine provides anti-aldols and a less bulky alkoxy group, a less bulky boron reagent, and a bulky amine provides syn-aldols. Unlike propionates and trifluoropropionates, methyl phenylacetates provides anti- and syn-aldols by just altering either temperature or solvents in the boron-mediated aldol reaction of methyl phenylacetates. The anti-aldol products of substituted phenylacetates also can be synthesized by variation of reaction temperature (~78 °C). However, a combination of a less bulky boron reagent, a bulky amine, and ambient temperature is required for the synthesis of syn-β-hydroxy-α-substituted phenyl carboxylates via boron-mediated aldol reaction of substituted phenylacetates.

University of Louisiana at Lafayette

141 - Session II – Friday, April 12, 2019
MICRO-PIXE ANALYSIS OF A CHONDRITE
Sarah McCleskey and Kaitlin Boudreaux
Faculty Mentor: Dr. Manavi Jadhav

Particle-Induced X-ray Emission (PIXE) is a form of spectroscopy in which a beam of MeV-ions bombards an object to create an electron state change. Each element, even at the trace level, has a characteristic X-ray emission that can be detected and quantified. PIXE analysis can analyze a sample with minimal damage and is more sensitive than traditional energy dispersive X-ray analysis. The present study uses quantitative Micro-PIXE elemental analysis at the Louisiana Accelerator Center, to classify and sub-classify an unknown chondritic meteorite into one of the four chondrite classes (enstatite, carbonaceous, ordinary, R, and K-chondrites). Most chondrites remain largely unaltered since their formation in the early Solar System and this provides insight into the chemistry of its formation stages. We present some preliminary data and results from this study.

142 - Session I – Thursday, April 11, 2019
Making Paper Products Using Algal Biomass and Post-Consumer Paper
Kennedy Guillot
Faculty Mentor: Dr. William Chirdon

In recent years, there have been major advances in the large-scale production of biofuels based on algal lipid extraction, which could potentially provide an environmentally-friendly fuel source. However, due to the high cost of this lipid extraction, there exists a problem in creating a biorefinery that is profitable when the only
valuable products are the biofuels. The extraction process produces a large amount of protein byproducts that would make it economically impractical to produce the biofuel if these byproducts need to be disposed of as wastes. By increasing the profitability of this byproduct, referred to as post-extracted algal residue (PEAR), operation of these biorefineries can become profitable, and biofuels may be considered economically feasible. One potential way of utilizing the PEAR is to craft it into glue. Further research into the application of this adhesive has demonstrated its practicality in papermaking. By blending the glue with recycled paper, a variety of paper products can be produced. The glue-paper mixture creates biodegradable paper that can be written or printed on. Thicker layers of this mixture formulate paper strong enough to be comparable to cardstock. Additional experimentation indicates that adding sugarcane bagasse into the glue-paper mixture generates composites similar in strength and coarseness to cardboard. Drying methods prove to be another significant factor in determining the strength of the glue-paper and have been another factor to consider in experimentation. Overall, the adhesive created by the algal biomass demonstrates great potential for use in paper products and makes algae-based biofuels more viable as profitable industry.

143 - Session I – Thursday, April 11, 2019
Mold Optimization of a Left Ventricular Outflow Tract to Ascending Aorta In Vitro Phantom
Andrew Hoffpauir
Faculty Mentor: Dr. Charles Taylor

Many people suffer from cardiovascular diseases, and improving care for people suffering from these conditions is important. The left ventricle outflow tract-to-ascending aorta is one heart valve, that houses many cardiovascular diseases. Creating silicone models to investigate valve functions is necessary to improve care for these patients. In vitro testing can be done with silicone models to investigate valve functions. Developing 3-D printed molds from an accurate CAD model of the left ventricle outflow tract-to-ascending aorta in SolidWorks is necessary in developing high-quality silicone models for in vitro testing. Creating the mold in SolidWorks requires the use of the Surfaces toolbar due to the complex geometry of the model. This allows the mold set to have two dissolvable inserts. The mold of the left ventricle outflow tract-to-ascending aorta is simplified from a sixteen fixed-piece mold set to a four fixed-piece mold set with two dissolvable inserts. The inserts allow for the silicone to cure around the insert. The insert is dissolved in water to result in a single cast piece of the model. This reduces the number of silicone pieces that are glued together from eight to two. The need for high-quality silicone models requires this mold set to be sent out for Stereolithography (SLA) high resolution printing. Simplifying the model into two silicone pieces allows the valve to be isolated for in vitro testing that can determine the function of the left ventricle outflow tract-to-ascending aorta while keeping other factors fixed. Creating a standard mold development for the left ventricle outflow tract-to-ascending aorta is important for investigating the functions of the valve.

144 - Session II – Friday, April 12, 2019
Polarization and d33 Experimentation of Carbon Nano-Fiber/Piezoelectric Composites
Christian Gary, Anthony Simon and Tyler Hacker
Faculty Mentor: Dr. Ahmed Khattab

Piezoelectric ceramics are used for their sensing capabilities and power generation. These specific materials generate voltage potential under loading, allowing for development solutions such as push-start activated appliances, sonar-reliant devices, and acoustic instruments. Innovations utilizing piezoelectric materials include alternate energy sources like kinetic energy storage through roadway, railroad, and sidewalk implementation. Lead zirconate titanate (PZT) ceramics, a particular form of piezoelectric material, has distinct energy conversion functions. Likewise, nanomaterials, like carbon nano-fibers (CNF), possess optimal performance capabilities due to their good interfacial bonding with the matrix materials. In this study, electric material output testing was performed on composites consisting of PZT and CNF, due to CNF’s superior composite enhancements, to find the piezo-electrical effects.
POSTER PRESENTATIONS

PZT/CNF composite disc samples were made by mixing pre-measured CNF and PZT and pressing each of the mixtures in a cylindrical mold before cooking them. In order to concentrate their electrical poling pathways, each sample was subjected to high electrical fields under high temperatures to lock their material electrical potentials. The developed CNF/PZT samples were subjected to vertical forces that activated the materials’ charge output. Each mixture had a different percentage of CNF in it, allowing for the examination of the difference in production of charge based on the amount of CNF it contained. The amount of charge produced in the test material due to applied dynamic load known as the d33 value. These d33 values were found to increase with higher CNF concentration.

University of Louisiana at Monroe

136 - Session I – Thursday, April 11, 2019
Energy of the quasi-free electron in CO and HD: Extension of the local Wigner-Seitz model to polar fluids
Baxter Flor, C. M. Evans, Kamil Krinski and Zachary Streeter
Faculty Mentor: Dr. Gary L. Findley

We present for the first time the quasi-free electron energy V0(p) for CO and HD from gas to liquid densities, an noncritical isotherms and on a near critical isotherm in each fluid. These data illustrate the ability of field enhanced photoemission (FEP) to determine V0(p) accurately in simple polar fluids. We also show that the local Wigner-Seitz model for V0(p) B when coupled with thermodynamic data for the fluid B can yield optimized parameters for intermolecular potentials, as well as zero kinetic energy electron scattering lengths. Acknowledgments: All measurements were performed at the University of Wisconsin Synchrotron Radiation Center, a facility that was primarily funded by the University of Wisconsin B Madison with supplemental support from facility Users and the University of Wisconsin B Milwaukee. This work was supported by grants from the National Science Foundation (NSF CHE-0956719 and NSF CHE-1495180).

138 - Session I – Thursday, April 11, 2019
Functional Annotation of Three Gordonia terrae phages: Sombrero (CS2 cluster); Dogfish (DT cluster); and Catfish (Singleton)
Katherine Feroben, ULM SEA PHAGES Program
Faculty Mentor: Dr. Ann M. Findley

We have successfully isolated twenty-four phages that infect the Gordonia terrae host, three of which have been sequenced. Gordonia phage Sombrero is similar to other CS2 cluster members, has 76,485 bp with a direct terminal repeat of 201 bases, 110 open reading frames, one tRNA, and a GC content of 39.0%. Dogfish constitutes one of two members of the DT cluster of Gordonia phages (with Nycegirae). It has 41,907 bp with a 3’ sticky overhang of nine bases, 56 open reading frames, and a GC content of 67.5%. Catfish is presently classified as a Singleton and shares a limited degree of sequence homology with the CU cluster of Gordonia terrae phages. Catfish has 46,888 bp with a 3’ sticky overhang of eleven bases, 79 open reading frames, and a GC content of 63%. We provide functional annotations of theseophage genomes and explore their relationship to other Gordonia phage clusters using the SplitsTree, Gepard DotPlot, and Phamator visualization tools. Such analyses provide insight not only into the relationship between the Gordonia terrae phages but can point to extended comparisons between other Actinobacter phage group isolates.
Variations in Pacific Tropical Cyclone Sizes and Precipitation in a GCM
Cohen Brandon
Faculty Mentors: Dr. Todd Murohy and Dr. Robert Korty

Observations have shown that tropical cyclone (TC) size varies across the North Pacific, with larger and more variable sizes common in the western part of the basin. These size variations are correlated with relative sea surface temperatures (RSST), with the largest storms found where RSST is highest. This project examines TC sizes and their associated precipitation within a global climate model that covers a 25-year period from 1980 to 2005. A filter was applied to the output of a vortex tracking algorithm to isolate the storms that occurred in the North Pacific Ocean during the months of May to November each year. A climatology was created of both sea surface temperature and RSST, to compare how the mean size of 5 m·s⁻¹ azimuthal wind speed (r₅) varies with respect to variables such as RSST and maximum intensity. We find that storm size varies from west to east in the model as it does in nature, and the relationship with RSST is similar. Storms in the western North Pacific are larger and more variable, but there is less variability in the sizes of the initial vortices. We also find that storms increase in size with latitude within the tropics. An average of the maximum precipitation rate for the duration of each storm is also examined. A strong association of the highest precipitation rates with the highest SST values was found across the North Pacific Ocean.

A Climatological Analysis of the Variance of the Ellrod Turbulence Index Based on Seasonality, the Diurnal Cycle, and the North Atlantic Oscillation
Greg Sova
Faculty Mentors: Dr. Todd Murphy and Dr. R Saravanan

Clear Air Turbulence (CAT) can pose a major threat to the aviation industry in a number of ways. While the other major varieties of aviation turbulence (Convectively Induced Turbulence and Mountain-Wave Turbulence) have visual and instrumental clues for pilots to avoid, CAT happens in clear air. This makes CAT particularly challenging for the aviation industry. Scientists at forecasting centers around the world forecast for CAT because of this, and they still use the Turbulence Index 1 (TI1) developed by Ellrod and Knapp in 1992. Using the NCEP/NCAR Reanalysis 1 data, a 25-year climatology (1990-2014) was built of the TI1. Then, data was analyzed by 3-month averages to find seasonal maxima. The winter hemisphere was found to be more turbulent than the summer hemisphere. Since data was available at a resolution of 4 times daily, the diurnal cycle was analyzed, though the magnitude of the change was small over the course of a day. Finally, the North Atlantic Oscillation (NAO) Index was taken into consideration. The positive phase of the NAO exhibits more turbulent conditions over Europe and north Africa, while the negative phase is more turbulent over Canada and southern Alaska.
University of New Orleans

131 - Session I – Thursday, April 11, 2019
Characterizing the Function of Bilin Lyase Isomerase MpeV in Marine Synechococcus sp. RS9916
Jacob Frick and Lyndsay Carige
Faculty Mentor: Dr. Wendy Schluchter

Cyanobacteria are prolific contributors to global primary production and are found ubiquitously around the world in both marine and freshwater environments. Synechococcus sp. RS9916 (hereafter, RS9916), a marine species of cyanobacteria, contain a membrane-bound protein complex with covalently bound bilin chromophores, called a phycobilisome (PBS), responsible for harvesting light energy and directing it into photosystem II. In RS9916, the PBS rods contain two types of phycocerythrin (PEI and PEII), the most distal phycobiliproteins (PBPs) of the complex. Enzymes known as bilin lyases catalyze attachment of bilin chromophores to these PBPs. MpeV is a putative lyase in RS9916 with homology to CpeF, a lyase from freshwater cyanobacteria Fremyella diplosiphon (Fd). MpeV is hypothesized to attach phycocerythrobilin (PEB) and simultaneously isomerize to phycoerythrobilin (PUB) at the doubly ligated Cys-50, 61 residues on the beta subunit of PEI (CpeB). Using a heterologous expression system, recombinant MpeV was coexpressed with CpeB in E. coli, along with the genes required for PEB synthesis. Recombinant CpeB was then purified and analyzed by absorbance and fluorescence spectroscopy followed by SDS-PAGE. These samples were further analyzed by LC-MS-MS. MpeV was found to covalently attach PUB to Cys-50, 61 of CpeB. This activity increased when CpeB was partially chromoproteinylated by CpeX, a lyase that adds PEB to Cys-82. Additionally, there was an increase in MpeV activity when it was coexpressed with CpeZ, a homolog of a chaperone-like protein in Fd. A similar expression system was used to examine the activity of MpeV on the beta subunit of PEII (MpeB), with PUB attachment detected at the Cys-50, 61 residues. Therefore MpeV is a lyase-isomerase for beta-phycoerythrin subunits and facilitates two thioether linkages to PUB at rings A and D to Cys-50 and Cys-61.

132 - Session II – Friday, April 12, 2019
Transcriptomic Analysis in Hawaiian Scaptomyza flies: an Exploration of Embryogenesis Through a Differential Gene Expression Study
Anna Rusnak and Bronwyn Miller
Faculty Mentor: Dr. Joel Atallah

Embryogenesis is jump-started by maternally supplied mRNA and protein synthesis machinery. These maternal deposits are critical to development, but their presence in the embryo is brief. Not long after fertilization, development and embryo composition becomes entirely zygotically controlled. This developmental switch is known as the Maternal-to-Zygotic Transition (MZT). Although the MZT is conserved across the animal kingdom, the scale and timing of events varies, thus influencing the formation of an embryo.

Scaptomyza and its sister genus Drosophila colonized the Hawaiian archipelago 25 million years ago. Both groups have undergone incredible diversification on the small, isolated islands. But while Hawaiian Drosophila remain confined to Hawaii, Scaptomyza was able to escape and colonize all continents except Antarctica. The exceptional diversity of Scaptomyza and its incredible radiations across the planet make them ideal organisms to study potential evolutionary drivers. Specifically, we aimed to study changes in gene expression during the MZT and its potential influence on diversification using the species Scaptomyza.
anomala and Scaptomyza elmoi.

We used RNA-seq to compare embryo gene expression of our species at stage 2 and stage 5 of embryogenesis; pre and post MZT respectively. We have demonstrated successful de novo transcriptome assemblies for both S. anomala and S. elmoi. Through our differential expression analysis of S. anomala we found 2,714 genes with greater than 4-fold differential expression between stage 2 and stage 5 of embryonic development. After annotation using Blast2Go, 1,904 genes were annotated. We aim to find and investigate a subset of genes that could have potentially aided in Scaptomyza’s colonization and diversification across the planet. In pursuit of this objective, we will compare our Scaptomyza data to comparable data from a a Hawaiian Drosophila picture-wing species, looking for key differences in gene expression.

133 - Session I – Thursday, April 11, 2019
Assessing Nesting Material Preferences in Milky Storks (Mycteria cinerea)
Patrick Hall and Michelle Hatwood
Faculty Mentor: Dr. Nicola Anthony

Milky storks (Mycteria cinerea) inhabit mangrove forests in South-East Asia where they nest in large communities. Populations have been rapidly declining with an estimated 2,200 individuals left in the wild. To assist in conservation efforts, the Freeport-McMoRan Audubon Species Survival Center has established a captive breeding colony of 10 individuals for the purpose of research and reproduction programs. However, success has been low, prompting concerns over whether the availability of suitable nesting material limits reproduction. To address this, we designed an experiment to test the hypothesis that: (a) milky storks show a preference between nesting materials and (b) selection of nesting material is influenced by its proximity to nesting sites. In the event a preference is shown, preferred materials could be made more readily available. We used a random number generator to select the location of piles of different material around the stork’s enclosure four days a week over six weeks. The behavior of each bird (inspection or incorporation of material into the nest) was monitored for ninety minutes twice a day. We found that milky storks have a significant preference for Chinese privet (Ligustrum sinense). We also found that while there was an effect of distance on the frequency with which storks inspected a material pile, distance had no effect on the incorporation of material into the nest. As a result, we recommend that in the future Chinese privet be made more available to milky storks since this may help improve the nesting success and reproduction in captivity.

134 - Session II – Friday, April 12, 2019
NASA Forklift LDE Analysis
Mitchell Maurin
NASA Internship

The objective of this project was to assess the status of Lifting Devices and Equipment(LDEs) across Stennis Space Center(SSC), and then to provide a cost-benefit analysis driven plan to reduce costs and boost efficiency at the space center. Methods of data collection involved in field inspections and assessments, interviews of staff on site, and compilation of data into a newly created automated spreadsheet that would break down the inputted data. The results of the project were savings of $245,000+ across the next 5 years on site, the acquisition of new LDEs to replace outdated equipment, and an increase in efficient procedure across site. The project also yielded the potential for future internship projects involving the implementation of RFID or GPS tracking for the LDEs on site, which would fit within the budget of the savings generated by the original project itself. Maintenance costs on site to LDEs were reduced by an overwhelming 74.16% while the cost of operation for forklifts were reduced from $2.76/Hr to only $0.73/Hr of Operation. These savings generate great opportunities for SSC to complete future projects, further mission success, and open new opportunities to future students in internship roles.
Objectives: A couple of mine are understanding the history of the site, and the culture of the area through the years. Investigating the occurrence of some rather interesting artifacts is also something I would like to include. The emphasis will be mainly on the function of unique crucibles recovered at the site.

Methods: The methods used include excavation of the site, analysis within the lab, and researching the known history of the area.

Results: Crucibles are a special type of crucible, called a cupel, which were primarily used for the assaying of precious metals.

Conclusion: The occurrence of these cupels could mean, based on other evidence, is that person living here was possibly involved in button making or gilding more specifically.

Summary: I started working in the lab processing artifacts from the 626 Bourbon last semester, and this semester I will be attempting to connect the dots in the history of the 626 Bourbon site through the artifacts found at the site. In doing that I will provide an explanation of the methods I used to reach my conclusion. Evidence will be used to support what is already known, and explore the interesting artifacts, such as a metal working crucible, found at the site.
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Jacob T. Stewart Building  
Friday, April 12, 2019, 8:30 a.m. – 10:30 a.m.  
**Presenting author(s) is/are underlined and listed first.

Grambling State University

Location: Jacob T. Stewart Building, Room 264  
Time: 8:30 a.m. – 8:45 a.m.

The Study of Magnetization Properties of Aqueous Plasma Synthesized and Commercial Samarium Cobalt Nano Particles

Jumel Jno Baptiste, Deidre Henderson, Chester Wilson, Shengmin Guo, and Hao Wen  
Faculty Mentor: Dr. Naidu Seetala

The motivation of this work is to find a more economical method to generate Samarium Cobalt nanoparticles and to use additive manufacturing methods to fabricate complex geometries of magnets that minimize waste. In this study, magnetization properties of SmCo5 produced by aqueous plasma techniques were compared with commercial powders. These analyses provide insight on phase changes within the material that may affect properties such as magnetization and coercivity in permanent magnets. SmCo5 as synthesized powders exhibited oxidation therefore the powders had to be reduced by flowing dry hydrogen gas at 400°C for 5 hours. The magnetization of the reduced powder is higher than commercial powder but with lower coercivity which may be because of the super paramagnetic nature at nano-size. The commercial powder was used to optimize parameters to make solid samples using arc melt and laser melt techniques. The magnetization of the arc melted particles increased drastically. Also, laser processed melt at 50-watts showed an increase in magnetization, while the 75-watts melt showed little to no change. Unfortunately, the coercivities of both laser-melted and arc-melted samples decreased significantly. This may have been because of oxidation during the melting process and evaporation of some Sm. We plan to further carry out laser heat treatment on the aqueous plasma synthesized and reduced nano-powders using the optimized parameters.

*Work Supported by NSF EPSCoR CIIM award #OIA-1541079.

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Location: Jacob T. Stewart Building, Room 263  
Time: 8:30 a.m. – 8:45 a.m.

The Impact of Economic Environment on Mental Health

Tionna Baker  
Faculty Mentor: Dr. Matthew Sheptoski

Increasing attention is being paid to improving the mental health of American citizens. This presentation will focus on the mental health disparities separating those of high and low socio-economic status. Specifically, is living in poverty a risk factor for mental health issues, Post Traumatic Stress Disorder in particular? To begin answering this question I distributed a fifteen-question survey to individuals in the Grambling area. Results indicate that nearly seventy percent of respondents experienced traumatic childhood events. More specifically, those of lower socio-economic status were more likely to report having experienced traumatic childhood events than respondents of high socio-economic status.
Mental Health in African American Communities: Issues, Challenges, Solutions
Taeko Tucker
Faculty Mentor: Dr. Matthew Sheptoski

Mental health issues are an ongoing concern in African American communities. Surveys were distributed to fifty African Americans, asking respondents about their perceptions of mental health. Research findings in the form of simple descriptive statistics provide a framework of understanding for African American’s conceptualization of factors that affect mental health, such as poverty, racism, lack of information, and trauma. Finally, strategies are laid out with the intent of altering African American’s perception of mental health issues and encouraging individual and community discussion of these critical issues.

Zimbabwe Untapped: The Untold Stories of a Landlocked Country
Tanyaradzwa Magunje
Faculty Mentor: Dr. Steve Favors

This study entails research and a PowerPoint presentation about a country vaguely spoken of in the world yet thriving under the radar. Landlocked between South Africa, Botswana, Mozambique, and Zambia, Zimbabwe serves as The Breadbasket” of the Cradle of Mankind known as Africa. This study attempts to assess how much knowledge college students have of Zimbabwe, and how knowing more about it could impact their mindset about the country. Formally known as Rhodesia, it is recognized for its scenic landscape and diverse wildlife, within parks, reserves and safari areas. On the Zambezi River, Victoria Falls (one of seven natural world wonders) makes a thundering 108m drop into narrow Batoka Gorge. In the past year, Zimbabwe became the first country in world history to have a successful non-violent coup d’état, forcing the ling reigning dictator Robert G. Mugabe, to step down from the presidency. We look at the economic, social, and political organization of the country, dating from historic times in comparison to its modern society.

Secure Messaging App
Gary White
Faculty Mentor: Dr. Yenumula B. Reddy

In these times, it is getting harder and harder to be more secure with anything connected to the internet. Every single bit of information you send can now be seen or intercepted. To overcome this, the development of an app that makes secure messaging a reality in this day and age is needed. The Secure Messaging app that was developed encrypts messages sent inside it and sends it to the messaging app. Then to view the decrypted version, the recipient will need the Secure Messaging app and the password that was used to encrypt it. So, the app does encrypts and decrypts messages using it.
Louisiana Tech University

Location: Jacob T. Stewart Building, Room 264          Time: 8:45 a.m. – 9:00 a.m.
Efficient Simulation of Light Transmission Through Liquid Suspensions and Aerosol
Evan Norris
Faculty Mentor: Dr. Pedro Derosa

Aerosol particles play an important role in the absorption and scattering of light in sea water. A Mie
scattering model can be used to simulate the transmission of light through such media. The primary purpose of
this work is to design an efficient method for simulating light transmission through media. This work involves
the development of an algorithm for the calculation of Mie scattering efficiencies for both spherical and
cylindrical particles and applying them to a Monte Carlo simulation of light transfer through medium. In
order to scale this simulation General Purpose Graphics Processing Unit (GPGPU) programming is
employed to achieve massive parallelism.

Location: Jacob T. Stewart Building, Room 265          Time: 8:45 a.m. – 9:00 a.m.
Creating Empathy for and Understanding of Mental Health Problems through
Illustrations
Emily LaJaunie
Faculty Mentor: Dr. Nick Bustamante

Eighty percent of children with a diagnosable anxiety disorder and 60% with depression are not getting
treatment. I think that one of the reasons so many children, as well as teens and adults, are not receiving
treatment is that empathy is not established when researching mental disorders. There are no pictures or
drawings on the APA’s (American Psychiatric Association) website to show how the symptoms actually affect
those afflicted socially, mentally, and/or physically. So parents may not understand how serious their
children’s symptoms are and won’t bring them into treatment. Also, because Psychology is not a required
class in Louisiana schools, the general population may not be taught the warning signs of mental health
problems, including suicide, and may have a lesser chance of being able to help themselves or their loved
ones. I researched into how the symptoms manifested and created representations of those symptoms with
faceless figures that anyone could reflect themselves onto to better establish empathy and understanding. I
drew the frantic symptoms with red sketchy lines and the subdued symptoms in blue smooth lines to better
express how those afflicted feel. Only the figures are colored in and I darkened certain parts of the figures to
draw attention to those areas and better express the symptoms. To reach and help the most people these
images are currently being turned into a website that I plan one day to be an extension of the APA’s website
and to be used as a resource in Louisiana schools.

Location: Jacob T. Stewart Building, Room 234          Time: 8:30 a.m. – 8:45 a.m.
Evaluation of Sowing Methods to Determine the Role of Hypocotyl Extension in Longleaf
Pine Seedling Development
Nathan Bolner
Faculty Mentor: Dr. Paul Jackson

Sonderregger pine (Pinus x sonderreggeri) is a hybrid species of loblolly pine (Pinus taeda) and longleaf pine
(Pinus palustris) that is culled when noticed during seeding processing and packing in the nursery. Early
indication of the hybrid has been theorized as the extension of the hypocotyl off of the growing media surface.
Although some hypocotyl lift occurs often with longleaf pine, it is unclear if this always leads to a Sonderegger pine. Our research objective was to determine the role container cell color, depth of growing media, and presence of a seed wing stub has on longleaf pine hypocotyl extension. To test this, we sowed equal amounts of seeds with and without wing stubs into RL98 Stubby™ container cells in the 2018 growing season. The following four treatments were tested for both seed types: black container cells filled with media to normal levels, black cells filled only partially with media, white cells filled to normal levels, and white cells filled only partially with media. Our results showed that growing seedlings in black container cells increased hypocotyl extension and reduced root collar diameter. Black cells with less media showed increased hypocotyl lift, and total hypocotyl length was not affected by media depth or container color. Genetic testing indicated that both wingless and winged seeds were true longleaf pine. Our results reveal that container cell color and depth of media may influence hypocotyl extension in longleaf pine.

Location: Jacob T. Stewart Building, Room 264                     Time: 9:00 a.m. – 9:15 a.m.
Myogenic Differentiation of Adipose-Derived Stem Cells
India Pursell, Haley Barnett, Heather Vogel, and Mary Calдорera-Moore
Faculty Mentor: Dr. Jamie Newman

Volumetric muscle loss (VML) is characterized by muscle injury where the tissue is not able to regenerate naturally. This can occur from combat injuries, traumatic injuries such as car wrecks, surgical procedures such as tumor removal, or abnormal muscle conditions such as muscular dystrophies. There are currently no treatment options for de novo muscle regeneration or function for patients suffering from VML. Multipotent stem cells, such as human adipose stem cells (hASCs), offer the most promise in cell-based regenerative therapies due to their self-renewing capabilities, their ability to differentiate into cells found in mesoderm tissues and the ease with which they can be harvested from patients. hASCs have the potential to differentiate towards a myogenic lineage, however, there is currently no differentiation media that can yield more than 15% myogenic success. Here we focus on optimizing a myogenic differentiation media recipes for hASCs. Initially, two myogenic medias were investigated for their differentiation potential at 2, 4, and 6 weeks of hASC culture. Reverse transcription polymerase chain reaction (RT-PCR) was utilized to determine if common myogenic markers, desmin, myf5, myf6, myogenin, mhc, and myod were expressed in hASCs after exposure to these medias. Immunofluorescence using the antimyosin antibody was also used to qualitatively evaluate differentiation. From these assays we identified a media recipe that reproducibly induces myogenic differentiation and we are currently testing different culture environments to continue working towards the creation of functional muscle tissue for clinical application.

McNeese State University

Location: Jacob T. Stewart Building, Room 263                     Time: 9:00 a.m. – 9:15 a.m.
Political Party Strength in the Solid South: Past, Present, and Future
Gordon Boone
Faculty Mentor: Dr. Henry B. Sirgo

The research covers the so-called “Solid South,” referring to a group of the states in the Southern United States known in history for voting solidly Democratic until the 1960s, and then voting Republican beginning in 1964. The findings indicate that, while the South did often vote for Democrats in elections, Republicans did achieve some success in the region, up to and including presidential elections. The work also examines the status of the South in the modern day, and provides information that offers insight as to what the political future of the region will be.
ORAL PRESENTATIONS

Location: Jacob T. Stewart Building, Room 234          Time: 8:45 a.m. – 9:00 a.m.
Role of Age versus Experience in Racing Quarter Horse Performance
Nadia Knox
Faculty Mentor: Dr. Edward Ferguson

Sometimes the average racehorse can cost more money annually, to maintain, feed, and train, than it will earn
in winnings. Having a horse that performs above average, helps to offset the financial disparity. The objective
of this study was to investigate potential influences of race horse age or experience on overall performance.
Data was recorded at Delta Downs Race Track, Vinton, LA, observing 1044 Quarter Horse race horses. Race
horse, in this study, age ranged from two to nine years. Group race experience was classified by zero to two,
three to ten, or 11 or more total races. Using SAS Software, statistical analysis compared variables using chi-
square test. Ultimately, while racehorse age was not significantly associated with finish position, race
experience did have a statistical significant association with finish. Two year old racehorses that ran at least
three races were more likely to finish between 1st and 3rd, with only 33% of the group finishing 4th-10th. As
the horse racing industry continues to explore more effective training programs, future research should
continue exploration of racehorse behavior, to provide further statistical evidence.

Location: Jacob T. Stewart Building, Room 234          Time: 9:00 a.m. – 9:15 a.m.
Effect of Three Novel Powders: Cricket, Pea, and Cornish Hen on 3D-Printed Chatamari
Nila Pradhananaga
Faculty Mentor: Dr. Wannee Tangkham

Chatamari is a traditional Newari rice flour crepe from Nepal. The objective of this study was to evaluate the
optimal formulation of 3D-printed Chatamari on the nutritional, sensory, rheological, and quality properties.
Chatamari was formulated to five treatments: 1) 30% rice flour (RF), 2) 15% RF + 15% cricket powder (CP),
3) 15% RF + 15% pea powder (PP), 4) 15% RF + 15% Cornish hen powder (CHP), and 5) 3.75% RF +
3.75% CP + 3.75% PP + 3.75% CHP. Trained panelists (n=19) evaluated Chatamari for acceptability of
appearance, odor, taste, mouthfeel, moisness, and overall liking by using a 9-point hedonic scale. Each
sample was analyzed for pH, moisture content, color (L*, a*, and b* values), lipid stability (TBARS), aerobic
plate count, Escherichia coli, and yeast & mold. All data were analyzed by using SPSS software with the
analysis of variance test (ANOVA) for a significance level of p<0.05.
Chatamari made with 15% RF + 15% CP obtained the highest scores for appearance (7.10), taste (6.10),
mouthfeel (6.00), and overall liking (6.05). No difference was found in pH value and sugar content for all
treatments. Adding 15% CHP in Chatamari increased (p<0.05) a*redness (10.10), b*yellow (35.80), aerobic
plate counts (Log 4.60 CFU/g), and E. coli (Log 3.83 CFU/g). No yeast & mold were detected in this study.
Incorporating novel powders (cricket, pea and Cornish hen) into 3D-printed Chatamari provide an efficient
alternative for consumers that minimize cooking time and product waste.

Location: Jacob T. Stewart Building, Room 265          Time: 9:00 a.m. – 9:15 a.m.
Numerical Analysis of the Turbulent Flow Characteristics around Submerged Permeable
Breakwaters
William Feltz
Faculty Mentor: Dr. Ning Zhang

A breakwater is a structure used to reduce the energy of waves. When used properly, they can protect coasts
from being affected by waves. One such application is to lessen erosion along Louisiana’s coastlines, where
wave action is strong and is the main source of the erosion. Additionally, the breakwater can
change how sediments are transported, and allow for the deposition and accumulation of sediment at target
areas. This research aims to give a numerical comparison of the effectiveness of three different breakwater designs, and reveal the turbulence characteristics downstream of the breakwaters. Three breakwaters are examined: a solid panel without any holes, another panel with one hole, and a third panel with three holes. These breakwaters are expected to be placed on the banks of various water bodies in coastal Louisiana, to protect the surrounding wetlands from coastal erosion and land losses. The designs aim to reduce the wave action from the water bodies, while the holes on them allow the sediments to pass through and deposit on the wetlands downstream. To run the simulations, the CFD software ANSYS FLUENT was used. The numerical results were compared to experimental data, and the good agreement proves the accuracy of the results. The effects of different wave patterns on the downstream turbulence were also analyzed and discussed in this study.

Location: Jacob T. Stewart Building, Room 263   Time: 9:15 a.m. – 9:30 a.m.

The Effect of Social Media on Politics
Jacob McCaughey
Faculty Mentor: Dr. Henry B. Sirgo

This paper examines the impact of social media on modern politics, especially focusing on the 2008 presidential election, the 2016 presidential election, and the 111th Congress. The 2008 election was one of the first where social media played such an important role. The 2016 presidential election set the bar even higher. The 111th Congress shows how the influence of social media also infiltrates the legislature. This paper also investigates what exactly social media are, what exactly fake news is, and why they are important. Data have been pulled from various databases and sources in order to form accurate assumptions. With all of this information, this paper can confidently answer how much of a role social media play in modern politics.

Nicholls State University

Location: Jacob T. Stewart Building, Room 266    Time: 9:45 a.m. – 10:00 a.m.

Gold and Wit: Congreve, Jonson, and The Evolving Ideas on Women
Jones Caitlin
Faculty Mentor: Ms. Elka Staley

This essay explores the portrayal of woman in comedic dramas during the Age of Enlightenment and the Renaissance. Between the two eras, we witness a shift in opinion on what a woman’s place was, what was expected in that role, and what makes up “the ideal woman.” This is shown in the contrast between Ben Jonson’s Volpone and William Congreve’s The Way Of The World, and how their “ideal” female characters, Celia and Millament, reflect mindsets from their era, shifting senses of humor, as well as shifting opinions on women. In turn, we also discuss the perspectives of Jonson and Congreve as writers and how their characters respond to each other.

Jacob T. Stewart Building, Room 265                             Time: 9:30 a.m. – 9:45 a.m.

Gender Disparity in Information Technology: A National and Local Level Investigation
Tristen Gros
Faculty Mentor: Dr. En Mao

The gender disparity in the Information Technology (IT) field has persisted over the years. According to the U.S. Bureau of Labor Statistics, in 2018, based on over 3.3 million employed in IT related fields, only 27.2% were women (Employed, 2018). As one of the fastest growing fields, IT job demand is strong. In this research,
we seek to find why there are so few women in IT. This study utilized three research methods. First, we conducted literature research on the gender disparity issue at the national level in IT. Second, we analyzed Nicholls State University graduates from 2010 to 2018 using Microsoft Excel and Tableau. The analysis revealed shockingly low graduation statistics—out of 10,254 graduates, 1.68% over those 8 years earned their degree in Computer Information Systems; 0.66% of those students being women. Despite the fact that the technology industry is rapidly growing, needing more people with IT backgrounds, the number of students enrolled in this field has not significantly increased over the years. For our final research method, a combination of CIS graduates in the workforce and current students were interviewed to shed light on the gender disparity issue. This is now not only a problem where women are underrepresented—this is a problem where more IT talents are needed. With these findings, we hope to open the eyes of those that are unaware, including Nicholls administration and area high schools, of this issue and inspire more students, women especially, to consider this field as a career option.

Literature Cited

Comparing Conventional Topographic Surveying to Photogrammetric Methods Using small Unmanned Aerial Systems (sUAS)
Brennon Dardar, Frank Yrle, and Dr. Gary LaFleur, Jr.
Faculty Mentor: Dr. Balaji Ramachandran

The emergence of small Unmanned Aerial Systems (sUAS), otherwise known as drones, is impacting surveying profession by increasing productivity and quality of data. The main objective of the study is to evaluate the effectiveness of sUAS as a topographic surveying method by comparing conventional field methods to photogrammetry derived 3D point clouds. In addition, other existing technologies such as Real-Time Kinematic (RTK) Global Navigation Satellite System (GNSS) surveying, Terrestrial Laser Scanning System (TLS), and Light Detection and Ranging (LIDAR) are also evaluated. The study area comprised of the southeastern 200 ft. of Reach F, Terrebonne levee system part of the Mississippi to the Gulf, Louisiana. The methodology involved a 6.1m (20ft.) reference grid created along the levee alignment which included critical points (top, shoulder, and toe) on the levee. The grid points were used to collect conventional differential leveling elevations and RTK-GNSS derived orthometric heights. Point clouds were directly generated from a TLS and sUAS equipped with a LIDAR unit. A point cloud was extracted from a sUAS equipped with a Prostar camera. Triangulated irregular network (TIN) was created for all topographic surveying methods and used to derive volumetric quantities. The results show a 21.5m3 volumetric difference when comparing the photo derived sUAS to conventional differential leveling. The photo derived point cloud showed a ±2.3 cm horizontal and ±0.4 cm vertical precision at a 95% confidence level on checkpoints used. It can be concluded that sUAS technique is a more accurate and cost-effective topographic surveying method.

Preventing Delay of Care by Improving Access to Patient Supplies on Telemetry Units
Victoria Smith
Faculty Mentor: Ms. Meryn Olivier

Delays in patient care have plagued the world of healthcare for many years. Although, efforts have been developed to reduce this; the problem continues and negatively impact patient outcomes. According to the Joint Commission (2015), a delay in treatment is when a patient does not get a treatment—whether it be a medication, lab test, physical therapy or other medical treatment—that has been ordered for them in the time frame in which it was supposed to be delivered (p. 1). Examples of delays in patient care include the
inaccessibility of medical supplies, prolonging lifesaving medications or equipment.

Analysis of current processes at Hospital X revealed the Telemetry Unit being out of close proximity to the Critical Care Unit (CCU) and Patient Supply Department (PSD), thereby reducing ready access to critical supplies. Although patients are stable upon transfer from the CCU, some require re-intubation, re-insertion of chest tubes, NG tubes, and administration of lifesaving medications.

Time is a critical component of saving patient lives and without supplies readily available, oxygenation and perfusion are lost, allowing potentiated medical conditions to progress, leading to possible death. As stated by The Joint Commission (2015), “from 2010-2014, 522 sentinel events were due to delays in treatment; 48 of these events resulted in patient death, 77 resulting in permanent loss of function, and 24 resulting in unexpected additional care or extended stay (p.1).”

A change proposal on access to critical supplies on units will reduce negative outcomes to both patients and hospitals.

Jacob T. Stewart Building, Room 267     Time: 9:30 a.m. – 09:45 a.m.
A Modernist Home for Holly Golightly: Fabricated Glamour to Functional Minimalism
Krista Butts
Faculty Mentor: Dr. Scott Banville

This presentation argues how Holly Golightly in the 1961 film Breakfast at Tiffany’s, through her wardrobe and actions, is a modernist in her constant need to mask herself through fabricated glamour and in how she becomes her most functional and autonomous when she is moving towards her most minimalist self. Snippets of Holly’s origins and almost-true self come and go but the main identity Holly assumes is that of a glamour girl doing anything to protect herself from her past and get ahead in the treacherous modern city. She displays a modernist primitivism by continuously shielding her identity with a variation of glamorous masks to protect herself and all of the versions of her identity. In relation to Judith Brown’s Glamour in the Six Dimensions: Modernism and the Radiance of Form, Holly can be seen as modernist in her abstract, untouchable, and falsely glamourous self. However, Holly displays signs of minimalism, a trait of modernism, in her wardrobe choices. With these subtle changes in wardrobe, she becomes more functional and closer to creating a true identity and home for herself in the modern city. As Marshall Berman argues in All that is Solid Melts into Air: The Experience of Modernity, making a home in modernist chaos is an ideal characteristic of. Holly thus eventually abandons her glamorous fabrication of self in the search for a minimalist sense of belonging: she tries to create a modernist home.

Northwestern State University

Jacob T. Stewart Building, Room 234     Time: 9:30 a.m. – 9:45 a.m.
Effects of Familial Relationships on Rape Myth Acceptance and Feminist Attitudes in College Students
Sarah LaJaunie
Faculty Mentor: Dr. Margaret E. Cochran

Rape myth acceptance and feminist attitudes are linked and can affect behaviors toward victims of sexual assault and women in general. The present study examines the relationship between familial relationships and scores on the Illinois Rape Myth Acceptance Scale (IRMA), Attitudes Toward Male Rape Scale (ATMRS), and the Social Roles Questionnaire (SRQ-GT and SRQ-GL). Three hundred and ninety-nine students (310 women, 89 men) completed a survey. As expected, women scored significantly lower on each subscale of IRMA than men (p < .001), showing lower female rape myth acceptance. Men scored significantly higher on the ATMRS
ORAL PRESENTATIONS

(M = 20.98, SD = 8.27) than women (M = 18.02, SD = 7.35; t131 = 3.050, p = .003), showing higher male rape myth acceptance. Women reported stronger feminist attitudes as they scored significantly lower on the SRQ-GT (M = 6.43, SD = 8.014) than men (M = 9.69, SD = 9.43; t27 = 2.962, p = .004), and on the SRQ-GI, they (M = 23.39, SD = 14.59) scored significantly lower than men (M = 31.22, SD = 16.98; t28 = 3.852, p < .001). Familial relationships (siblings and children) had no significant effect on any of the measures. The lack of significance of familial relationships may suggest that constant exposure to those of the opposite gender is not great enough to alter attitudes about rape myths or feminist attitudes. People may need to be directly educated on these issues to overcome their misinformed and prejudiced attitudes.

Jacob T. Stewart Building, Room 264

Characterizing the TNF receptor associated factor (TRAF) Amblyomma americanum homolog in immune response to bacterial infection

Taylor Burch
Faculty Mentor: Dr. Lindsay Porter

Native to Louisiana, the lone star tick, Amblyomma americanum, poses a threat to public health by transmitting bacterial pathogens including southern tick associated rash illness (STARI or master’s disease) and human monocytic ehrlichiosis. However, little is known about how this tick interacts with these bacteria. Previously, our lab determined transcripts expressed in A. americanum only after E. coli infection. In this study, we investigated one of these transcripts, putatively annotated as tumor necrosis factor receptor-associated factor (TRAF). Homologs of TRAF in other invertebrates, including ticks, have been validated as serving immune-related roles. Using BLASTX, we determined the correct reading frame of our 728 bp partial transcript and identified TRAF homologues in 39 other arthropod species with identity to our sequence at values up to 36%. We further determined the expression timeline of this gene during infection by injecting ticks with E. coli and sampling at 3, 6, 12, and 24 h post-infection. Our data show expression of this gene occurs and ceases by 3 hours and 6 hours, respectively, post-infection, suggesting an involvement of TRAF in early response to infection. To determine the relative importance of this gene in overall control of bacterial infection, we cloned a target portion of the transcript into the dsRNA expression vector for future RNAi silencing. Resolving the tick immune response to infection with non-pathogenic bacteria will allow an understanding of how this response differs during infection with human pathogens and will identify potential molecular targets for ticks and tick-borne disease control.

Jacob T. Stewart Building, Room 264

Initial Results in the Drug Design of Influenza Antivirals

Shelby Riedel
Faculty Mentor: Dr. Massimo D. Bezoari

The influenza virus continues to be a hazard to public health. Globally, 290,000-650,000 deaths are associated with influenza every year. Only four flu antivirals are currently FDA approved. Three focus on inhibiting the neuraminidase enzyme of the viral protein coat, though antiviral resistance mutations have occurred in circulating strains of influenza A, particularly after the 2008-2009 H1N1 pandemic. These mutations tend to be specific to certain common antivirals such as oseltamivir (Tamiflu®) and have not spread to all strains, but new antivirals and antiviral strategies are needed before the next influenza pandemic occurs. This research uses ligand-based virtual screening to examine the ZINC15 database for compounds that might mimic influenza neuraminidase’s natural target on human cells, α(2→3)galactose and α(2→6)galactose-linked sialic acids. Such compounds have the potential to be efficacious inhibitors neuraminidase and, therefore, of flu. Computational docking studies are identifying and comparing the binding of sialic acid and screened ligand structures to neuraminidase proteins with and without antiviral resistance mutations. Initial results reveal potential alternate binding sites in neuraminidase proteins with mutations that make them resistant to current antivirals, and indicate new compounds with possible inhibitory activity.
A Defense of the Holy Trinity using the Formal Distinction
Brandon Granger
Faculty Mentor: Dr. Rondo Keele

In recent times, active participation in the Christian religion has been on the decline. If the church were to ever rectify this situation, it would need to make itself appealing to the modern person. It could achieve this to some degree by making itself seem more consistent or logical. The Holy Trinity is often regarded as an obvious contradiction within the Christian faith. Specifically, how can God be one and three at the same time? However, it is central to Christianity and cannot be discarded. Therefore, a sound logical basis and explication of the Trinity would serve the church in making the core belief more appealing. Using the formal distinction, a logical device discovered by John Duns Scotus, the Holy Trinity can be explicated in a number of ways that make the belief more approachable. The formal distinction will be introduced in the context of the problem of universals, a topic of philosophical debate dealing with the metaphysical nature of reality. Secondly, arguments by William of Ockham will be used to test the logical strength of the formal distinction. Finally, some historical context for the Trinity will be given, including different Trinitarian theories from the Dominican and Franciscan orders. By using historical and philosophical background, the formal distinction can be made into an effective tool to explicate the Trinity in a consistent manner.

Not Holy, Not Roman, But Definitely the Empire
Jacob Ware
Faculty Mentor: Dr. Rondo Keele

This paper argues that the Ottonian and early Salian dynasties in the 10-11th centuries should be considered to be a resurgence of the Western Roman Empire. The Ottonian (919-1024) and early Salian Dynasties (1024-1056) were the successor dynasties to the Karolingian Franks in the Kingdom of East Francia. These dynasties incorporated the Kingdoms of Italy and Arles into the Kingdom of East Francia and became suzerains of the Papacy at Rome. The dynasts, sans the founder, received the imperial honor of the Empire from the Papacy. This Kingdom, by these virtues, became the Roman Empire in the West reborn. My argument uses four criteria to define the Kingdom of East Francia as the Western Roman Empire and thus make it distinct from the Karolingian Empire that preceded it and the Holy Roman Empire that followed. Specifically, this paper examines the recognition of the Western Empire by the Byzantine Empire, the dominance over and recognition by the Papacy, and its firm control over Italy and Rome. By these criteria the Karolingian Empire and the Holy Roman Empire are excluded, and only the period from 951-1024 can be considered to be the Western Roman Empire.

The Behavior of Fractions with Prime Denominators
Jonathon Villareal
Faculty Mentor: Dr. Richard Devault

Much of mathematics is the observation and manipulation of different patterns that can occur when dealing with different sets of numbers, shapes, etc. One of the most peculiar patterns that can be observed is how the decimal expansions behave whenever there is a prime denominator. Using circle diagrams that are generated by the fractions of these prime numbers one can observe how full period primes behave in arbitrary bases. After further studying, one can then observe that the patterns that occur with full period primes, occur with prime denominators in general under certain conditions. Using this information, one can prove that different summations in regards to the circle diagrams generated by these prime denominators under strict conditions are divisible by the prime denominator.
Southeastern Louisiana University

Jacob T. Stewart Building, Room 234

Time: 09:45 a.m. – 10:00 a.m.

Chronic Exercise and Traumatic Stress: Altered Nociception and Cognition
Raini Blackwell, Sarah Mozingo, and Ashley Breechen
Faculty Mentor: Dr. Brandon Baiamonte

PTSD is a common disorder that continues to increase in prevalence throughout the United States. Because of this and its high associated healthcare costs there is an eminent need for effective and cost-efficient treatments. Exercise has been shown to reduce PTSD symptomology related to anxiety in both human and animal models. However, the effects of exercise on PTSD-induced hyperalgesia and cognition are less known. Furthermore, even less is known about the effects of traumatic stress on learning during stressful conditions. The purpose of this study was to examine the effects of voluntary exercise on nociception and cognition in a PTSD mouse model. Subjects consisted of two separate groups of C57B/6 mice consisting of twenty-four mice per group (forty-eight total) with equal male to female ratios selected for testing. The primary goal of Group 1 was to examine the effects of voluntary exercise on nociception utilizing the Hargreaves test following a traumatic stressor. Group 2 was used to determine the effect of voluntary exercise on learning and memory in the water maze and novel object recognition task following a traumatic stressor. Results indicated a hypoalgesia effect of chronic exercise before and after the traumatic stressor. In addition, preliminary data suggests chronic exercise increased learning in the water maze and improved memory in the novel object recognition task following a traumatic stressor. In conclusion, our data provides support for implementation of a chronic exercise regimen to reduce PTSD symptomology following exposure to a traumatic stressor.

Jacob T. Stewart Building, Room 267

Time: 10:00 a.m. – 10:15 a.m.

Intrinsic and Extrinsic Motivation and College Success
Anna Crawford
Faculty Mentor: Dr. Suzanne Booth-LeDoux

In light of the many complexities (e.g., successful time management, academic preparedness, financial considerations) associated with earning a college degree, understanding the role of student motivation in managing these demands is exceedingly valuable in terms of predicting student retention and success. Previous research supports the notion that intrinsic motivation (i.e., motivation via internal factors such as desire for personal growth and knowledge) and extrinsic motivation (i.e., motivation via external factors such as money or grades) do impact student success. That said, extant research is limited with regard to the role of motivation for specific populations such as first generation college students, who are potentially more vulnerable to challenges associated with the pursuit of higher education. As such, the present study is a replication and extension of previous literature such that the focus is on elucidating if being motivated to earn a certain grade or being motivated to learn in general changes student success outcomes. Further, specific consideration will be given to the role of student status as a first generation college student. The participants for the present study are college students enrolled at a university in the southeast region of the United States who complete a web-based survey. It is hypothesized based on previous research that grade motivated (i.e., extrinsically motivated) individuals are more likely to consider quitting school than intrinsically motivated individuals. Recommendations based on study findings are offered for students and educators.

Jacob T. Stewart Building, Room 264

Time: 09:45 a.m. – 10:00 a.m.

Insights into 2,2'-bipyridine formation via phosphorus extrusion
Andrew Belgard
Faculty Mentor: Dr. Benjamin Wicker
Diphenyl-bis (2-pyridyl) phosphonium (Dipyphos) bromide salt was used in an attempt to synthesize 2,2’-bipyridine by phosphorus extrusion. For the reaction, temperature, time, solvent, Lewis acid, and nucleophile were varied in order to explore their effects on the yield of 2,2’-bipyridine. Proton and phosphorus NMR were used to determine the formation of products. HPLC was used to find the yield of 2,2’-bipyridine. Cobalt chloride hexahydrate seemed to be the most successful with a 20% yield of the Lewis acids. Bulkier nucleophiles like triethylamine also looked promising with a yield of 25%. It looks like this reaction follows a nucleophilic attack on the phosphonium cation, which creates a five-coordinate intermediate. The intermediate then extrudes 2,2’-bipyridine if both pyridyl rings are in the equatorial position. The formation of 2-pyridyldiphenyl phosphine oxide appears to accompany the synthesis pathway.

Jacob T. Stewart Building, Room 267                Time: 09:15 a.m. – 9:30 a.m.
What Makes the ME in Peer Mentoring?
Emma Beckers
Faculty Mentor: Dr. Gerlinde Beckers

Undergraduate student researcher shares the findings on self-efficacy and motivation of peer-mentors participating in the Lions Connected program, a university-based, inclusive, comprehensive transition, post-secondary (CTP) program for students with intellectual disabilities. Inclusive comprehensive transition and post-secondary programs rely on peer mentors to support and successfully include students with Intellectual Disabilities in all aspects of college life. Peers are utilized in a wide range of shared opportunities and experiences; for example, peers may provide academic-related supports by serving as academic mentors or social-related supports (exercising, eating, and attending recreational activities) by serving as social mentors. Along with academic courses, students with Intellectual Disabilities and their peer mentors participate in university-based vocational opportunities such as in the library, athletics, Head-Start and the Lab School. Research supports that peer mentoring positively influences career development, transition to employment, and psychosocial function, including friendship development and social skills, which will better enable students with Intellectual Disabilities to become contributing members of society. The research consists of both survey and interview data as well as practical application providing a general understanding of why students become peer mentors. Participants will be able to interact directly with the undergraduate researcher who is also a peer mentor.

Columbia: Neglected Personification of America
Dovie Renee Milstead
Faculty Mentor: Dr. Jeffrey Anderson

Lady Columbia represents the compassion, justice and strength of the people of the United States of America. Her origins and physical characteristics descend from eighteenth-century perceptions of Greek and Roman deities. As such, she symbolizes the role of women not just as mother figures but as shields against foreign powers. As is clear in artists’ depictions, the image of Columbia draws from—but is nevertheless distinct from—similar figures, such as the Roman goddess Minerva and Britain’s Britannia. Columbia appears mostly as propaganda in political cartoons. In this role, she takes on different physical appearances to match the times and events that the artists’ addressed. Though a fictional character, she holds sway over the public in and out of government. Moreover, there is a clear distinction in role between similar characters, such as Uncle Sam, and Columbia, not just in gender, but in what parts of the American system they represent. There are parallels and contrasts between her and the statue of Liberty in their physical
representation and the role they play as symbols of America. In fact, Liberty sometimes appears as an alternate name for Columbia. Hopefully, Columbia will one day return to the spotlight as the new image of America, for she holds the ideas and values of the people, the essence of what the United States should be.

Location: Jacob T. Stewart Building, Room 266  
Time: 8:45 a.m. – 9:00 a.m.

Comic Relief from Reality
Chloe Danielle Howard

Faculty Mentor: Ms. Hannah Meredith

Most individuals think of comic relief as something that is inputted into a scene of a movie or book to relief tension or anxiety in both the audience and the characters. In short, most think of this term as applying to fictional works. In the broad sense, this is true, but most individuals fail to make the connection between trickster figures and comic relief and the connection of trickster figures with their very real audience. Modern day trickster figures still function in much the same way as traditional tricksters, but they do not provide the same meaning to modern audiences as older trickster figures did. For example, in Native American trickster tales, trickster Coyote created man, journeyed to the land of the dead, and even pranked a man by turning into a woman and marrying him. Trickster Coyote’s powers provided a lesson through both serious and comical times in his various stories. In African-American trickster tales, the comic relief of the stories is provided as a break from the horrible reality of being slaves. These trickster tales provided stories of how a slave tricked his master or was tricked by other slaves. The key difference between Native American tricksters and African American tricksters is that the former retained powers to be able to pull tricks, but the latter only has wits about him. What is similar about these two groups of tales is that in both cultures, tricksters provide a break from reality in the form of comic relief. The same can be applied to European trickster tales as well. The comic relief provided by tricksters achieves more than just entertainment; it provides a break from the harsh reality from things like poverty and slavery.

Jacob T. Stewart Building, Room 266  
Time: 10:00 a.m. – 10:15 a.m.

Black, White and Everything in Between
Sachin Shrestha

Faculty Mentor: Dr. Mary Adams

In 'Almost a Woman', Esmeralda Santiago provides readers with multiple instances where she feels stuck between two very different things. Whether it is choosing to be Americanized or remaining Puerto Rican or being a ‘puta’ who takes advantage of weak men or a ‘pendejo’ who believes everything a man says. Santiago and I have similar experience when it comes to life in the United States. We are both “Other” in a myriad of ways: [our] darker skin, [our] old fashioned and worn-out clothes, [our] accent, and [our] problems with English” (Santos-Phillips 214). However, being Asian, the one that I related to the most with Esmeralda is her struggle with being a person who looks neither black nor white, but rather somewhere in the middle. In my paper, I will be expressing my own experiences regarding this and discussing why people might differentiate people based on skin color.
**University of Louisiana at Lafayette**

Jacob T. Stewart Building, Room 267  
**Time:** 8:30 a.m. – 8:45 a.m.

**Trends in Funding for Nonprofit Arts Organizations: A Regional Study in the Acadiana Area of South Louisiana**

Malika Taylor  
Faculty Mentor: Dr. Lise Anne Slatten

Nonprofit organizations (NPOs) have existed as a meaningful part of society for years and have been established to help and support various causes. These organizations provide a variety of services for people who are homeless, offer discount clothing and food for those in need, organize outlets for social and community engagement, and much more. NPOs provide various opportunities for community involvement, but in recent years the government and other types of donors, have been pressured to evaluate the funding for these groups. Arts organizations have not been immune to this trend. Recent studies have found that museum funding has decreased at the federal level. Museums also receive funding from various sources, but it does not guarantee a consistent income. This research will analyze recent funding trends for various 501c3 arts NPOs to categorize their sources of funding over a three year period. Analysis will be conducted on the funding trends and potential causes for increases or decreases. Information will be obtained from recent IRS Form 990 filings for arts organization in the Acadiana region of south Louisiana.

Jacob T. Stewart Building, Room 267  
**Time:** 9:45 a.m. – 10:00 a.m.

**Assessing Efficacy of Stop the Bleed Education**

Julia Daigle  
Faculty Mentors: Dr. Bruce Felgenhauer and Dr. Christy Lenahan

Stop the Bleed is a national grassroots, education campaign effort that focuses on empowering the public to recognize and control life-threatening bleeding emergencies. The White House, Homeland Security, and the American College of Surgeons - Committee on Trauma, and the Hartford Consensus have endorsed the program since 2015. Stop the Bleed is a call-to-action plan to train the public on hemorrhage recognition and control until medical personnel are available for management. An additional initiative is to place bleeding control kits in every public place. This project will focus on educating 80-100 professionally trained and lay persons by utilizing handouts and presentation information provided by the Stop the Bleed campaign. The education process involves the use of material focused on hemorrhage recognition, while the second component of training involves active and return demonstration of tourniquet use, wound packing with gauze, and hemostatic agents for major bleeding control. A retrospective study evaluating pre- and post-questionnaires will be utilized to assess knowledge of bleeding control education. The goal of this project is to prove that the Stop the Bleed campaign initiative can effectively train individuals regardless of current knowledge level. The significance of this study is to prove efficacy and support training of the public in responding to natural and unintentional disasters that result in uncontrolled bleeding.
Can Mental Health Labels Change the Way People Think About Someone with Anorexia Nervosa?
April Pruitt
Faculty Mentor: Dr. Brooke Breaux

Previous research suggests that the ways in which we describe people experiencing mental health issues can affect the way that others think, feel, and behave toward that person. Although mental disorders, such as schizophrenia, have been well explored (e.g., Read, Haslam, Sayee, & Davies, 2006), we were interested in investigating the mental health labels that are often associated with anorexia nervosa. More specifically, we ask whether the label selected to describe someone who meets the DSM-5 criteria for anorexia nervosa really affects how others perceive that person. We selected the labels mental illness, mental disorder, anorexia, and issue and conducted an online experiment in which college students were asked to read a story written by a female college student about her female roommate. Participants were then asked to answer questions posed by the female college student, and their answers to each question were analyzed using a between-subjects ANOVA. Even though the evidence suggests that not all perceptions were influenced by the particular label, there were several questions in which responses differed systematically depending on the label being used. Based on this data, we argue that a simple difference in label can change the way people think or feel about a person being described by that label; however, these differences are sometimes subtle and were not found in response to every question.

Demons Within: Shared Perspectives between Undergraduates and a Local Mass Shooter
Kyla Zimmerman
Faculty Mentor: Dr. Emily Sandoz

It is difficult for most people to imagine the kinds of ideas that would support someone committing horrific violence against strangers. Yet, these crimes occur in the U.S. with a fair degree of regularity, suggesting the sentiments involved may not be all that bizarre. The current study sought to explore how a sample of undergraduates might endorse the ideas of a local mass shooter, and how that endorsement might correlate with measures of psychological well-being and prosocial behavior. Statements were harvested from the personal diary of John Houser. Undergraduates self-reported their agreement with his statements, and completed questionnaire assessments of psychological flexibility, self-compassion, and sexism. A significant number of undergraduates endorsed the diary statements, which tended to fall into two primary categories: criticisms of America and criticisms of minorities. Patterns of correlations suggested that both factors were associated with psychological flexibility, self-compassion, and sexism in distinct patterns.

The Work of Bradford Young
Darian Martin
Faculty Mentor: Mr. John Hamp Overton

This oral presentation will focus on the work and style of Cinematographer Bradford Young. It will discuss his life, education, and the number of films he has worked on. His use of lighting and color within some of his notable films will be analyzed and examples from the movies themselves will be presented.
RNA Binding Protein Prediction using machine Learning Techniques
Reecha Khanal and Avdesh Mishra
Faculty Mentor: Dr. Md Tamjidul Hoque

Motivation: RNA-binding proteins play important roles in many biological processes like gene regulation, protein synthesis and sequence encoding during both transcription and post-transcription processes. Identifying RNA-binding proteins from only sequence information is an incredibly challenging problem in computational biology. Although, existing literature show significant progress in the field, the problem is still distant from being fathomed. In this work, we present a machine learning technique to predict RNA-binding proteins, based on comprehensive set of features encoded from protein sequence. To develop a robust classifier, we encode the protein sequence with important features such as physiochemical properties, evolutionary information, monogram, bigram and more.

Results: The comparative results of the proposed method with the state-of-the-art methods based on 10-fold cross-validation, independent test and case studies show that the predictor can correctly predict a greater number of RNA-binding and non-RNA-binding proteins. It also outperforms several state-of-the-art methods of RNA-binding protein prediction. Therefore, the proposed predictor can be applied for prediction of RNA-binding proteins only from sequence.

Mathematical Literacy and the Secondary Student
Adam Poyner, Dr. Thomas Wright, and Dr. Patricia Austin
Faculty Mentor: Dr. Cynthia Ybos

Public education is a continually evolving field, with new research, policies, and practices explored by professionals who are driven to provide America’s youth with high-quality education. Research literature since 2000 has highlighted the importance of disciplinary literacy and its unfortunate neglect in a majority of secondary classrooms (Shanahan & Shanahan, 2008). Students who are literate in a particular discipline, such as math, view themselves as fluent in the language of mathematics, comfortable with reading, discussing, and practicing complex mathematical concepts while using appropriate vocabulary (Buehl, 2017). As seasoned professionals and novice educators consider the role of disciplinary literacy in their own classrooms, it is necessary to ponder the practices that are implemented within classrooms. Do they align with current research on the matter? What role do motivation and culture play in the process of becoming mathematically literate? How do these ideas influence classroom literacy practices? These are the central questions that have guided the construction of this research study, which will seek to examine the phenomena that occur within a classroom as teachers implement practices which promote and teach mathematical literacy. The exploratory nature of this study dictates that no judgement on the effectiveness of observed and discussed instructional strategies is considered, rather, a comparison of the latter with those strategies recommended by current educational researchers and literature. Interviews and classroom observations will work in tandem with a review of the current publications that address the areas of motivation, mathematical literacy, and culture.

Dj Soul Sister a time to remember
Jaszmine Foucha
Faculty Mentor: Mr. Laszlo Fulop

This documentary film was created to show case one of New Orleans own female Dj’s. The documentary takes the viewer on a night in the life of Dj soul sister and uncovers her thoughts on becoming a female Dj.
Human Serum Albumin Nanoparticles for Treatment of Hepatocellular Carcinoma
Mina Hibino, Kelley Núñez, and Paul Thevenot
Faculty Mentor: Dr. Matthew A. Tarr

As of 2016, hepatocellular carcinoma (HCC) is the 5th leading cause of cancer-related deaths in the US. The only curative options are a liver transplant or a resection, which are extremely invasive surgeries that can have recurrence rates as high as 70%. There is a great need for alternative treatments to combat this aggressive destructive cancer. The goal of this project is to develop a non-invasive therapeutic treatment to target HCC cells using human serum albumin particles (HSAPs). The nanoparticles were prepared using human serum albumin (HSA), the most abundant protein in blood. Being naturally biocompatible, they are unlikely to be rejected by the body. Particles could be synthesized to house gold nanorods (AuNRs) or chemotherapeutic drugs. These nanocomposites can be injected directly into the tumor site, and the encapsulated drugs will attack the tumor during natural release by protein degradation via cell ingestion. Simultaneously, cytotoxicity can also be induced by hyperthermal effects with near-infrared laser irradiation to heat the AuNRs within the HSAPs. This combinatorial treatment approach will be tested on immortalized HCC cell lines as well as on patient-derived lines. These patient-derived lines established from HCC lesions acquired from resected patients will better reflect genomic modifications within multiple patients with HCC compared to immortalized cell lines.
**Water Quality Monitoring: A Community Service Project**

**Dr. Waneene Dorsey**

The City Park of Grambling, LA is a public recreational site that has picnic tables, a covered pavilion, and sidewalks surrounding a large freshwater pond. Local citizens and students from Grambling State University (GSU) use the area for cookouts, fishing tournaments, and entertainment. Safe recreational waters require regular management interventions to ensure public health and safety. Each year, the GSU-Water Quality Management class participates in a community service learning activity that serves the local community and supports the existing water quality management course. The water monitoring project has emerged because of the increased public demand for healthy and safe freshwater ponds. In addition, this service learning activity facilitates water quality awareness for the University and local community. In keeping with the strategic goal of the United States Environmental Protection Agency (U.S. EPA) to have clean and safe recreational waters, GSU students monitored the City of Grambling, LA park pond during the month of September 2018. We hypothesized that the water parameters were in tolerance ranges. After testing, students compared dissolved oxygen, pH, nitrate-nitrogen, phosphate, temperature, and turbidity parameters with the U.S. EPA guidelines for freshwater waterbodies. A letter was sent to the Mayor of Grambling, explaining that the water parameters were in tolerance ranges. The Mayor of Grambling posted these findings in City Hall to inform the citizens that the overall environment of the city park pond was great for aquatic life and sport fishing. This community service learning activity facilitates public awareness and information for local citizenry.

**Community Game Changers Through Technology**

**Dr. Kevin Sly, Kyra Broussard, DeJane Davis, A'Shunte Epps, Amaya Major (Community Collaborator)**

The Service Learning project is Microsoft Software Business Application Assistance Program where students learn to develop management skills as they work individually or in teams to help assist other individuals in applying one of more of the various Microsoft software business applications to include Word, PowerPoint, Advanced PowerPoint, Excel, Access, ExceleratedAccess and Visual Basics. This is an academic assistance activity which is designed to increase individualized academic, social, emotional, and business skill sets for students and community members. It also helps the student to develop critical thinking skills, technical skills, soft skills and team work. Throughout the semester, students are required to help at least ten individuals to obtain service learning points. This activity provides vital work-related skills needed in today’s work environment. This activity allows our students to fulfill the Service Learning component for the course.

**Students will demonstrate:**
- QuicPic Development
- ExceleratedAccess
- Menu Engagement
- Drop Menu
Location: Jacob T. Stewart Building, Room 260  
Time: 8:45 a.m. – 9:00 a.m.

**Straight Talk**
Ms. Evelyn Jenkins, Ms. Cassandra Peoples, and Dr. Gayberyl Wesley

*Straight Talk* is a project within the School of Social Work that offers occasions for secondary school children to participate in activities aimed at helping them to positively develop emotionally and socially. The School of Social Work and Lincoln Preparatory School partnered to provide middle and high school students an opportunity to learn from students in the School of Social Work’s BSW Program. BSW students presented a series of workshops to students attending Lincoln Prep focused on helping them develop the attitude and interpersonal skills needed to successfully complete high school and be prepared to further their education and/or training.

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Location: Jacob T. Stewart Building, Room 260  
Time: 9:15 a.m. – 9:30 a.m.

**Connecting Literacy Assessment to Reading Instruction: The Diagnosis-Remediation Process**
Dr. Loretta Jaggars

This presentation is designed to: 1) First, describe the Five Essential Components of the Effective Teaching of Reading; 2) Identify various Assessments (both Formal and Informal methods) that may be used to identify specific Reading/Literacy skill needs; 3) Demonstrate various strategies and resources that teacher candidates have identified for strengthening or remediating selected Reading/Literacy skills based on the Assessment results; and 4) To showcase the candidates’ research projects that demonstrate the “connection between Literacy Assessment and Reading Instruction”.

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Location: Jacob T. Stewart Building, Room 261  
Time: 9:00 a.m. – 9:15 a.m.

**Operation Tiger Lift**
Alexis White  
Faculty Mentor: Dr. Ellen D. Smiley, and Dr. Rory L. Bedford

*Hurricane Harvey caused widespread devastation to a plethora of families in Houston, Texas. Several emergency teams came together to assist with relief but there was still much to be done. Through Grambling Graduates, Angielee Rhyme, Rev. Lamon Atkins and New Progressive Baptist Church; the Earl Lester Cole's Honor's College was able to identify Grambling State University Alumni who were affected by the hurricane. Many lost their homes and all of their belongings. So, we chose to help our Alumni through this devastating time. The Earl Lester Cole's Honor's College, “Operation Tiger Lift”.*

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Location: Jacob T. Stewart Building, Room 259  
Time: 9:15 a.m. – 9:30 a.m.

**Redesigning the Organizational Structure of a Small Local Business.**
Dr. Augustine Dzathor

*Grambling State University (G.S.U.) is a nurturing university where we take in students with diverse background of academic preparedness and groom them to become useful citizens in society. The College of Business piggybacks on this mission and trains our students to become competent business professionals who distinguish themselves in the world of business and in industry. To ensure this goal, Service Learning is taken very seriously in the College of Business and in the University. In the “Organizational Theory and Management Systems” course, students undertake a practical project whereby they are assigned in teams to investigate structural design problems of an existing small firm and to come up with an ideal or modified organizational structure for the firm or recommend policies to improve the organization’s management system.*
The teams are required to submit a report to the instructor for grading and a copy to the management of the firm under study for possible implementation. Teams also orally present their proposals in a seminar to which the management of the firm under study is invited to attend. The objective is to prepare the students better for industry. At Grambling, we believe the essence of education is action, and not mere knowledge.

**Louisiana Tech University**

Location: Jacob T. Stewart Building, Room 259  
Time: 8:45 a.m. – 9:00 a.m.  
Evaluating Future Health and Physical Educators through Service Learning Projects  
Dr. YuChun Chen, Lacey Deal, and C. Smiley Reeves

The Department of Kinesiology at Louisiana Tech University has implemented service learning projects that help K-12 students build knowledge and skills in areas of physical activity, health and safety while providing invaluable professional development opportunities for Kinesiology majors. This session will present diverse instructional strategies for integrated service learning that fulfills meaningful community service.

Location: Jacob T. Stewart Building, Room 260  
Time: 8:30 a.m. – 8:45 a.m.  
Promoting Children's Health through Interactive Service Learning  
Ms. Sarah McVay, Dr. Patti McFadden, and Ms. Tanya Sims

Pediatric nursing education becomes a memorable one when the student is empowered to plan, implement, and to experience it first-hand. Service-learning education provides an excellent chance to see and assess growth and development, cognitive challenges, and global health. While focusing on current health practice and community wellness, nursing students use knowledge learned in class to provide an educational experience in their local community schools. In a ranking of health disparities of America’s children, Louisiana currently holds a rating of 50th nationally. A service-learning initiative was developed to address the findings in the form of a pediatric health carnival. Students are given the task of formulating and designing educational and interactive play aspects for each carnival booth to implement a health promotion initiative. Faculty and students from the departments of Nutrition and Dietetics, Child Life, Audiology, and Kinesiology were invited to form a collegiate partnership. This environment of interactive play through games with music, fun costumes, and themes allowed the elementary students to participate in booths with a diverse range of age appropriate topics. The engaging atmosphere surrounded children with colorful decorations and prizes, acting as incentives to learn so that each student would go home with a healthier outlook and with new goals to make decisions to improve health choices and habits. The ongoing carnival serves as a commitment to an innovative strategy to promote student learning, problem solving, and critical thinking for nursing students while benefiting community wellness through service learning.

Location: Jacob T. Stewart Building, Room 261  
Time: 9:45 a.m. – 10:00 a.m.  
Service Learning with Marketing Plans  
Dr. Douglas Amyx

Louisiana Tech University’s Marketing Department uses service learning by requiring all marketing majors to develop a marketing plan for real-life clients as part of their Marketing Strategy course (MKTG 473). Students work with a client while enrolled in Marketing Strategy and solve a problem by providing a marketing plan with a presentation that contains tailor-made recommendations. Students are able to implement a wide range of marketing concepts they have learned into an exercise that helps resolve a major marketing problem. Common issues include creating awareness, increasing customers, or better utilizing firm's resources.
Service-Learning Presentations

Students typically find the hands-on project challenging but interesting and something that helps them apply knowledge they have learned in a real-life situation. Students appreciate that they are helping an actual organization and are gaining valuable business experience. Such a project connects to the university's mission to have outreach and connection with our community and business stakeholders while providing a valuable learning model for business-marketing students.

Location: Jacob T. Stewart Building, Room 261
Time: 08:45 a.m. – 9:00 a.m.

Dogs With A Cause: Teaching Majors and Athletes Co-Teaching Character Traits in Our Community
Dr. Amy Vessel and Ms. Amber Burdge

Since 2016, Louisiana Tech University's TEAM Model Clinical Residents and Tech athletic teams have collaborated together to make a difference in our area schools. The program has grown to include all teaching majors and more than 6 athletic teams and coaches. While athletes are experts on the court and field, they respect the expertise of Tech's education majors in the classroom. Through the TEAM approach to learning, students work together with quarterly visits to 6 elementary schools reading, mentoring, and celebrating learning. The program has elevated the prestige of teaching across the university campus and provided individual classroom visits by Tech's athletes serving as role models to students grades PK-6.

Nicholls State University

Location: Jacob T. Stewart Building, Room 261
Time: 9:30 a.m. – 9:45 a.m.

Building Capacity While Protecting Barrier Islands: Nicholls Annual Calypseaux Expedition
Dr. Gary LaFleur, Clara Hebert, and Tyson Crouch

Raccoon Island lies at the western edge of the Isles Derniere Barrier Islands Refuge in Terrebonne Parish. The island supports nesting and resting groups of Brown Pelicans, Great Egrets, Reddish Egrets, Snowy Egrets, Tri-colored herons, Roseate Spoonbills, Royal Terns, Sandwich Terns, Gull-billed Terns, Least Terns, and Laughing gulls. However, the island suffers from coastal land loss due to a combination of marsh breakup, subsidence, and storm impacts. In order for the island to continue serving seabirds as a safe haven with very few predators, Nicholls established a service learning project in 2011 with LA Dept of Wildlife and Fisheries to fulfill two objectives: (1) instill stewardship by introducing our graduate students to the ecology of Louisiana barrier islands, and (2) conduct habitat restoration with an annual planting of black mangrove seedlings. The project requires three primary activities: (1) harvest of propagules from Whiskey Island, (2) maintenance of mangrove seedlings for one year in greenhouses at Nicholls Farm, and (3) a field trip with 20 students to plant black mangroves at Raccoon Island. Although harsh weather has led to some losses, we are beginning to see integrated establishment of a large portion of our restoration plants. In 2018, we observed propagule production from trees planted as part of our project. Besides the restoration success, we have received feedback from some of the 70 participating students that the project delivers valuable instruction, as well as helping to build cohesion within the incoming graduate student cohort.
Ethnographic Course Design Focusing on the Effects of Sociopolitical, Environmental, and Economic Factors of the South Louisiana Peoples: A Service Learning Project
Mrs. Tina Granger

The development of a multifaceted course that includes biographical and historical readings, videos, guest speakers, field interviews, and survey data collection is presented. Student learning outcomes include: knowledge of historical and social facts related to the Cajun culture, the sociopolitical forces that caused the decline of the Cajun language, and the economic and environmental facts that spurred urbanization in south Louisiana. The course included applied ethnographic research skill-building exercises and interviews. Multi-disciplinary students applied ethnographic research techniques at local public events and collected 500+ surveys.

Key words: Cajun culture, Course design, ethnographic research, skill-building, sociopolitical forces, environmental and economic facts.

NSU Design Center, an in-house design lab that services the university and the community; A Tool for Students' Experiential Learning
Emma Wallace and Jaliyah Jasper
Faculty Mentor: Ms. Mirla Eriquez

The Design Center (DC), at the Northwestern State University School of Creative and Performing Arts, is an in-house design studio in which undergraduate students practice the profession of Graphic Design through experiential learning. All work is pro-bono, client-centered. Under the guidance of their professor, students intern for one semester. The most successful students’ internships are extended to a full year. Due to a lack of design agencies or companies in Natchitoches, Louisiana, the DC offers students the opportunity to practice their skills, and apply knowledge gained during course assignments to solving real-world problems. The community and the university contact the DC for projects related to advertising, branding and identity, illustrations, animation, and other design related projects. Being an office that offers pro-bono services has been very attractive for clients in our area. At the same time, client-based projects completed with the DC allows our students to work in a variety of projects, that many times challenge their expectations. While honing their skills and knowledge to produce design work, students experience the full spectrum of possibilities that the design discipline offers. Projects to be presented in this conference include advertising for the American College Dance Association Conference, photo collage for the children’s basketball team of Natchitoches Recreational Park, and Hotter ’N Hell Art Exhibition logo design for the Art Department. This presentation will provide a scope of the work completed by the DC, and will focus on how it impacts students learning experience within an incubator business concept.
SERVICE-LEARNING PRESENTATIONS

academic excellence, leadership, and philanthropy. Our presentation will highlight the service activities organized by Psychology Club and Psi Chi Honor Society in the last two academic calendar years. The presentation describes service activities, addresses the goals of the activities, and discusses the learning outcomes. The service activities include free mental health screenings, mental health resources for students, a vigil for those who lost loved ones to suicide, and "Question, Persuade, and Refer" (QPR) training. The presentation will also address future plans for community and campus service programs for both organizations. The presenters hope to relate past, present, and future service projects to community and campus well-being, and to our personal growth as psychology students.

Location: Jacob T. Stewart Building, Room 260  
Time: 10:00 a.m. – 10:15 a.m.

Mentoring a High School’s First Robotics Competition (F.R.C.) Team
Patrick Sprung
Faculty Mentor: Dr. Jafar Al-Sharab

The NSULA Engineering Technology Department's chapter of IEEE is devoted to the improvement of student learning and opportunities available within our community. The NSULA E.T.I. IEEE Chapter has undertaken the establishment of a FIRST Robotics FRC Team #7562 in pursuit of this goal. The FRC (FIRST Robotics Competition) Team #7562 is comprised of local area high school students as the youth competitors, while utilizing college students and faculty members as the mentor corps, to design and build an industrial sized competition robot. This team's composition and structure lends itself to be a beacon for STEAM education in the Central Louisiana area in the future; with new challenges each year, the NSU Demons Robotics Team FRC #7562 is excited to represent the CentLa community and inspire more teams to form.

Location: Jacob T. Stewart Building, Room 261  
Time: 9:15 a.m. – 9:30 a.m.

Service-Learning Projects Build Community Partnerships and Address Cradle to Prison Pipeline in Natchitoches Parish
Martha Hopewell
Faculty Mentor: Dr. Michelle Brunson and Dr. Katrina Jordan (Co-Faculty Mentor)

The purpose of this session is to describe a service learning project developed by the NSU Early Childhood Education program and the Natchitoches District Defender's Office to interrupt the Cradle to Prison Pipeline in Louisiana.

Because research has long documented the benefits of family literacy activities on young children's development, NSU Early Childhood Education majors engage in service learning projects to donate family literacy bags and tutor children in low performing schools. By providing one-on-one instruction, encouraging families to take active roles in their children's literacy learning at home, and giving the families the necessary tools for achieving this goal, this project aims to remap the Cradle to Prison Pipeline to a Cradle the College Pipeline.

Now in its fifth year, the service learning initiative has evolved and expanded to include broader groups of students on the university campus. Increased student involvement has led to an increased number of school supplies, books, and family literacy bags donated to preschool and kindergarten children from poverty-stricken backgrounds across two parishes. At the end of each semester, the college students are asked to reflect on their experiences. Data from their journal responses will be shared.

In addition, this presentation will tell the story of one Early Childhood major, whose leadership and initiative called her to take the project back to her sorority sisters, who then collected several hundred books and supplies to expand the project.
Catholic Charities of North Louisiana: Meeting Needs through Education and Service

Lauren Gore
Faculty Mentor: Ms. Rebecca Farmer, MSRS RT(R)(M)

The Mission of Catholic Charities of North Louisiana (CCNL) is "to bring Christ’s message of love to the poor and vulnerable by providing quality social services to families and individuals, without discrimination, and in accordance with Catholic Social Teaching and professional standards." CCNL's vision is to invest in people to alleviate poverty, distress, and injustice.

This project consisted of serving the clients who have reached out to the Catholic Charities organization for help related to housing, employment, education and life coaching. The various avenues that these needs are met are provided through emergency assistance, immigration assistance, money school, Gabriel’s closet, Healthy Eating on a Budget and Emergency Food Pantry.

My service with the organization focused on growing my communication skills with a population of people not like me to enhance my empathy and communications skill in my professional degree program. To achieve this, I was involved in the intake process of clients, the education process, placement process and follow up interviewing.

Southeastern Louisiana University

Meeting a Community's Need through App Development: Experience in Serving and Learning

Dr. Minh Huynh, Eraj Khatiwada, and Ribesh Khatiwada

The main purpose of this presentation is to share our experience in the development of a mobile cross-platform app. It reflects service learning--not in a typical classroom--but through a real-world project to meet needs in the campus community. The work has both elements of service and learning. The service part involved giving back to the community. When I learned of the need for an app for a Business Week event, I responded by exploring ways to meet this need. I reached out to interested student. The roadblock was none of us had knowledge and skill in app development. This is where the learning part came in. We formed a small team with different background and set out to learn what was needed to do the work. This was an interesting trial and error process. Eventually, we settled on Ionic framework as the platform for our app development. Then, we focused our effort in getting the app done in time for Business Week. At the end, we were able to deliver the BizWeek app successfully. More importantly is the insight and follow-up work gained from our reflection. The reflection led us to retrace our development work and document the process into our own Search-Retrieve-Display approach. Our goal is to use this SRD approach to create more apps for use in different contexts with the same code and logic but with different datasets. One valuable lesson I learned is how service learning can be a useful form of life-long education.
University of Louisiana at Lafayette

Location: Jacob T. Stewart Building, Room 259
Time: 9:30 a.m. – 9:45 a.m.

“It’s Alive!” – Reanimating Humanities Core Curriculum Courses
Dr. Philip Auer

Humanities courses – particularly at the freshman and sophomore level – can settle into a mundane routine of lecture, exam, and (maybe) one short paper or classroom presentation. A less than ideal situation in any class, this basic approach to a humanities course can result in a “lifeless” experience that fails to awaken in many students the awareness of humanity we are so desperately trying to inculcate.

Experiential Learning Theory identifies learning as “the process whereby knowledge is created through the transformation of experience. Knowledge results from the combination of grasping and transforming experience” (Kolb, 1984, p. 41). But not every student obtains, processes, and understands information the same way.

This presentation will offer ways to encourage students – and teachers – to get out of their comfort zone and truly experience “cultural traditions and the human condition.” It will focus on the human communication course, but the suggestions can be adapted to any humanities class. A variety of methods and approaches to reanimating the course and waking up the students will be offered and discussed. Presentational and interactive approaches to both in-class and out-of-class experiential and service learning will be suggested.

University of Louisiana at Monroe

Location: Jacob T. Stewart Building, Room 259
Time: 9:45 a.m. – 10:00 a.m.

Engaging Undergraduate Social Work Students in an Exploration of Voting Behavior among Traditional ULM Students
Dr. Jennifer Savage and Dr. Pamela Saulsberry

During the Fall 2018 semester, two professors who teach in the ULM undergraduate social work program combined students in two classes to demonstrate human behavior and research methods. Dr. Pamela Higgins Saulsberry, Professor in Social Work and Director of the ULM School of Behavioral and Social Sciences, taught the first of two Human Behavior in the Social Environment (HBSE) courses as required by the Council on Social Work Education (CSWE) accreditation standards. Dr. Jennifer Savage, ULM Associate Professor in Social Work, taught the Research Methods class, also required in the CSWE accredited ULM program. As a result of the momentum of the national social work professional advocacy body, the National Association of Social Workers (NASW), to increase voting registration and actual voting, the professors developed an undergraduate survey research project that involved both classes. Each professor related the experiences to the content of their respective courses, from the reactions of students to being surveyed and what their convenience sample results of over 400 students revealed about voter registration and voting behavior. The professors will briefly describe planned procedures and unexpected outcomes from the teaching and learning experiences. Among the presentation will be some surprising results for both professors and students in both classes regarding the survey results, the most surprising being high registration but low actual voting – and, in particular, the reasons for not voting after registering.
The Bilingual Advantage
Whitten Jennifer Dana
Faculty Mentor: Dr. Pamela Saulsberry

This presentation on The Bilingual Advantage is an accumulation of facts and information gathered while researching the need for bilingual professionals within our diverse nation. The objective of this presentation is to showcase these findings and present the analysis of the need for Spanish speaking employees and how that translates to opportunities for the bilingual college graduate seeking employment. Information is cited from government statistics regarding spoken language, location, and specific careers, as well as information from a collegiate text on human behavior within the larger social environment. Information from widely used reports and websites regarding employment needs and growth areas is also cited. This study was designed to inform on the need for bilingual employees to reach the Spanish speaking population from many professional areas, with a focus on the need within the Social Services sector of employment. This presentation also covers areas of other advantage to the bilingual individual including career and earning opportunities, expanded social diversity, social opportunity, and improved brain function. These findings support the growing need for bilingual employees to serve a growing population of Spanish speaking individuals, as well as increased opportunity for the Spanish speaking graduate.
Keynote Speaker - Dr. Adolph Brown
Founder, President, and CEO of the Leadership and Learning Institute

This is one person’s journey from abject poverty to a Doctorate, a celebrated master teacher, a devoted husband and doting father of a small tribe. I was an underdog who fought for everything I have, and still have a big smile despite those hardships. Some people espouse they have come from humble beginnings; I was destitute, from “the bottom of life.” The photo to the right is a creative representation of how we played basketball as children. I was one of many at-risk students in public school and briefly labeled as a high risk gang-involved youth in my community. I was reared by a single-parent mother in an inner-city housing project with help during the summer months from my rural farming grandparents. In the projects, I often witnessed and was often a part of intense violence. My oldest sibling and only brother attempted to escape the perils of our community and enlisted in the United States Army. He was killed when I was only eleven years old.

I did not meet my father until I ventured to find him when I was 18 years old. I was homeless. I experienced severe poverty. I was a wayward juvenile delinquent. In school, I had one foot in gifted education and the other foot in alternative education. I was lost, but I was hungry. I had a genuine hunger for "something greater" as I was struggling for the correct path.

I may have been from “the bottom of life,” but I was growing up under the influence and tutelage of education and social justice advocates. My mother, my grandfather, uncle Andrew and my aunt Lorraine taught me the importance of helping vulnerable groups. It is as a direct result of these individuals and a "village" of caring business and education community members that I was the first person in my family of five to graduate from high school. I was also the first of my family members to attend college...and the list goes on! **When you are smart, black and from the projects, everyone tells you to be a doctor or a lawyer. No one suggests that you become a teacher or a business owner. I wanted to be an entrepreneur and a teacher.** As a former special education teacher, alternative education teacher and juvenile justice psychologist, I saw firsthand that the "school-to-prison" pipeline was best avoided in the classroom. As a young professor, I joined a newly formed team of researchers to address how to best educate young people as opposed to incarcerating them by **Stopping the School to Prison Pipeline.** **Unconscious implicit bias** and **equity training** became my forte and professional development requests came from all over the world. **Nowadays, from troubled child to successful man - a corporate executive, professor, education and clinical psychologist, author, television talk show host, top youth motivational speaker, master teacher and philanthropist**
whereby most of my charitable work has never been publicized, I share a serious story of my upbringing coupled with research best practices with both humor and gravity. **Although I spend much time on stages, I prefer to positively shine the spotlight on others and provide them with the essential tools and resources to transcend a life of “mediocrity” to a life filled with supernatural success and joy.** Whether from the stage or as a program consultant, I inspire EXCELLENCE for all...from troubled youth to status quo corporations and Priority, Focus & Title I schools.

Life isn’t about getting through the storms, it’s about **dancing in the rain!** It’s about staying positive even in tough times. We must continue to remember, "**It is not how you start, but how you finish that matters!**" As one of the many business motivational speakers & educational consultants, I'm unique in that I inspire others to "Learn, Laugh & Lead "™" wherever I go while spreading LOVE, LIGHT, & INSIGHT along the way. I am a behavioral scientist by education, a servant leader in my heart, an undercover comedian since birth, "Bizarre" by design and a "good guy" by choice..And I will always run topics through my mental and spiritual filter of Christ inside me.

My real "Backstory" is in the word that embodies how I live - **"Enthusiastically."** Enthusiasm originally meant “God in you.” This meaning still applies to my life. My belief in God grounds me and my fear of God keeps me humble.

Love Without Limits!

Dr. Adolph Brown, III
U.S. Secretary of Inspiration / Mover of Mountain
8th Annual ULS Academic Summit
Hosted by Grambling State University

Service-Learning Project
Disaster Relief Supplies Drive for the Tornado Victims in Alabama

ITEMS NEEDED
Baby Formula, Baby Wipes, Bottled Water, Dehydrated Food, Deodorant, Diapers, Feminine Hygiene Products, Hand Sanitizer, N95 Face Masks, Paper Towels, Personal Hygiene Kits, Plastic Gloves, Powdered Milk, Soap, Toilet Paper and USBs

Collection Dates: April 10-12
Drop-Off Location: Jacob T. Stewart Building, Room 222
Thanks in Advance for your Donations!

For additional information contact: Dr. Rory L. Bedford, Director
Continuing Education and Service-Learning
318-274-2547 / bedfordr@gram.edu

www.gram.edu/academics/summit2
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Row 2 (Left to Right): Ms. Natorshau Davis, Dr. Jacquelyn Harris, Mr. Prentiss C. Smiley (Graduate Student), Mr. Rodericaus Davis

Row 3 (Left to Right): Dr. Rory L. Bedford (Chair, Steering Committee), Dr. Ellen D. Smiley (Co-Chair)

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Ms. Jacqueline Newsome
Dr. Ellen D. Smiley
Conference Organizers

Left to Right: Mrs. Michelle Hopwood (special projects), Dr. Rory L. Bedford (Chair, Steering Committee), Mrs. Miloni Perera (logistics)

Contact Information:

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8th ANNUAL ULS ACADEMIC SUMMIT
Hosted by Grambling State University

April 11th 2019 - Black and Gold Room – 4:00 p.m.
Taste of Louisiana

**Station 1**
Collard Greens
Mini Hot Water Cornbread
Drumettes – Fried & Baked Peppers

**Station 2**
Mini Natchitoches Meat pies
Mini Boudin Balls
Jambalaya (Sausage and Chicken)

**Station 3**
Gumbo (Shrimp, Sausage, & Chicken)
Red Beans with Sausage
Crawfish Etouffee
Rice

**Station 4 (Vegan)**
Salad Station
Veggies (Veggie Cups)
Kale Salad Mix
Red Beans and Rice (No Meat)
Peach Cobbler
Strawberry Fruit Cup
Pralines
Water, Tea, and Fruit Punch

April 11th 2019, Jacob T. Stewart Building, Room 262, 8:00 a.m.
Light Breakfast

Chicken and Waffles Bite Size Skewer
Fruit Cups
Coffee
Bottled Water
Hot Water/Tea Bag
Green Tea
Breakfast Punch

April 12th 2019, Fredrick C. Hobdy Assembly Center – 10:45 am
Lunch

Catfish Filets
Baked Chicken Supreme
Vegan Pasta (No Cheese or Dairy)
Seafood Dressing and Cranberry Sauce
Sweet Peas
Carrots
Salad
Rolls

Cheese Cake
Bread Pudding
Tea/Water
8th ANNUAL ULS ACADEMIC SUMMIT
Hosted by Grambling State University

Ushers

Delta Sigma Theta Sorority Incorporated Delta Iota Chapter
Earl Lester Cole Honors College
Grambling State University Student Ambassadors

Enausha Abney
Taylor Austin
Zaphany Banks
Sierra Birdsong
Teara Breaux
Jada Burney
Savannah Charles
Tenon Cherry
Jazmine Cyprian
T'Narrio Elliot
Renee Garner
Taylor Graham
Robbyn Hadley
Trevente Harper
Frederick Harrell
Courtney Hawkins
Ambria Holmes
Harry Hooker III
Tatum Howard
Rickenzie Johnkin
Reggie Johnson
Charity Jones

Andrew Jones
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Justin Malone
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Rachael Moten
Ashton Myers
Raegan Nation
Aliana Pacquette
Leaudrea Sanders
Jamia Smith
Sierra Sutton
Ebomee Swann
Madison Thomas
Richard Vernon
Cheyenne Walker
Stevie Wilson
Grambling State University

Parking: Please use the parking lots in front/back of the Conrad Hutchinson Jr. Performing Arts Building or the parking lot in front of Jacob T. Stewart Building.