

THE TENTH ANNUAL UNDERGRADUATE RESEARCH SYMPOSIUM

Conference Program
April 29, 2017



Hosted by the Elliott T. Bowers
Honors College Ambassadors




**UNDERGRADUATE
RESEARCH SYMPOSIUM**

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A - Oral-Media-Panel Presentations	18
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**ALL ORAL-MEDIA SESSIONS WILL BE HELD IN THE CHSS BUILDING
THE POSTER SESSION WILL BE HELD IN THE LSC, THIRD FLOOR**

SH™ | **UNDERGRADUATE
RESEARCH SYMPOSIUM**

8:00-8:45	Registration
8:45-8:55	Welcome and Opening Remarks Room C070
9:00-10:15	Session A, Oral-Media Presentations
10:30-11:45	Session B, Oral-Media Presentations
12:00-1:15	Lunch with Speaker Dr. Ken Hendrickson, Dean of Graduate Studies LSC Ballroom
1:30-2:45	Session C, Poster Session LSC, Third Floor
3:00-4:15	Session D, Oral-Media Presentations
4:30-5:00	Closing Ceremony Room C070

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THE POSTER SESSION WILL BE HELD IN THE LSC, THIRD FLOOR**



**The Undergraduate Research Symposium
Is Sponsored By:**

Elliott T. Bowers Honors College
College of Criminal Justice
College of Education
College of Fine Arts and Mass Communication
College of Health Sciences
College of Humanities and Social Sciences
College of Sciences
E.U.R.E.C.A. Center
Office of Research and Sponsored Programs
Professional and Academic Center for Excellence

The URS especially thanks Dr. Hiranya Nath for his
generous Assam Scholarship





The Texas State University System Board of Regents, 2017

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Janet Mullings	Criminal Justice
Benjamin Park	History
G. Kevin Randall	Family and Consumer Sciences
Jeff Wozniak	Biology
Pamela Zelbst	Management

A Message from Our Faculty Advisor

Welcome to the Tenth Annual Undergraduate Research Symposium, hosted by the Ambassadors of the Elliott T. Bowers Honors College! This conference provides a professional environment in which student scholars can share their past, current, and ongoing research. Because national studies have shown that undergraduates who participate in research are better communicators and more effective leaders, the URS acts as a springboard for post graduate success. Several of our past participants have gone on to experience inspiring professional endeavors which have had their foundation at this conference. For those faculty who have worked closely with their students during preparation for the URS, this accomplishment is a source of enormous gratification.

The Honors Ambassador co-chairs Everett Moore, Conner Rousseau, and Kristyn Couvillon have worked extraordinarily hard over the past year to make this conference an ongoing success. This wonderful team worked over the summer to overhaul the URS website and registration module to ensure ease of navigation during the registration process. To encourage student success, they provided information links that covered the varied etiquettes of conference presentation, from dress to poster design. Additionally, they have organized several information sessions, sent out information packets to every faculty member on campus; they have formed ambassador committees for abstract review, communication dissemination, and conference logistics; they have chosen new merchandise, planned meals, and made decisions about next year's event. Ambassador Raynie Leard has also worked single-handedly on the design and organization of this year's program, providing invaluable advice and guidance. Again, this conference would not be possible without the combined effort of these highly motivated and professional corps of Ambassadors.

But these students are not the only ones who have dedicated themselves to furthering what is now a nation-wide effort to promote undergraduate research. Others have been just as vigorous in their support, including faculty advisors who have helped students with their research, family and friends who have come to show their support, faculty and graduate student volunteers who have devoted their Saturday to giving presenters feedback, staff members who have been working overtime to ensure that everyone is fed, given gift bags, directed to the right rooms, and checked in properly. The Honors College, College Deans, the Professional and Academic Center for Excellence (P.A.C.E), the Office of Research and Sponsored Programs (O.R.S.P.), and the Center for Enhancing Excellence in Research Experiences and Creative Activities (E.U.R.E.C.A) have generously paid for this event because they believe in promoting undergraduate research and in supporting the URS. We recognize and deeply appreciate their active support of this endeavor. Finally, we especially thank Dr. Ken Hendrickson Dean of Graduate Studies and Professor of History, for his enthusiastic willingness to serve as our luncheon speaker, and Dr. Hiranya Nath, Professor of Economics, for his very generous Annual Assam Scholarship Award.

Today's conference celebrates what is best about Sam Houston State University: our students, our commitment to excellence in education, and our dedication to undergraduate research.



Dr. Tracy Bilsing

*Faculty Advisor, Co-Chairs and URS Faculty Committee Chair
Assistant Dean, Elliott T. Bowers Honors College*

URS History and Mission Statement

In 2008, the Honors Student Ambassadors began the Undergraduate Research Symposium (URS). The goal was two-fold: to share research with fellow students and to gain experience in preparation for future conferences. Today, the URS continues to provide a forum where all SHSU undergraduate students can present their research to others in a professional environment while giving students the opportunity to gain expertise in their field and to receive feedback from other scholars and members of the academic community. Additionally, the URS offers three \$500 awards: The Assam Scholarship for Honors Research Award, The Honors College Award for Best Overall Oral-Media Presentation, and the Honors College Award for Best Overall Poster. Other awards include honorable mention awards, the E.U.R.E.C.A. Award for Best FAST Oral Media Presentation, and the E.U.R.E.C.A. Award for Best FAST Poster. The URS is supported by the faculty and staff of the Elliott T. Bowers Honors College.



A Message from Our Co-Chairs

Welcome to the 10th year of the Undergraduate Research Symposium! The co-chairs and Honors Ambassadors are excited to have a role in bringing this incredible experience to life for each and every one of you. Ten years ago, this conference began with a grand total of 6 presenters and 15 attendees (including the six presenters)! With all of you here today, we have almost 150 presenters and over 400 attendees! To put it simply, you all are making history by crafting a growing experience into something even larger.

And why does this matter? Sure, the Undergraduate Research Symposium is a great way to get the feel for a professional conference — students find an attentive audience, receive professional feedback, and acquire experience in presenting your work. Of course, the

Undergraduate Research Symposium also serves as a great method for building your resume or CV. Add free food and goodies to that equation, and you already have plenty of reason to enjoy the event.

However, the co-chairs feel that the greatest benefit of the Undergraduate Research Symposium stems from the pride. There is nothing quite like sitting in a room with fellow SHSU students and seeing them showcase the amazing things happening within our university seen through the impressive and novel ideas taking flight within this conference. Each and every one of you is a part of this organic, incredible experience, and that is something to take immense pride in. Whether it be as a first time or veteran presenter, an ambassador or volunteer, an advisor or faculty moderator, an administrator or supportive audience member, we all have an integral part to play in making this one-of-a-kind event a success. Thank you for your unique contribution to the 10th year of a program that we hope to see continue for a long time to come. Enjoy your day!

Everett Moore
URS Co-Chair

Conner Rousseau
URS Co-Chair

Kristyn Couvillion
URS Co-Chair

Honors Faculty and Staff

Dean	Kimberly Bell, Ph.D.
Associate Dean	Maria Holmes, Ed.D.
Associate Dean	Patrick Lewis, Ph.D.
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Administrative Coordinator	Connie Rodriguez
Undergraduate Student Assistant	Lauren Blossom
Undergraduate Student Assistant	Kayla McCarns
Undergraduate Student Assistant	Conner Rousseau
Undergraduate Student Assistant, Program Designer	Raynie Leard
Ambassador President, URS Co-Chair	Everrett Moore

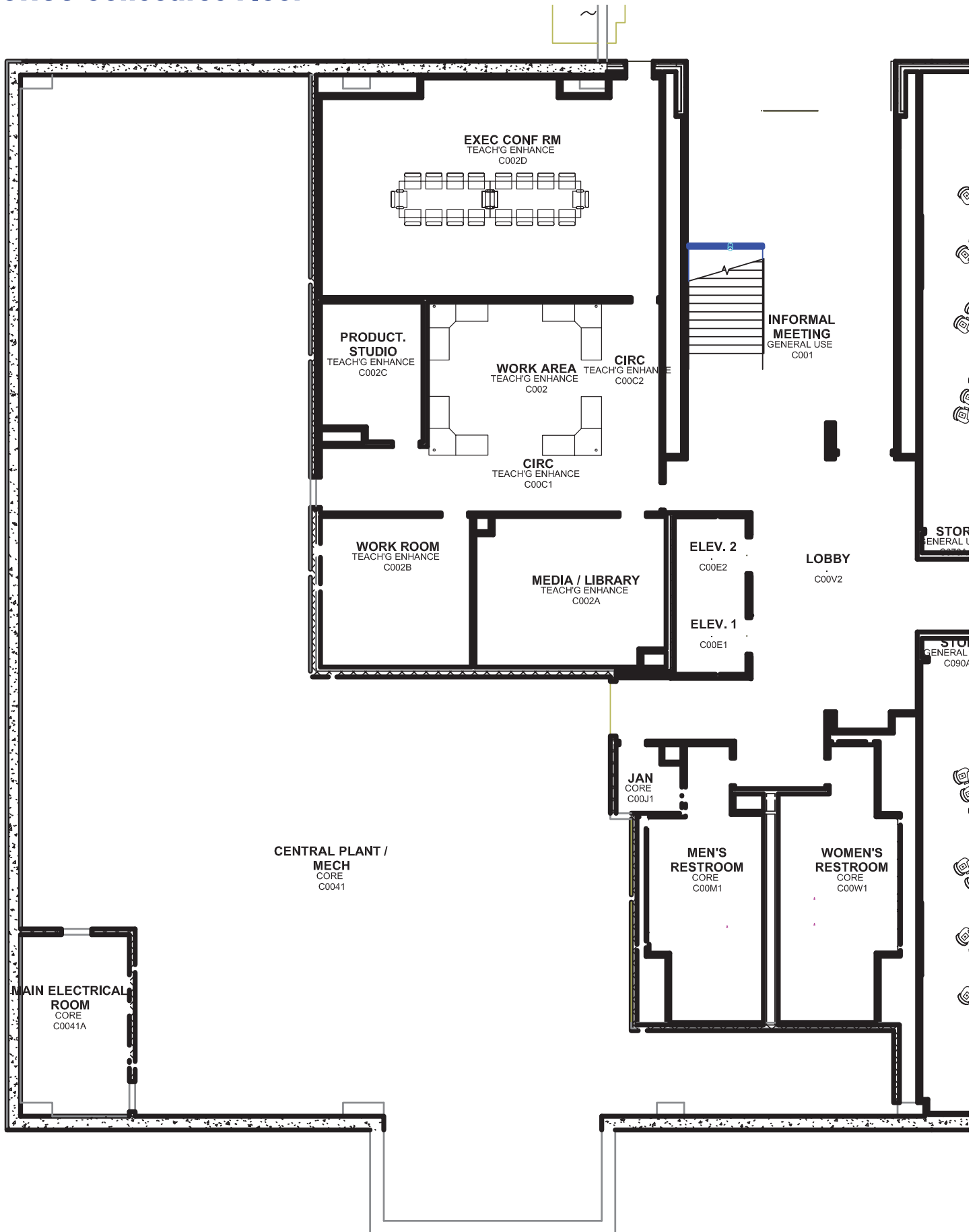
The Undergraduate Research Symposium Faculty Committee

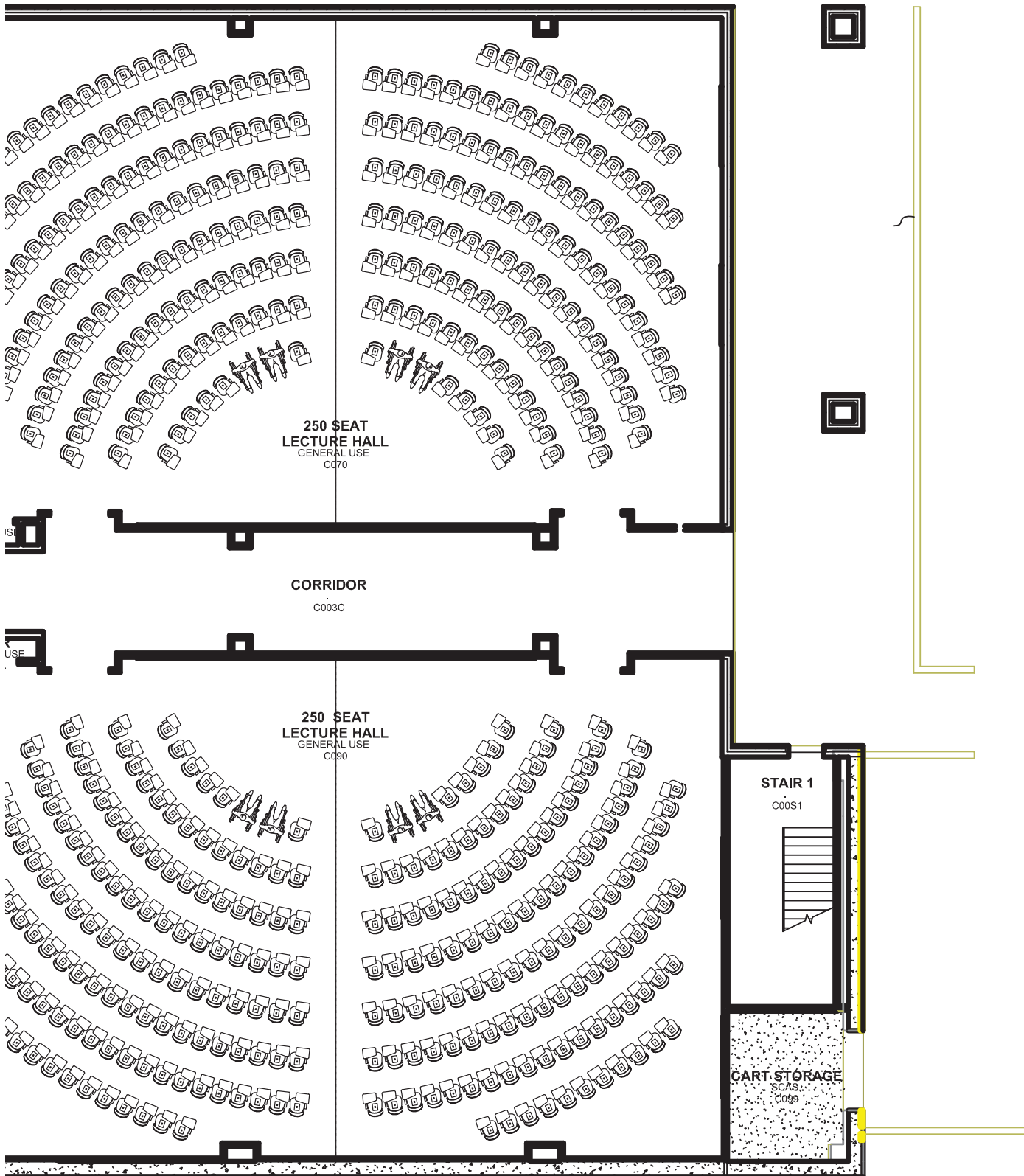
Dr. Tracy Bilsing
Dr. Lydia Fox
Dr. Maria Holmes
Mr. John Jordan
Dr. Patrick Lewis
Dr. Pamela Zelbst

Honors College Ambassadors

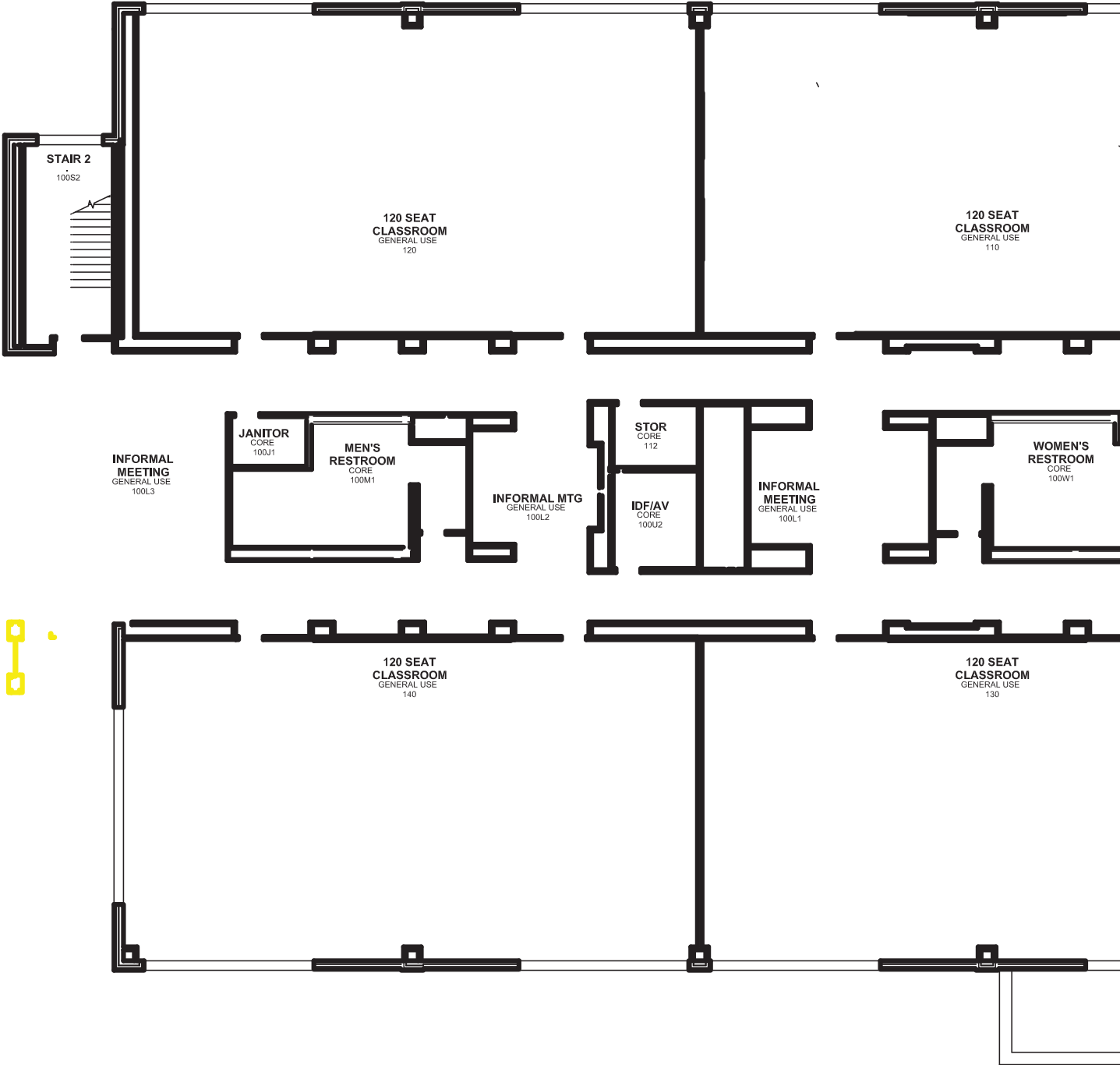
Kristyn Couvillion	Dylan McFarland	David Porter
Rachael Hunnicutt	Joshua McGinty	Conner Rousseau
Amie Kas	Denisa Micliuc	Lauren Rudie
Logan Kennemer	Everrett Moore	Courtney Shaw
Raynie Leard	Daniel Nwosuocha	Danielle Watley
Beverly Liu	John Pinard IV	Lixin Zhang
Stephanie Luk Bounsawat	Zane Pion	
Kayla McCarns	Ashley Platero	

CHSS Concourse Floor



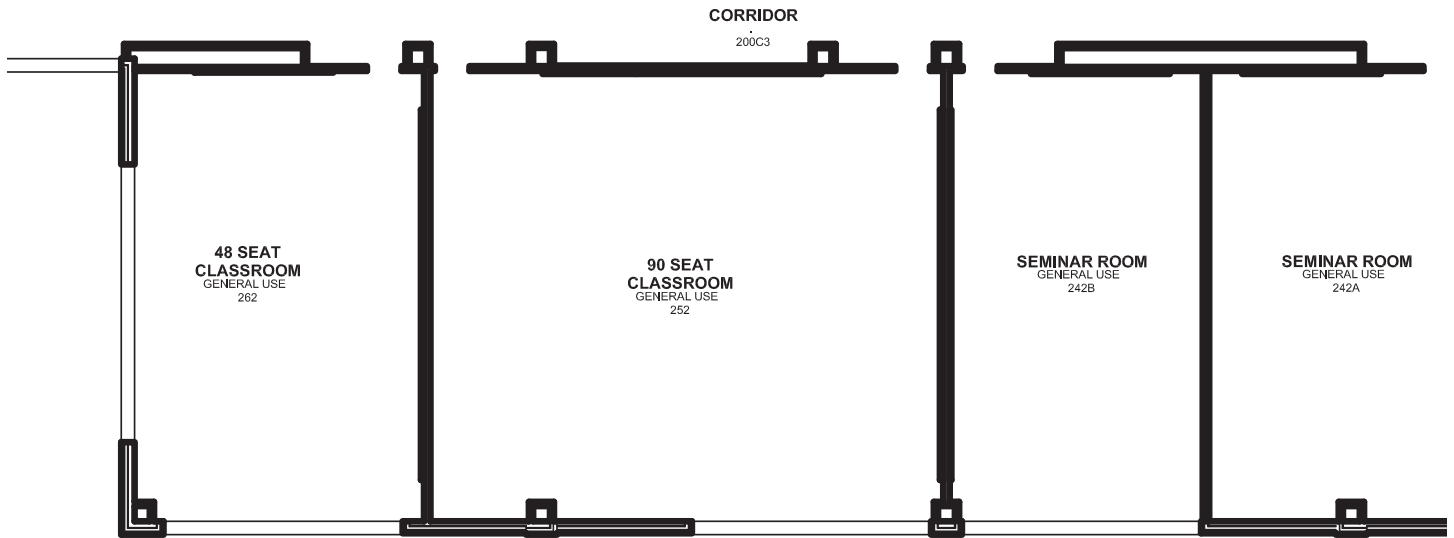
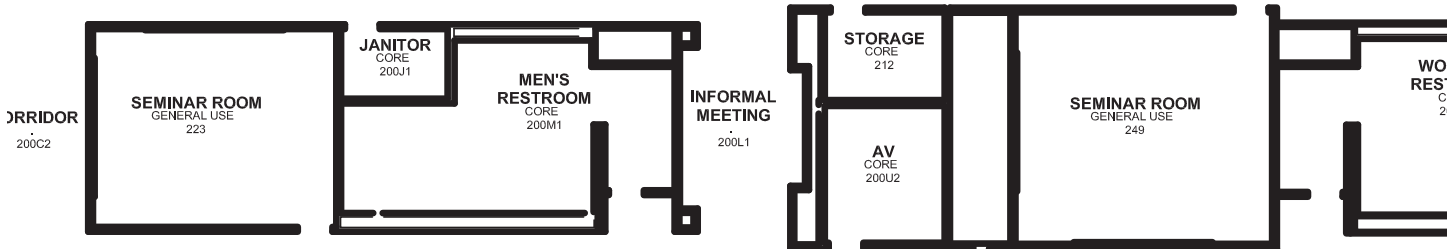
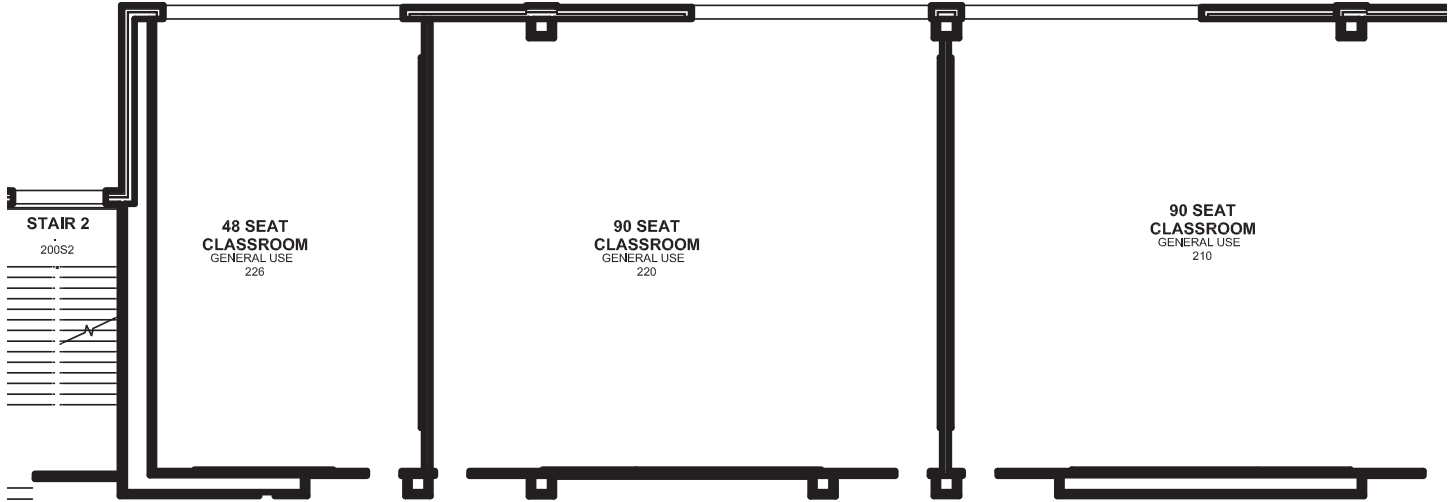


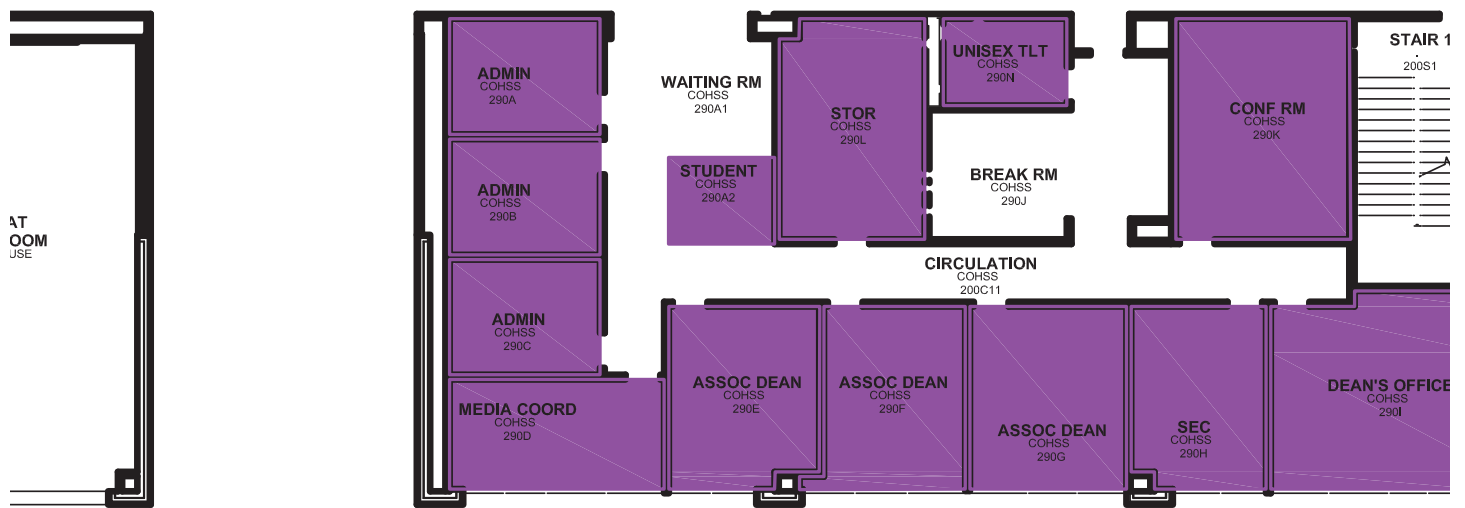
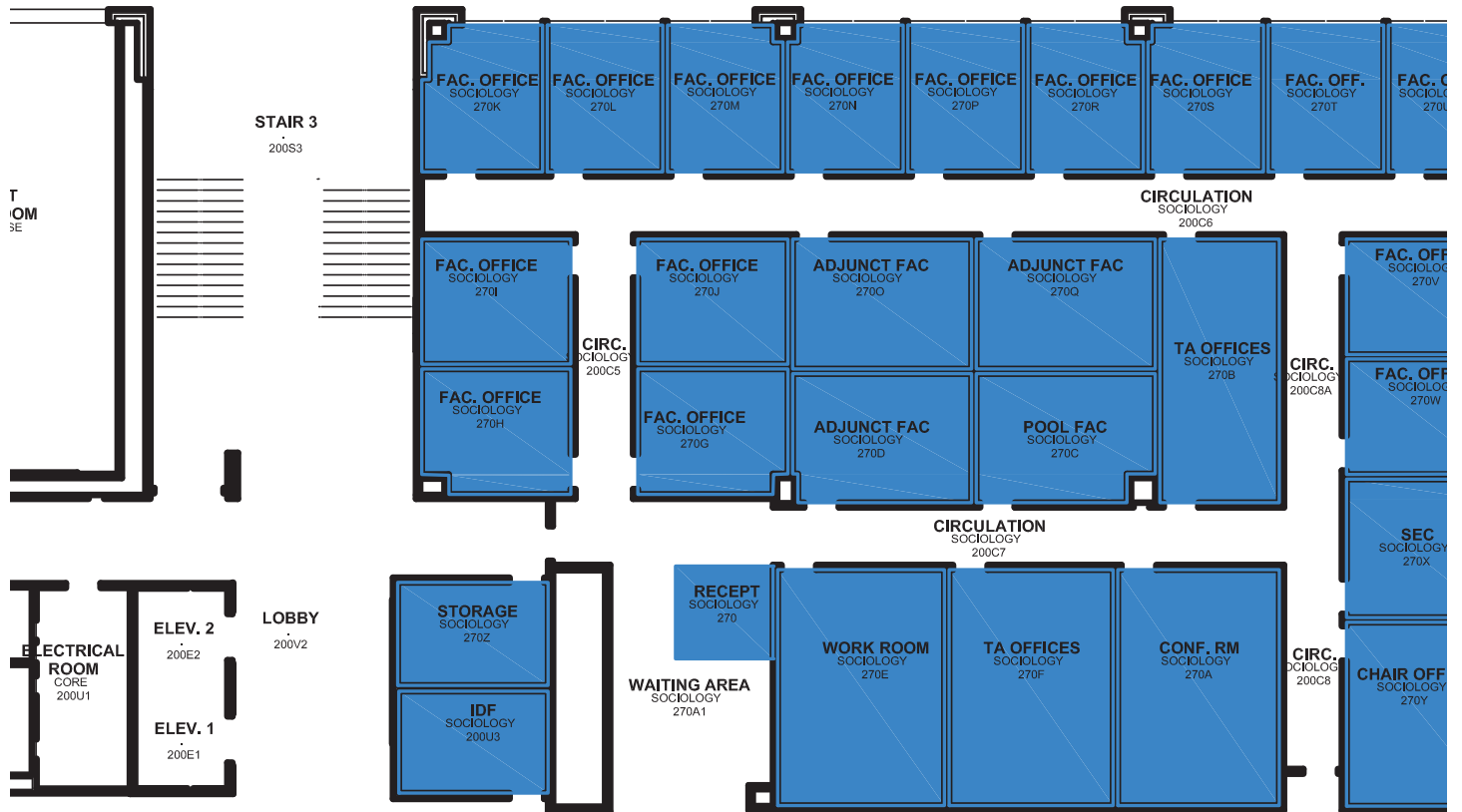
CHSS First Floor





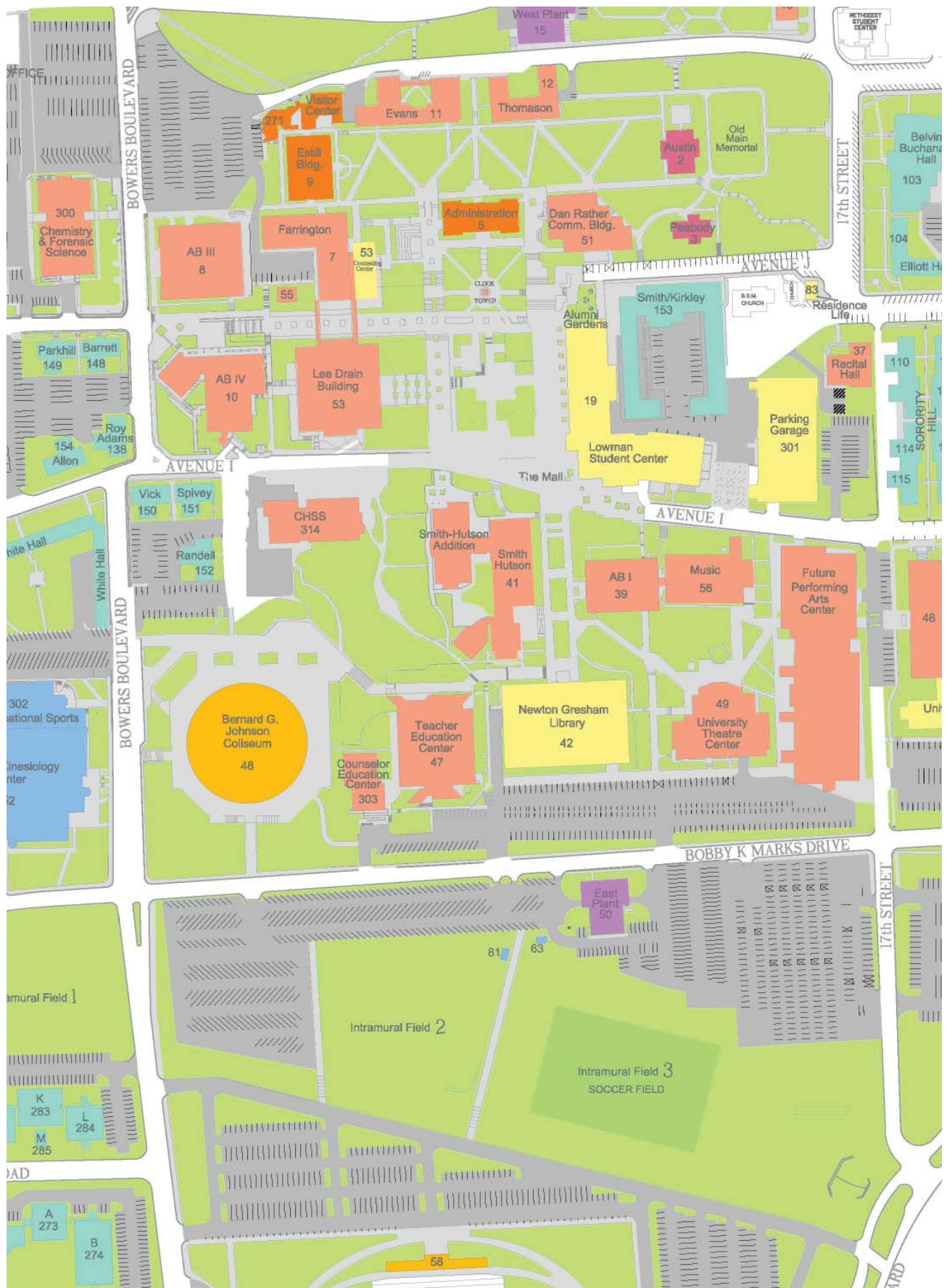
CHSS Second Floor





Campus Map





Session A

9:00-10:15

ROOM
206 Historical Narratives

The Princes and The Tower

Shelby Dyson

Faculty Advisor: Dr. Amy Dean

Japanese Documents for Mongol History

Daniel Agey

Faculty Advisor: Dr. Stephen Rapp

Puritanism, Alcoholism, and Catholicism: A Historical Analysis of the Use of Christian Modelism from the Puritans to the Temperance Movement

William Bailey

Faculty Advisor: Dr. Benjamin Park

Cotton, Fire, and Pride: The Lives On and Off the Docks of the Members of the Galveston Screwmen's Benevolent Association, 1886 - 1885

Serena Barbieri

Faculty Advisor: Zachary Montz

ROOM
220 Literature: Religion and Myth

Female as "Abject" and the Suppression of Female Sexuality in Ancient Mythology

Cheyenne Moore

Faculty Advisor: Dr. Michael Demson

The Traditional Apocalypse

Cora Davis

Faculty Advisor: Dr. Michael Demson

The Uprising of the Battle Goddess

Kianna Taylor

Faculty Advisor: Dr. Michael Demson

Codependency of Good and Evil in the Theology of Wordsworth and Blake

Sarah Daniel

Faculty Advisor: Dr. Michael Demson

ROOM
226 Revolution and the Arts

Dadaism and the KPD

Sean Pruetz

Faculty Advisor: Dr. Ervin Malakaj

Texas Revolution

Indya Finch

Faculty Advisor: Dr. Jason Payton

Othering in Joseph Conrad's Heart of Darkness

Brittany Page

Faculty Advisor: Dr. Tracy Bilsing

Session A

9:00-10:15

ROOM
232 Philosophy: Past, Present, and Future

Floating or Falling?

Victoria Makanjuola

Faculty Advisor: Dr. Kay Angrove

The Rights and Personhood of Artificial Intelligence

Jaren Crist

Faculty Advisor: Dr. Maria Botero

Why Philosophy With Children?

Corissa Barrow

Faculty Advisor: Dr. Charles Carlson

As Derrida, as Lewis, as Abraham

Treston Smith

Faculty Advisor: Dr. Harris Bechtol

ROOM
242A Literature: Beowulf and Beyond

Micro Reflections of the Macro: a Case Study in Beowulf

Clayton Bradshaw

Faculty Advisor: Dr. Kimberly Bell

Reading in 3D: Bringing a New Meaning to Beowulf and Harry Potter

Tyler Josefsen

Faculty Advisor: Dr. Kimberly Bell

The Sacred Swords and Beowulf's Grip

David Bell, Justin Thompson

Faculty Advisor: Dr. Kimberly Bell

The Similarities Between "The Ruin" and Hrothgar's Heorot: They're Not Just Another Beer Joint

Sylvia Halfhil, Paula Tuck

Faculty Advisor: Dr. Kimberly Bell

Session B

10:30-11:45

ROOM 206 Lost History

Linguistic Ancestry

Jeremy McPhail

Faculty Advisor: Dr. Ervin Malakaj

Heritage Learner Program-A Sam Houston Necessity

Victoria Garcia

Faculty Advisor: Dr. Montse Feu Lopez

Poverty in the Eyes of Hannah More and Thomas Paine

Marissa Baumgartner

Faculty Advisor: Dr. Michael Demson

ROOM 220 Computer Systems

A New Polynomial Invariant for Unoriented Links

Kaitlin Tademey

Faculty Advisor: Dr. Sandy Ganzell

SQL Injection Log Manager

Darryl Idle

Faculty Advisor: Dr. Bing Zhou

Acquisition of Browser Artifacts from Android Devices

Emrah Sariboz

Faculty Advisor: Dr. Cihan Varol

Introduction to Management Information Systems

Jacob Keddy

Faculty Advisor: Dr. Jaris Warner

ROOM 226 Reconfiguring the Arts

Woyzeck: Book Design

Bradley Ivey

Faculty Advisor: Dr. Nick Lantz

Revising "Raymonda": Danced in Pieces, Towards Dancing the Whole

Rachel Cox

Faculty Advisor: Dr. Jessica Herzogenrath

Hear Us Roar: Women, Dance, and Chicago

Mary Fisher

Faculty Advisor: Dr. Jessica Herzogenrath

Surrealism in a Material World: Where Design Meets Dance

Kalee Irwin

Faculty Advisor: Dr. Jessica Herzogenrath

Session B

10:30-11:45

**ROOM
232**

Biology: Insect, Crustacean, Mammal

Assessing the Taxonomy of Sexually Dimorphic Wasps Using DNA Sequences

Mary Richards

Faculty Advisor: Dr. Carly Tribull

Researching the Taxonomy of Bethyilidae

Scott Johnson

Faculty Advisor: Dr. Carly Tribull

Distribution of the Blue Crab (*Callinectes sapidus*) in a Complex Coastal Ecosystem

Abigail Miller, Shyon Motlagh, Nicole Rathwell

Faculty Advisor: Dr. Jeffery Wozniak, Dr. John Alford, Dr. Edward Swim

Determination of the Maximum Inclusion Rate of CLA in Horses

Hali Behrens-Russell

Faculty Advisor: Dr. Marcy Beverly

**ROOM
242A**

Crime and Civic Duty

Sexual Abuse: Inadequate Resources Hinder Prevention

Carla Hobbs

Faculty Advisor: Dr. Naomi Timm

Intersection Between Mandatory Reporting and Child Abuse

Beverly Liu

Faculty Advisor: Dr. Michael Vaughn

A Comparison of Self-Esteem, Self-Control, and Substance Use Among Undergraduate Students

Kayla McCarns

Faculty Advisor: Dr. Ashley Fansher

Intervention Points for Post-Separation Sexual Assault

Georgi McNease

Faculty Advisor: Dr. Brittany Hayes

**ROOM
242B**

Spoken Word: Different Worlds, Common Dreams

Space Dream to Earth Reality

Kirstie Mattos

Faculty Advisor: Dr. Kay Angrove

Green Card

Jonathan Brown

Faculty Advisor: Dr. Jordan Chang

A Streetcat Named Syria

Clayton Bradshaw, Victoria Pantalion

Faculty Advisor: Dr. Ching-In Chen

Eat Local, Read Local: Exposing Everyday People to Poetry

Charlotte Goodrum, Jill Taylor

Faculty Advisor: Dr. Ching-In Chen

Good Vibrations

Miranda Rehak, Niko Smith

Faculty Advisor: Dr. Ching-In Chen

Daniel Borzutzky in Conversation with No Country for Old Men

Sara Reyes, Maggie Boyle, Garrett Sheaffer

Faculty Advisor: Dr. Ching-In Chen

Session C: Posters

1:30-2:45

ROOM College of Science and
320 Engineering Technology

Effects of Climate Warming on Tadpole Feeding, Growth, and Waste Production

Terry Ball, Anne Marie Bledsoe

Faculty Advisor: Dr. Carmen Montaña

The Use of Human Femora in the Estimation of Postmortem Interval

Sarah Bivens, Lauren Rudie

Faculty Advisor: Dr. Patrick Lewis

Interactions Between Penned and Native Whitetail Deer

Elizabeth Brindza, Taylor Zobrist

Faculty Advisor: Dr. Doug Ullrich

Using Magnetic Susceptibility to Determine the Age of Drill Cores from the Mozambique Channel

Will Burns, Cameron Chadinha, Britt Mitchell, Joshua Smesny, Shelly Tran

Faculty Advisor: Dr. Gary Acton

Distinct Patterns of Skull Morphology Among Australian Legless Lizards (Aprasia: Pygopodidae)

Olivia Clark

Faculty Advisor: Dr. Juan Daza

REE Distribution in the V-Intrusive of Central Arkansas

Kristin DeBone

Faculty Advisor: Dr. Pat Harris

Bacterial Composition During Human Cadaver Decomposition in Southeast Texas

Heather Deel

Faculty Advisor: Dr. Aaron Lynne

Does Class Time Influence Student Performance?

Lariat Emley

Faculty Advisor: Dr. Shyam Nair

Heavy Metal Tolerance in Rhodobacter Sphaeroides

Alexis Farmer

Faculty Advisor: Dr. Madhusudan Choudhary

Impact of an Animal Science Course on Student's Perception on Animal Issues

Kevin Fogelquist

Faculty Advisor: Dr. Shyam Nair

Petrographic Analysis of Silicified Coral from the Manistique Group of the Michigan Basin

Kaitlyn Gauvey

Faculty Advisor: Dr. Jonathan Sumrall

Cardiac Functional Decay by Downregulation of Two Novel E2 Ubiquitin Conjugated Enzymes

Javier Gomez

Faculty Advisor: Dr. Anna Blice-Baum

Parasitoid Wasps, Comics, and DIY Entomology - What Can Go Wrong?

Leilani Hamilton

Faculty Advisor: Dr. Carly Trubill

Goat Behavior

Rayne Horton

Faculty Advisor: Dr. Diane Neudorf

A copal gecko from Madagascar

Jordan Hunziker

Faculty Advisor: Dr. Juan Daza

Functional Distance and Establishment of Non-Native Species with Complex Life Cycles

Kelsey Kralman

Faculty Advisor: Dr. Carmen Montaña

What Do Employers Want? An Analysis of An ASET/STEM Career Fair from the Employers' Perspective

Alex Lara

Faculty Advisor: Dr. Shyam Nair

Species Co-Occurrence Patterns Along Environmental Gradients in Pond Microhabitats

Clay Laughrey

Faculty Advisor: Dr. Carmen Montaña

An Analysis of Student Safety Education: Student Safety Habits In and Out of the Agricultural Mechanics Laboratory

Hannah Lewandowski

Faculty Advisor: Dr. P. Ryan Saucier

Evaluation of Passive Transfer Immunity and Predicting Survivability in Newborn White-Tailed Deer Fawns

Megan Loveless, Samantha Hudson

Faculty Advisor: Dr. Kyle Stutts

The Effect of Sucralose in Nauphaeta cinerea

Linette Ly

Faculty Advisor: Dr. James Harper

Are Urban Dwellers Bold? An Assessment of Personalities in Urban and Rural Birds

Austin Mcilhany, Daniel Nwosuocha

Faculty Advisor: Dr. Diane Neudorf

Crop and Water Allocation for Profit Maximization in Texas High Plains

Brackston McKnight

Faculty Advisor: Dr. Shyam Nair

Petrographic Analysis of Chert Within the Manistique Group of the Michigan Basin

Kimberly Moore

Faculty Advisor: Dr. Jonathan Sumrall

On the Occurrence of the Stapedial Foramen in Geckos

Hannah Morris

Faculty Advisor: Dr. Juan D. Daza

The Comparison of Broad vs. Narrow Spectrum Antibiotics on the Mucosal Microbiome

Nicholas Nowak

Faculty Advisor: Dr. Todd Primm

Buy, Rent, or Time Share: Birds of Sam Houston State University's Campus

Thomas O'Connor

Faculty Advisor: Dr. Diane Neudorf

Characterization of Metacaspase II During Programmed Cell Death in Chlamydomonas

William Perez

Faculty Advisor: Dr. Anne Gaillard

Professional Development Needs of Early Career Texas Agricultural Science Teachers: A Focus on Agricultural Mechanics Skills

Emily Riggin

Faculty Advisor: Dr. P. Ryan Saucier

Acquisition of Browser Artifacts from Android Devices

Emrah Sariboz

Faculty Advisor : Dr. Cihan Varol

Antibiotic Side Effects: Looking at Intestinal Motility

Rebecca Vaughn

Faculty Advisor: Dr. Todd Primm

Skull Variation in Plug-nosed Gecko *Chatogekko Amazonicus* (Gekkota: Sphaerodactylidae)

Jessica Wright

Faculty Advisor: Dr. Juan Daza

**ROOM
302** College of Humanities and Social Sciences

Car Companies Becoming Family

Meghan Calloway

Faculty Advisor: Dr. Brian Blackburne

Clowning Around in Politics

Timothy Child

Faculty Advisor: Dr. Brian Blackburne

The Effect of Acculturation on Psychopathology in Displaced Immigrant Youth

Amanda Downs

Faculty Advisor: Dr. Amanda Venta

Examining Life Satisfaction and Alcohol Use Through Individual Variation in Daily Religious and Spiritual Activities

Madison Duane, Catherine Stallard

Faculty Advisor: Dr. Craig Henderson

Rogersville - A Historic Neighborhood In Huntsville

Cherese Evans

Faculty Advisor: Dr. Jeff Littlejohn

Discourse for Your Dollar: Using Rhetoric to Reach Goals

Shayne Johnson

Faculty Advisor: Dr. Brian Blackburne

The Flat: A Historic African American Community in Huntsville

Willie Kinch

Faculty Advisor: Dr. Jeff Littlejohn

Mindfulness and Forgiveness

Shaelyn Lewis

Faculty Advisor: Dr. James Crosby

Change Blindness: Evaluating Attentional-Based Processing Within the Own-Race Bias

Karima Shehaden, Renee El-Krab

Faculty Advisor: Dr. Jeffrey Anastasi

Practicum in Poker

Daniel Tobin

Faculty Advisor: Dr. Brian Blackburne

**ROOM
315** College of Humanities and Social Sciences

Beowulf in Eighth Century Anglo-Saxon England

Daniel Agey, Rebecca Roberts

Faculty Advisor: Dr. Kimberly Bell

Persuasion: The Power of DVD Plot Synopses

Jordan Anderson

Faculty Advisor: Dr. Brian Blackstone

Maps as Literature

Clayton Bradshaw

Faculty Advisor: Dr. Jason Payton

Musical Gods and Sexual Desires

Krystal Dabney

Faculty Advisor: Dr. Michael Demson

What Gets You to the Afterlife

Shelby Dyson

Faculty Advisor: Dr. Michael Demson

Fake News

Anne Galloway

Faculty Advisor: Dr. Brian Blackburne

The Eternal Strife of the Raging Barbarian: The Plight of the Pagan Warrior Beowulf

Bryce Gaskey

Faculty Advisor: Dr. Kimberly Bell

Not Even Once

Cameron Medeiros

Faculty Advisor: Dr. Brian Blackburne

Paradise Lost and Frankenstein

Cheyenne Moore

Faculty Advisor: Dr. Audrey Murfin

Zhang Ailing’s “Sealed Off”:Feminism/Femininity and Social Policy in Chinese Literature

Diana Lee O’Quinn

Faculty Advisor: Dr. Audrey Murfin

Remnants of Women in Beowulf

Walkyria Orellna, Chloe Spence

Faculty Advisor: Dr. Kimberly Bell

The Character of King Arthur

Karisma Paden

Faculty Advisor: Dr. Michael Demson

Understanding “A Modest Proposal”

Rebekah Primrose

Faculty Advisor: Dr. Audrey Murfin

Huntsville Hospitality

Angela Shackelford, Ashley Goode

Faculty Advisor: Dr. Ching-In Chen

Comics: A Modern Day Mythology?

Treston Smith

Faculty Advisor: Dr. Michael Demson

**ROOM
304**

**College of Health Sciences
College of Criminal Justice
College of Fine Arts and Mass Communication
College of Education
College of Humanities of Social Sciences**

The Relationship between Isokinetic and Field Test Measures in Collegiate Track Athletes

Devin Anderson, Kendall Mehlhorn

Faculty Advisor: Dr. Mary Williams, Dr. Matthew Wagner

Meditation and Athletic Performance

Dakota Bales

Faculty Advisor: Dr. Maria Botero

When does Childhood Abuse Relate to Conduct Problems Among Immigrant Adolescents? Examining the Role of Peer Relationships

Yessica Colin

Faculty Advisor: Dr. Amanda Venta

The SHSU Common Reader, An Astronaut's Guide to Life on Earth: Challenging the Co-teach Program in K-12

Kaci Heath

Faculty Advisor: Dr. Nancy Stockall and Dr. Kay Angrove

Incidence of Sexual Victimization Among College Students Who Meet Their Perpetrators Online

Cristal Hernandez

Faculty Advisor: Dr. Brandy Blasko

Youth-enizing Don Quixote: A Look at the Noblest Knight in History as He is Introduced to Young Readers

Isabel Lopez

Faculty Advisor: Dr. Debra Andrist

Quantifying Characters: How Your Emotions Affect Box Office and Reviews

Zachary McKellar

Faculty Advisor: Dr. Grant Wiedenfeld

The Drag: Huntsville's Black Business District

Brittiany Minor

Faculty Advisor: Dr. Jeff Littlejohn

A Systematic Review of State and Federal Court Rulings on Texas Prison Conditions

Jazmin Palacios

Faculty Advisor: Dr. Harry Daniel Butler

Child Sexual Abuse and Treatments

Shyla Schmidt, Autumn Fogleman

Faculty Advisor: Dr. Naomi Timm

Understanding the meaning of Afro-German?

Asya Stoudemire

Faculty Advisor: Dr. Erivin Malakaj

The Americanization of Texas-German Language and Culture

Andrew Vierkant

Faculty Advisor: Dr. Ervin Malakaj and Dr. Aaron Hyams

One, Dos, Trois: Bilingual Proficiency and the Acquisition of a Third Language

Helen Wakefield, Diego Ibrra

Faculty Advisor: Dr. Helena Halmari

The Effect of Contrasting Music Genres on Creativity

Bradley Whittington

Faculty Advisor: Dr. Jerry Bruce

Session D

3:00-4:15

ROOM

206 Learning From Crisis

The Day the Earth Stood Still

Colton Haas

Faculty Advisor: Dr. Jason Enia

Lethal Assistance and the Ukraine Crisis

Heather Penatzer

Faculty Advisor: Dr. Jason Enia

The Battle for Tora Bora

Connor Manning

Faculty Advisor: Dr. Jason Enia

War, Politics, and Influence: The Effects of the Emancipation Proclamation on the 1862 Mid-Term Congressional Elections

Tamara Parsons

Faculty Advisor: Dr. Brian Jordan

ROOM

220 Communities: Social and Virtual

Athletes, Slaves, and Inner City Kids

Indya Finch

Faculty Advisor: Dr. Grant Wiedenfeld

What's Gender Got to Do With It? Presidential Campaigns through Social Media and Interviews

Kayla Brown, Tiffany Wimberly

Faculty Advisor: Dr. Heather Evans

Women in Saudi Arabia

Chase Miller

Faculty Advisor: Dr. Samar Zahrawi

The Effects of Ambient Air Pollution on the Houston Metropolitan Area

Luis Heras, Cassidy Stallworth

Faculty Advisor: Dr. Christian Raschke

ROOM

226 Teaching and Learning: Centers of Development

How Do You Consider Children's Development in Learning?

Rachel Ferguson, Bertha Montanez, Julie Mulkey, Katlyn Watkins

Faculty Advisor: Dr. Elizabeth Lasley

Learning Centers in the Early Childhood Classrooms

Alicia Kollman, Ashley Kollman, Sandra Roman, Hannah Smith, Tiffany Triola

Faculty Advisor: Dr. Elizabeth Lasley

Writing Tutor Morale: Employee Perceptions in the Academic Success Center

Maureen Reynolds, Catherine Stallard

Faculty Advisor: Dr. Jake Gebhardt

Suicidality Detection in Therapeutic Settings

Everett Moore

Faculty Advisor: Dr. Rick Bello

Session D

3:00-4:15

ROOM
232 Science: Exploring the Seen and the Unseen

Theoretical Guidance for Neutrino Interactions in Standard, Non-Standard, and Dark Matter Models

Matthew Breeding, Derek Johnson

Faculty Advisor: Dr. Joel Walker

Searching for Compressed Supersymmetric Spectra at the Large Hadron Collider

Kebur Fantahun

Faculty Advisor: Dr. Joel Walker

The Assessment of Interspecific Hybridization Between *Baptisia arachnifera* and *Baptisia lecontei* Using Sequence-Related Amplified Polymorphism (SRAP) Markers

Kayla Hankins

Faculty Advisor: Dr. Chris Randle

Synthesis, Characterization, and Stability Studies of N-alkyl Benzodiazaboroles

Micaela Steward

Faculty Advisor: Dr. Dustin Gross

ROOM
242A Health: Mind and Body

Children's Apparel for Medical Accommodations: Designed for Use with Pump, Catheter, or Port

Jessica Estrada

Faculty Advisor: Dr. Janis White

The Relationship Between Mental Disorders and Art as a Form of Communication and Expression

Makayla Drake

Faculty Advisor: Dr. Jamie Duran

The Prevalence of Anemia in Nutrition Students

Wesley Mayeux

Faculty Advisor: Dr. Simone Camel

Dying with Dignity

Lixin Zhang

Faculty Advisor: Dr. Christine Cardinal

ROOM
242B Film and Film Studies

Torn and Restored

Christopher Johnson, Justin Deffner, Marissa Matthews

Faculty Advisor: Dr. Elisa Herrmann

Who is Thomas?

Emily Jorgenson, Bethany King, Alyssa Lopez

Faculty Advisor: Dr. Elisa Herrmann

Quantifying Characters: How Your Emotions Affect Box Office and Reviews

Cobey Crosby, Zachary McKellar

Faculty Advisor: Dr. Grant Weidenfeld

Oral-Media Abstracts

Daniel Agey

Japanese Documents for Mongol History

The Mongol Yuan dynasty of China, under the leadership of Kublai Khan, attempted two invasions of Japan, the first in 1274 CE and again in 1281. Led by Hojo Tokimune, the Japanese withstood these curious attempts at maritime expansion. Many documents survive from this period; however, only a few have been translated into English. While these sources provide a wealth of information on the Japanese themselves, their usefulness for understanding Mongol history in the late 13th century has not been fully appreciated. Using a collection of sixty-five translated documents, this presentation will analyze how these sources can inform modern historians of the Mongols and their applicability to Mongol history.

William Bailey

Puritanism, Alcoholism, and Catholicism: A Historical analysis of the use of Christian Modelism from the Puritans to the Temperance Movement

In the year 1630 on a voyage to New England on board the Arbella, John Winthrop delivered the sermon entitled "A Model of Christian Charity" to his fellow Puritans. Winthrop used this speech to describe a potential city that would serve as a model to the rest of the world, a "City upon a hill, the eyes of all people are upon us." The result of this speech is a trend towards strict Christian Morality that reveals itself throughout the history of the United States from the Great Awakening to the Temperance movement, and even modern Fundamentalism. The purpose of this paper is to establish the concept of Christian Modeling, or the idea of creating a society based on Christian morality and ethics, as found in Winthrop's "Model of Christian Charity" sermon and apply it to a later historical event: the post-bellum Temperance movement of the 1890's to the 1920's.

Serena Barbieri

Cotton, Fire, and Pride: The Lives On and Off the Docks of the Members of the Galveston Screwmen's Benevolent Association, 1866 - 1885

On September 11, 1866, thirty-two cotton screwmen in the port of Galveston, Texas established the Screwmen's Benevolent Association (SBA), one of the state's first significant labor unions. The SBA helped Galveston's screwmen define the standards of their profession and forge a strong group identity that enabled them to challenge the economic society on the docks, a caste-like system segregated by occupation and race. Although recognized as one of the most powerful unions in Texas in the 19th century, scholarship on the SBA is scarce and limited by an assumption that the purpose of the union was defined solely monopoly and protectionism. This research aims to push through these traditional interpretive limitations by considering how the screwmen used the SBA to advance their social position off the docks, helping to develop and claiming leadership positions in what was to become a booming workingmen's city.

Corissa Barrow

Why Philosophy with Children?

Can children really do Philosophy? Amongst the traditional thinking, philosophy has been embarked to have a perception of not only complex ideas, such as those posed by Plato or Aristotle, but of the tedious literature work that is accompanied. During the 1970s, Dr. Matthew Lipman, began to investigate this by examining the use of a Socratic approach aiming to promote the development of critical thinking skills. The focus of this text is to further investigate such a question through a variety of claims and to put forth clarification against them. Beliefs that children are not able to do philosophy are based on assumptions about children, their ways of thinking, philosophy and implementation. My conclusion is that this idea does not only have significant consequences on education but that P4C creates opportunity to diminish such effects. Results suggest P4C does successfully achieve desired corollary effects, and that further implementation is needed.

Marissa Baumgartner

Poverty in the Eyes of Hannah More and Thomas Paine

I will be presenting on the perspectives of Hannah More and Thomas Paine had on poverty while drawing connections to perspectives on poverty today.

Hali Behrens-Russell, Madison McCluskey

Determination of the maximum inclusion rate of CLA in horses.

Conjugated linoleic acid (CLA) is a dietary fat supplement thought to provide health benefits like that of omega-3 fatty acids. The objective of this study was to determine the maximum inclusion rate of CLA in horses. Ten horses were fed soybean oil then CLA between 5.0% and 10.0% of the total concentrate diet for 15d, beginning

at 5.0% and increasing the supplementation level every 3d until significant refusals were observed. The GLM procedure in SAS was used to detect differences in refusals between oils and supplementation levels. Refusals were significantly higher when CLA was fed above 5.0% of the concentrate diet ($P < 0.01$) when compared to other supplementation levels. Results suggest that 5.0% of the total concentrate diet may be the maximum inclusion rate of CLA in an equine model; however, further study is needed to clarify individual variation and potential benefits of supplementing elevated levels of CLA in the horse.

David Bell, Justin Thompson

The Sacred Swords and Beowulf's Grip

Warriors around the world have cherished sacred weapons since they first were forged, and the 8th century Danes of the Anglo-Saxon epic *Beowulf* were no exception. A shining sword seemed magical amidst the mud and blood of daily life. The greatest of these battle-flames were reserved for, awarded, and bequeathed to the greatest of heroes. In this presentation we will focus on *Beowulf*, the first known epic hero of English literature. We argue that he transcends the cultural ideals of the sword-mad Danes through his immense physical strength. No blade of human forging could withstand his superhuman grip. Beginning with the tearing of Grendel's arm and culminating in *Beowulf* crushing the hilt of a sword in his hand, the poet of *Beowulf* uses this powerful grip to signify that his protagonist is the ultimate hero. Physical strength is still revered by warriors today, and weapons are still sacred.

Maggie Boyle

Daniel Borzutzky in Conversation with No Country for Old Men

In the first half of the Spring 2017 term, we were assigned a poetics project in response to Daniel Borzutzky's narration of an episode of *Speedy Gonzalez*. Borzutzky utilizes the incredibly obvious racist moving images to inform the narrative within his poem. Our project plays on this strategy by using the official trailer for the Coen Brothers' 2007 film, *No Country for Old Men* (based on the Cormac McCarthy novel of the same name). We made efforts to protect the emotional value of the scenes that were selected and spliced. We also made effort to uncover and clarify the more nuanced emotional episodes within the film which cannot be derived from the trailer alone; specifically, motives behind each character's choices in the film. Our film narration project uses an original poem, by the group members, in Daniel Borzutzky's style of poetry writing in his book *The Performance of Being Human*.

Clayton Bradshaw, Victoria Pantalion

A Streetcat Named Syria

This presentation centers on a collaborative poem written in conversation with Daniel Borzutzky's "The Performance of Becoming Human." "A Streetcat Named Syria" takes the form of a narrative poem complementing a muted Sylvester and Tweety cartoon in response to Daniel Borzutzky's reading of his poem for the University of Chicago. In Borzutzky's poem, he performs a film narration for an old *Speedy Gonzales* cartoon in order to create dialogue surrounding refugees and immigration. The authors collaborated through combing their versions of the narration in order to add to the conversational nature of both works. "A Streetcat Named Syria" demonstrates that violence and hatred between socioeconomic groups in the United States finds its roots in the mistreatment of people by a flawed governmental structure.

Clayton Bradshaw

Micro Reflections of the Macro: A Case Study in "Beowulf"

In literature, small scenes or structures within a book or story mimic the theme or structure of the entire work. Often, micro elements such as character or subplot reflect the macro, or the overall story. In *Beowulf*, these micro reflections take the form of digressions about good and bad kings, foils in the form of antagonists, and actions repeated throughout the work. These micro reflections help to establish and reinforce the meaning of the epic, making the critiques of Anglo-Saxon culture more coherent. By applying lessons learned about micro reflections in *Beowulf*, the messages presented in contemporary stories may also become more clear.

Matthew Breeding, Derek Johnson

Theoretical Guidance for Neutrino Interactions in Standard, Non-Standard, and Dark Matter Models

Neutrinos are currently at the forefront of several fundamentally important theoretical and experimental efforts. The discovery of neutrino flavor oscillation and the corresponding implication of non-zero neutrino mass indicates that the standard model of particle physics is incomplete. This frontier of beyond standard model physics is fertile ground for new investigations into the nature of dark matter as well as other fundamental questions. In the near future, neutrino detector technology will reach the energy threshold sensitivity required to observe coherent scattering for high flux reactor-generated neutrinos. By modelling theoretical event rates we are able to predict statistical significance levels for non-standard interactions once these detectors come online. The constraint or

observation of non-standard interactions, and the associated modifications to the expected neutrino scattering profile and rate will be vital to the estimation of backgrounds for future ultrasensitive dark matter searches.

Jonathan Brown

Green Card

My presentation for the conference program is covering my spoken word piece “Green Card”. The piece describes the book, *An Astronaut’s Guide to Life on Earth*, in correlation to my life experiences. The presentation will begin with an introduction, followed by the piece, and end with an analysis of the work. There will not be any technology necessary, unless I decide to display my work on a projector. At the very least, I will need a space to perform.

Kayla Brown, Tiffany Wimberly

What’s Gender Got to Do with It? Presidential Campaigns through Social Media and Interviews

Previous research on the effect of gender in elections has excluded the presidency due to the lack of a female nominee. The 2016 election, however, has given scholars an opportunity to examine how gender affects election coverage at the presidential level. This manuscript examines whether female candidates at the presidential level face unequal treatment in traditional media interviews, and whether they perpetuate those gender stereotypes on social media. We compare the traditional media interviews Donald Trump and Hillary Clinton gave between July 1st and Election Day, as well as the tweets they sent during the same time period. This allows us to test whether the two candidates were treated differently in interviews and whether they stressed different issues on Twitter.

Rachel Cox

Reviving “Raymonda”: Danced in Pieces, Towards Dancing the Whole

In this tumultuous time in society, the arts are needed more than ever to soothe, educate and innovate.

Raymonda, a classical ballet choreographed in Russia in 1898 by French choreographer Marius Petipa, offers an entertaining view of a Hungarian folk story. The ballet is a popular choice for both young dancers and large ballet companies presenting an evening of excerpts because of its showy, technically arduous steps. This practice of only showing the ballet in pieces has been the lifeblood of *Raymonda* in the United States; however, the ballet loses much of its substance in this truncated form. In order to keep alive both the richly historical significance of *Raymonda* and the significance and worth of the arts in 21st century society, I argue that *Raymonda* - the full ballet in all of its splendor - is worth the fight.

Jaren Crist

The Rights & Personhood of Artificial Intelligence

Artificial Intelligence (AI) was once merely an idea of pure science fiction. Due to modern advancements in technology, various forms of AI have become integrated into our daily lives. Naturally, as technology grows so will the sophistication of these AI programs. As these AI become more capable the question of their place in society becomes more important, namely should we grant AI personhood? Personhood is defined as the status of being a person. With being a person comes certain unalienable rights such as the right to not be property or the right to independence. In this paper, I address the criteria necessary for something to have personhood and argue that personhood should extend to AI.

Cobey Crosby

Quantifying Characters: How Your Emotions Affect Box Office and Reviews

This study aims to measure how an emotional connection between characters and the audience affects the general audience acceptance and critical ratings. We hypothesize that the existence of one relatable or likable character, whether good or evil, will automatically cause a better box office reception and higher overall audience approval ratings. The connection between audience and character is the most important aspect of a film, and the films that achieve such receive the most attention and appraisal from the general public.

Sarah Daniel

Codependency of Good and Evil in the Theology of Wordsworth and Blake

In a religious world of moral duality in which only absolute good and absolute evil are thought to exist, William Wordsworth and William Blake each present their own unique ideas regarding the codependence of what are often thought to be polar opposites on the moral spectrum. While Wordsworth presents the idea that neither good nor evil can exist absent of the other, Blake fabricates his own religious system which is founded upon the idea that moral extremes do not exist, but rather that both ends exist within every aspect of creation. The ideas of each poet firmly oppose “orthodox Christian teaching[s] in the Established Church of [their] time,” and this rejection of established doctrine, while still connecting to Christian scripture, forces their readers to reevaluate the legitimacy of the traditional church and turn toward inward reflection.

Cora Davis

The Traditional Apocalypse

This research paper will analyze the apocalypse myths in three separate mythological traditions: Hindu, Egyptian, and Norse. The three apocalypses – The Kali Age, Ragnarok, and the end of the world according to Egyptian belief – possess similar archetypes in their respective myths. I will analyze specific archetypes in each apocalypse in order to create an understanding of how three separate cultures shared ideals despite the lack of communication in the past.

Justin Deffner, Christopher Johnston, Marissa Matthews

Torn and Restored

Torn and Restored is a film that follows Harvey White, a former professional magician, after he has a falling out with his apprentice, Percy Black, an up and coming star. After an intense argument, Harvey loses his passion for magic, which bleeds over into his relationship with his girlfriend, Lily. When she finally leaves him, Harvey spirals into depression. With his life falling apart, Harvey struggles to spark his passion again and win back Lily.

Makayla Drake

The Relationship Between Mental Disorders and Art as a Form of Communication and Expression

The purpose of this presentation is to study the relationship between mental disorders and 2D visual art as a form of both expression and communication. In order to determine the relationship, I conducted interviews with experts in museums and galleries and cross referenced them with historical records to determine known artists in both ancient and modern times who were known to have a mental disorder such as ADHD, OCD, depression, etc. The works of these artists were compared and similarities between works were noted, as artists with similar symptoms have similar expressions or common themes throughout their pieces.

Shelby Dyson

The Princes and The Tower

In April 1483, King Edward IV died, leaving behind two young sons, the oldest of which was only twelve. He left them in the care of his brother, Richard III, until they came of age and could become the king of England. Sometime in July of 1483, the princes went missing and have never been seen again. I will analyze what could have happened to the princes and, if they were murdered, who might have done it.

Jessica Estrada

Children's Apparel for Medical Accommodations: Designed for Use with Pump, Catheter, or Port

Children who are required to use a pump, catheter, port, or similar medical devices due to a specific health condition such as diabetes, treatment for cancer, and/or heart conditions can feel stigmatized due to the obvious presence of such a device. The assumption is that normal-appearing clothing will help make these conditions more bearable and positively impact the children's self-esteem. A survey of the market reveals that there is limited market availability of apparel that combines functional and aesthetic aspects of clothing and, at the same time, would accommodate the need for concealing medical devices and therefore allow for a normal appearance for these children. The purpose of this study is to evaluate the market need for such clothing and explore the perception among parents and other caretakers, not just of the market need, but details such as price point, types of modifications, and the desirability of branding of modified apparel.

Kebur Fantahun, Ashen Fernando

Searching for Compressed Supersymmetric Spectra at the Large Hadron Collider

Searches for Supersymmetry (SUSY) at the Large Hadron Collider (LHC) in Electroweak (EW) final states are kinematically limited by softness of the leptonic scattering products in the regime of narrow mass splitting between the slepton and neutralino. We explore the feasibility of applying novel event topologies, including the Monojet and Vector Boson Fusion (VBF) profiles, in order to improve resolution of the final state. We consider a simplified Minimal Supersymmetric Standard Model (MSSM) scenario with neutralino dark matter and a mass gap from the sleptons of 40 GeV. In the VBF scenario, we enforce a final state topology of two jets and missing energy. In the monojet scenario, we require precisely a single very hard jet, which provides the remainder of the visible system with a substantial kinematic boost. In both scenarios, we require an opposite-sign same-flavor dilepton (electron or muon). We then optimize for significance of the signal to background with respect to a variety of additional kinematic discriminants, including MT_2 (S-Transverse mass), the reconstructed ditau (with mutual leptonic decay) mass, the visible dilepton invariant mass, the angular separation of leptons and jets from the missing momentum, and the angular separation of jets and leptons from each other. We find that good discrimination is possible with around 300 events per femtobarn of integrated luminosity.

Rachel Ferguson, Bertha Montanez, Julie Mulkey, Katlyn Watkins

How Do You Consider Children's Development in Learning?

This research study examined how teachers consider children's development in their learning. We interviewed ten different teachers (Kindergarten through third grade) and inquired how they considered children's development in which we asked five different target questions regarding play, assessment, differentiated instruction, peer and adult relationship, and parent's relationship. According to our results, we found that regarding play, teachers incorporate a wide variety of group games and guided instruction to promote children's autonomy. Regarding assessment, many teachers do use formal assessments to view the progress of their students, which is contradicting to our research. Regarding differentiated instruction, many teachers use collaborative groups and teach to each child's individual needs. Regarding peer and adult relationships, collaborative groups and a caring community were factors that support the peer and adult relationships. Regarding parent's relationships, communication and school functions were supporting causes for student's development and learning.

Indya Finch

Athletes, Slaves, and Inner City Kids

This presentation covers the representation of minorities, specifically Black Americans, as they appear in film. The presentation covers the typical roles set aside for people of color and how, outside of those roles, people of color are not represented and the effects it has on those who consume this form of entertainment, including whites and those who belong to minority groups. It also discusses the current position of the film industry and what they can and should do to improve on the system that produces segregated entertainment.

Indya Finch

Texas Revolution

The presentation is a documentary that focuses on the Texas Revolution but also challenges the narrative that history often takes. We learn of heroes and villains; however, if history is actually something we think should not be repeated, then we need the unbiased, unsanitized facts. It forces us to think about what really happened, and what were we taught. This documentary focuses on clearing away the heroic myths and relearning what we thought we knew, and asking of ourselves a simple question: was it worth it?

Mary Fisher

Hear Us Roar: Women, Dance, and Chicago

Imagine a fantasy world created from actual historical events. In my proposed presentation "Hear Us Roar: Women, Dance, and Chicago," I will invite the audience to examine the connections between *Chicago: The Musical* and the Roaring Twenties in American history. Premiering in 1975, the Broadway musical draws inspiration from a 1920s collection of newspaper articles. The historical elements of extravagance through economic growth, prohibition, and especially women's suffrage, materialize in the famous musical where women commit violent crimes and end up in prison. Now not only can women vote, but they also murder their husbands! By inspecting the history of the 1920s in America through Timothy Knight's book *Panic, Prosperity, and Progress*, Mary Wood's article "Women in Public Life," and Jeffrey Miron's and Jeffrey Zwiebel's article "Alcohol Consumption during Prohibition," among others, the interrelationship between the theatrical story of the musical *Chicago* and factual 1920s incidents will emerge.

Victoria Garcia

Heritage Learner Program-A Sam Houston Necessity

In Texas, 29.6% of students are Spanish heritage speakers, and 81% of Texas universities provide alternative language programs that cater to the needs of Spanish-speaking students (Woodard 30). In other institutions, second language learners and heritage language learners are mixed in the classroom, but research shows that such curriculum does not benefit heritage speakers explicitly (Woodard 8). This presentation summarizes the findings of my research on the learning needs of heritage speakers and the implementation of Heritage-track courses in Language Departments in the United States. Based on the seminal publications consulted, I am developing a survey with the goal to assess the specific needs of Spanish Heritage Learners at Sam Houston State University. Additionally, my presentation will cover the methodology I will apply to analyze the resulting data with the aim to create courses that respond to Spanish Heritage Speakers.

Charlotte Goodrum, Jill Taylor

Eat Local, Read Local: Exposing Everyday People to Poetry

Our project is an Academic Community Engagement Public Poetry Project based on Eat Local Read Local, which is in conjunction with National Poetry Month celebrated annually in April. Eat Local Read Local is a project that emphasizes the importance of supporting local food establishments and local authors. The purpose of our project

is to expose poetry to people who do not encounter poetry on a regular basis, people who do not like poetry and do not like it because they do not understand it and poetry that contains a message parents can share with their children. For our project, we will post and distribute written poetry in visible locations in a local Huntsville restaurant. We requested poems written in common, every day, family friendly language and poetry with a positive content. We solicited poems from Texas professional and student poets to make a connection between local people and local poets.

Colton Haas

The Day The Earth Stood Still

In 2008, the entire world felt the impact of the United States sub-prime mortgage crisis and subsequent crash. In this case study, we take a look at the famous, or to some, infamous story of the “Lehman Weekend”. A weekend in which the Federal Reserve made it clear that Lehman Brothers would not be receiving a federal bailout despite Bear Stearns receiving one just 6 months earlier. In walking through this story, we also analyze how these events relate to the rest of the crisis as a whole.

Sylvia Halfhill, Paula Tuck

The Similarities Between “The Ruin” and Hrothgar’s Heorot: They’re Not Just Another Beer Joint

The Ruin, a once magnificent, now lichen-stained rubble of a poem, and Hrothgar’s Heorot, the grand mead-hall of Beowulf, have glaring similarities, particularly in the ways in which they represent great pride. We intend to prove in this presentation that both structures, luxurious with finery and gold, were built for the Anglo-Saxon aristocratic warriors to meet and build comradery. At the same time, they were built as monuments to men who wanted to be remembered forever by history. We will further establish that the poets of these poems use these locations as symbols of the destruction of humanity due to human frailty and pride.

Kayla Hankins

The Assessment of Interspecific Hybridization Between *Baptisia arachnifera* and *Baptisia lecontei* Using Sequence-Related Amplified Polymorphism (SRAP) Markers.

The primary objective of this project was to assess directly the hypothesis of hybridization between two closely related species, *Baptisia lecontei* and the endangered *Baptisia arachnifera*. In the 1980’s, *B. arachnifera* was cultivated in an ex situ population housed at the Lake Louise Biological Field Station of Valdosta State University in an effort to prevent the species’ extinction. In 2005, however, morphologically unique plants exhibiting intermediate characteristics were discovered growing in close proximity to adult *B. arachnifera* individuals as well as near individuals of *B. lecontei* at the Lake Louise Biological Field Station. Thus, to test the hypothesis of hybridization, we identified Sequence-Related Amplified Polymorphism (SRAP) markers capable of distinguishing the two putative parental species. Our results will contribute to the understanding of hybridization within the genus *Baptisia*, which is known for its extensive natural hybridization, as well as address potential problems within ex situ populations of endangered species.

Luis Heras, Cassidy Stallworth

The Effects of Ambient Air Pollution on the Houston Metropolitan Area

This study investigates how different demographic groups living in the 9-county Houston Metropolitan area are affected by ambient air pollution. We collect demographic data, such as data on household income, race and ethnicity, and age structure obtained from the American Community Survey of the US Census Bureau for all 1,072 census tracts in the Houston metropolitan area for the years 2010-2014. We combine this information with data about criteria air pollutants from the Air Quality Monitoring System (AQS) of the US Environmental Protection Agency (EPA). The location of air quality monitoring stations is identified using geographic coordinates, and we merge pollution and demographic data by calculating inverse-distance weighted measures of criteria pollutants for each census tract for monitoring stations located within a given radius around the geographic centroid of the census tract. We visualize the air pollution concentrations along with the socioeconomic data using several maps.

Carla Hobbs

Sexual Abuse: Inadequate Resources Hinder Prevention

Childhood sexual abuse is a silent crime with very few incidents actually reported (BJS, 2015). In fact, sexual abuse is a prevalent public health issue throughout the United States and advocates strive to develop proactive programs. Unfortunately, many of these programs have failed or fallen short of their intended goals. With limited resources and inadequate proactive approaches, the initiative against child sexual abuse is staged for failure. This presentation will review several documented programs and approaches across the United States, including programs that encourage active involvement of the child’s parent(s), schools, and communities.

Darryl Idle

SQL Injection Log Manager

Over the summer my team and I conducted research to create an application to alert admins of SQL servers to possible Blind SQL Injection threats.

Kalee Irwin

Surrealism in a Material World: Where Design Meets Dance

Inspired by SHSU Dance Professor Andy Noble's work, "Portal", Dance Costume Designer, Barry Doss, mentored me through the design and construction of costumes that would embody the idea of surrealism. René Magritte and Salvador Dali, two of the most iconic surrealism artists, took ordinary odds and ends and deconstructed them to create art that reimagined the fashions of society. With their processes in mind, gathering research on surrealism helped me brainstorm how I could incorporate these same principles into my design. Costume design contributes to the process of creating the visual world that comes alive on stage. Through collaboration and research, I embarked on a journey to build costumes that added to the overall message that the choreographer envisioned.

Bradley Ivey

Woyzeck: Book Design

The craft of self-publishing has begun to escalate in recent years, prompting talented writers to take initiative in creating works of fiction, poetry and playwriting. This avenue gives authors more freedom with the design and aesthetic choices made in regards to the final publication. This presentation will be a display and description of the German play *Woyzeck* that was personally designed by Professor Nick Lantz and me. The play was adapted by Nick Lantz and was part of a *EUREKA* grant that involved three separate teams working on different aspects of the play. Every choice made in regards to the overall appearance of the book will be explained, including decisions made about type facing, fonts, book dimensions, the cover and other style choices. This project was an exciting and challenging task that asked both of us to solve problems not normally seen in play scripts.

Scott Johnson

Researching the Taxonomy of Bethylidae

Various parasitoid wasps are known to attack destructive pests of crops and forests. Bethylidae, also known as the 'flat wasps', have been recorded attacking important pests like the Emerald Ash Borer and Coffee Berry Borer. Unfortunately, we lack knowledge about the family, specifically about their taxonomy. Bethylidae suffer from sexual dimorphism, leading current literature to contain species descriptions where only males and females are known. Using molecular barcoding techniques, we can align morphologically dissimilar males and females as single species by building evolutionary trees. Our research included collecting from Texas Hill Country to the Piney Woods region, even expanding to parts of Louisiana. In total, over 200 bethylids were collected, and we amplified COI and 28s genes to build our evolutionary trees in which males and females of the same species are grouped together.

Emily Jorgenson, Bethany King, Alyssa Lopez

Who is Thomas?

Before Amanda Taylor was a famous actress, she was trapped in the euphoria of drugs. After an incident that left her scarred in more ways than one, she began to turn her life around. Years later, as her career reaches new heights, she is called to a set with a new up-and-coming director. While on set, she reencounters that very same nightmare. Will she seek revenge or once again become the victim?

Tyler Josefsen

Reading in 3D: Bringing a New Meaning to Beowulf and Harry Potter

What happens when the objectivity of mathematics is applied to the subjectivity of literature? Reading multi-dimensionally is the next innovative step in the continuation of my research on interpreting complicated literary works by applying various branches of mathematics. I will employ a combination of mathematical game theory and literary genre theory to identify texts, including major literary compositions, as either one-dimensional, two-dimensional, or three-dimensional. I contend that there are certain attributes across literature that, when present in a given work, force that composition to be viewed multi-dimensionally— and I call these "dimensional sub-characteristics." This presentation will focus on the types of literary works where math can be (and I argue should be) utilized. Through an analysis of the Anglo-Saxon epic *Beowulf* and the popular *Harry Potter* series, I will show how utilizing multidimensional theory revolutionizes traditional literary analysis by exhuming meanings within stories that may otherwise remain unseen.

Jacob Keddy

Introduction to Management Information Systems

The purpose of this research is to provide an introduction into the ideas of management information systems. Information systems are a growing facet of the business world. However, few individuals understand what information systems achieve. The first phase of research is to unveil the main ideas of information systems. The second phase is to create prototype databases in Microsoft Access and Excel. The final phase is to compare the databases created in their respected software. By introducing individuals to the ideas of information systems, more people will understand its effects on business and the everyday use of information systems.

Alicia Kollman, Ashley Kollman, Sandra Roman, Hannah Smith, Tiffany Triola

Learning Center in the Early Childhood Classrooms

This research is over learning centers in the early childhood (Pre-K – 3rd grade,) classrooms and their effects on the students in those classrooms. While every part of an educator's classroom has an effect of the students, having learning centers provide opportunities for the children to take control of how and what they are learning. Learning centers help develop all five of the developmental domains of the child and each offer their own benefit to the child. These centers also give the students a sense of autonomy and the ability to learn by doing.

Beverly Liu

Intersection Between Mandatory Reporting and Child Abuse

Mandatory reporting of child abuse safeguards against physical abuse, sexual abuse, emotional abuse, physical neglect, educational neglect, and emotional neglect. Professions required to report include health care workers, educational employees, criminal justice personnel, and child care professionals. The legal definition of child abuse differs from jurisdiction-to-jurisdiction, covering a diverse range of abuse and maltreatment. Lack of standardization causes problems, ranging from false arrest and malicious prosecution to failure to launch an investigation with ongoing child abuse. This paper reviews court cases involving mandatory reporting of child abuse, identifying important issues and underlying problems with the current system; it concludes with policy recommendations.

Victoria Mankanjuola

Floating or Falling? (Common Reader)

Why do astronauts float in the International Space Station? Do you know the answer? Are you sure? Think again. We have all seen videos of astronauts appearing to defy gravity as they float around in outer space and within the International Space Station. Even what we view as ordinary everyday habits such as eating, drinking, or brushing your teeth look a hundred times more exaggerated when you are in outer space. Though it does clearly appear that the astronauts are floating, could it be that they are actually falling instead? This essay attempts to show how gravity affects astronauts in the International Space Station in outer space as compared to Earth.

Connor Manning

The Battle for Tora Bora

A report on the military engagement that took place along the Afghan-Pakistan border in December 2001 between a mixed enemy force of Taliban and Al-Qaeda fighters and an indigenous Northern Alliance army led by American special operations professionals and intelligence officers, wherein the United States' battle plan allowed the escape of Osama Bin Laden from Afghanistan into Pakistan, where he would remain for more than a decade. This case study is intended for use in an International Relations or Conflict Studies classroom as a discussion tool and teaching example. It is part of a project aimed at producing multi-media focused, openly accessible teaching tools for Political Science educators. By showcasing the points of view of combatants and officials involved, as well as by giving brief historical background, the author hopes to provide a real-world example of the possible effects of political inaction and confusion on the outcomes of military operations.

Kirstie Mattos

Space Dream to Earth Reality (Common Reader)

After reading *An Astronauts Guide to Life on Earth* I was able to relay his message to my everyday life. It displayed determination and how dreams can come true, even when the odds are stacked against you.

Wesley Mayeux

The Prevalence of Anemia in Nutrition Students

Nutritional anemia remains a common global problem. Groups at high risk for developing anemia include strict vegetarians, those with chronic diseases, and those with poor dieting habits. Young adulthood is a time in a person's life when they experience independence and have more control over the foods they consume. As college students, they have difficulty maintaining healthy eating habits, even for those studying sciences related to foods

and nutrition. This study will explore the prevalence of anemia in FSN majors at SHSU and its relationship to their reported intake with a focus on food sources of iron. Anemia screening will be accomplished with the use of a non-invasive hemoglobinometer and self-reported dietary intake will be obtained using the Automated Self-Administered 24-hour Recall (ASA24®) system. Findings will be compared to the national prevalence of anemia reported by the National Health and Nutrition Examination Survey.

Kayla McCarns

A Comparison of Self-Esteem, Self-Control, and Substance Use Among Undergraduate Students

Previous studies suggest there is an association between self-esteem, self-control, and substance use among the college population. This study will compare self-esteem and self-control among undergraduate alcohol and drug users, specifically exploring frequency of binge drinking, number of drinks consumed in a typical setting, and any illegal substance use. The data for this study was collected through a systematic random survey of approximately 1,300 undergraduate students. Results will explore self-control and self-esteem as correlated with substance use, along with differences in age, sex, race, and sexual orientation of respondents.

Georgi McNease

Intervention Points for Post- Separation Sexual Assault

Despite extensive research on sexual assault and domestic violence, less is known about sexual assault post-separation. Post- separation sexual assault occurs when a perpetrator commits an act of sexual assault as a way to retaliate the end of a relationship. We will use secondary data from a study done by DeKeseredy which examined post- separation sexual assault in rural Ohio. We will also use the Clarke model to look at crime reducing techniques. The goal of this study is to identify intervention points for post-separation sexual assault. Intervention points can include both people and environmental factors.

Jeremy McPhail

Linguistic Ancestry

The aim of this presentation is to show the similarities of European languages prior to the middle ages. The information provided will reflect the linguistic dynamics of the time frame and demonstrate how dominant kingdoms influenced language and culture. The presentation will focus on a few words from Latin, Franconian and Germanic origin and how they have evolved and been re-purposed to suit different cultures. A few words that will be presented, such as 'tanner', will show how even grammar roles of words can change when adopted into another language, whereas words like 'Tante' will demonstrate how pronunciation is changed when adopted into another language. The presentation will explore history and the impact wars and politics had on shaping linguistic patterns on conquered and conquering regions.

Chase Miller

Women in Saudi Arabia

Often in Western Civilizations, foreign cultures and societies are mischaracterized or misunderstood due to ignorance or to fit certain socio-political agendas. Within this research, I seek to identify common questions and misconceptions made by the West, and present counter research and factual scientific evidence to contradict those claims. Research from The World Bank, The WomenStats Project, and Al Jazeera along with many more sources work to refute claims put forth by popular media outlets. These findings work to create a more balanced perspective of women's identity in Saudi Arabia, and implicates that the perspective of Saudi culture is misunderstood.

Abigail Miller, Shyon Motlagh, Nicole Rathwell

Linking Hydrology to the Abundance and Distribution of the Blue Crab (*Callinectes sapidus*) in a Complex Coastal Ecosystem

Coastal marshes of the Aransas National Wildlife Refuge (ANWR) are comprised of a unique hydrological system that is of critical importance to the ecosystem productivity, including the blue crab (*Callinectes sapidus*). Varying hydrological conditions will directly affect the movement and overall success of the blue crabs. In turn, blue crab abundance and distribution directly impacts the endangered whooping crane (*Grus americana*) which overwinters at ANWR and utilizes the blue crab as a primary food resource. The goal of this research was to simulate hydrological scenarios seen in the field through mathematical modeling and to predict how changing conditions may impact the whooping crane's access to the blue crabs during the winter season. The modeled landscape acts as a platform in which more data and algorithms can be added for future work in more accurately predicting how blue crab distribution in varying hydrological scenarios will ultimately affect the endangered whooping crane.

Cheyenne Moore

Female as “Abject” and the Suppression of Female Sexuality in Ancient Mythology

The following comparative analysis will apply feminist, psychological, and anthropological theory to four mythological traditions in order to examine hypermasculinity, the repression of female sexuality, and the female as “abject.” The Apache myth, “The Vagina Girls,” demonstrates patriarchal dominance over female sexuality, which is represented through horrifying female genitalia. The Aztec-Mexica Coatlicue, whose iconography includes “abject” imagery such as snakes and human hearts, is overthrown by male hegemony. In the Christian tradition, the birth of Jesus suggests purity as morally imperative for the female, which is emphasized through the dominance of the patriarchal God. Finally, the Indian myth of Rama and Sita also displays an emphasis on female purity, delineating a system of justice reliant on the ethical abjection of female sexuality.

Everett Moore

Suicidality Detection in Therapeutic Settings

This project attempts to offer an empirical rationale for the study of deception detection in the process of suicide risk assessment. Current practices, scales of measurement, and training programs are discussed, as well as shortcomings of each. A three-phase methodology is proposed that will collect qualitative data and cluster them into items that can be quantitatively assessed. Potential results and implications are also discussed.

Brittany Page

Othering in Joseph Conrad's Heart of Darkness

Throughout the colonization and imperialization of Africa by the British Empire, a sense of “othering” was established by the white Europeans to distance themselves from the Africans they were dominating over. The concept in turn was applied to the literature of the time, and following generations of literature that wrote over the same subject matter. Joseph Conrad’s modern novel *Heart of Darkness*, not only demonstrates “othering” by race, but also in gender and even among fellow countrymen. By studying the different “othering” facets that shape *Heart of Darkness*, we can garner the universal truth in that each of us are alone in this world.

Tamara Parsons

War, Politics, and Influence: The Effects of the Emancipation Proclamation on the 1862 Mid-Term Congressional Elections

This paper analyzes the mid-term Congressional elections of 1862. Previous historians have emphasized the drubbing that Republicans took in the elections, most often observing that the party staved off defeat by holding on—narrowly—to control of Congress. By analyzing election data, newspaper archives, manuscripts, civilian letters and soldier diaries, this paper argues that the Republicans won because Democratic voters opted to stay home. Closely scrutinizing the statistical analyses, this paper uncovers new perspectives on the wartime mid-term Congressional elections that occurred in 1862, during a terribly costly and complex war: The Civil War. Mark Neely Jr., for example, has started asking the questions of the effects of those mid-term elections on the Civil War, and admits that there is a large gap in literature about the 1862 mid-term Congressional elections. The long-term effects of the elections as a whole and the meaning for Civil War Americans are the focus.

Heather Penatzer

Lethal Assistance and the Ukraine Crisis

During the Ukraine Crisis in 2014, a civil war broke out in the Donbas region of eastern Ukraine. The civil war became an event of international importance when Russia began providing the rebels with arms and military personnel to use against the Ukrainian government. Russia’s involvement in Ukraine’s civil war threatened European security, making a response by the United States necessary. One of the options on the table was providing the Ukrainian government with defensive weapons to deter Russia’s aggression. This paper examines the international and domestic pressures placed on U.S. President Barack Obama, and the implications of his final decision to refuse to send lethal defensive aid to the Ukrainian government.

Sean Pruetz

Dadaism and the KPD

Dadaism as an art style began in Zürich during WWI as a reaction against the fragmentation of a war-ridden Europe. As it developed in Berlin, the art (notably anti-art, which denied the preexisting art customs) became a politicized and propagandized movement. This presentation aims to clarify the main players in Berlin Dadaism during the interwar years, as well as clarify the partisan and generic political links which manifest themselves in the Dadaist exhibitions. I will be focusing on the first Dada exhibit in Berlin in 1920, and I will give an in-depth historical analysis of key players George Grosz and Otto Dix in their political contributions to the genre as it evolved within Berlin’s social and political influence.

Miranda Rehak, Niko Smith

Good Vibrations

The video poem we have is constructed as a response to the current political and social climate that we as a nation are entering. As a team, we wish to meet the negativity going around in our world by explicating some of the little things that make us happy when we feel as if the conflicts we face are too much for our individual capabilities. After we present the poem, we will discuss some of the images we chose for the video as well as discuss the structure of the poem in that our collaborative efforts incorporated both lyrical elements and spoken word delivery/development into a piece to show how coming together in a positive means of creative self-expression can provide a necessary cathartic effect for individuals. This catharsis is our healing and our unification in a time where we are constantly being divided by authoritative outlets around us.

Sara Reyes

Daniel Borzutzky in Conversation with No Country for Old Men

Our film narration project uses an original, collaborative poem in conversation with Daniel Borzutzky's poetry from his book *The Performance of Being Human*. We will be presenting a creative project in response to Borzutzky's film narration of a Warner Bro.'s Merrie Melodies episode called "Speedy Gonzalez." Our project plays on the strategy of a standard cinematic commercial by using the official trailer for the Coen Brothers' 2007 film, *No Country for Old Men* (based on the Cormac McCarthy novel of the same name), to give the audience a sense of what our original poem and Daniel's book is about without giving away content in regards to plot or character development. We viewed several trailers for the film and agreed that the one attached here best represented the ideas and thematic elements we decided to write about; Borzutzky utilizes incredibly obvious racist moving images to inform the narrative within his poem.

Maureen Reynolds, Catherine Stallard

Writing Tutor Morale: Employee Perceptions in the Academic Success Center

Our presentation offers an overview of tutor perceptions of morale as it relates to working in the Sam Houston Writing Center at the Academic Success Center. We created a qualitative survey to evaluate the effectiveness of our tutor work area (based on usefulness, comfort, communication, recreation, and productivity) and compiled our findings on this to present later. Additionally, we wanted to gain qualitative feedback on how tutors feel they are valued as employees and how their concerns are heard, in regard to fellow tutors and superiors. After data analysis, we developed and discussed suggestions on ways to improve this division of the Academic Success Center, specifically in a way that would positively affect tutor morale and maintain a distraction-free work environment, as well as increase open communication and employee satisfaction.

Mary Richards

Assessing the Taxonomy of Sexually Dimorphic Wasps Using DNA Sequences

Although parasitism is detrimental to a host, the ecological interactions between host and parasite can benefit humanity. *Dryinidae* is a family of parasitoid wasps that attack leafhoppers, which are often crop pests. Currently, the identification of *Dryinidae* is difficult due to sexual dimorphism, but they have potential to be used as a biological control. The aim of this project is to determine if mitochondrial Cytochrome Oxidase Subunit I (COI) and nuclear 28s genes can be used to solve the problem of sexual dimorphism and correct identification. Wasps were collected in southeast and central Texas throughout 2016 to collect a total of 150 specimens. Since then, DNA extractions, PCR amplifications, and DNA sequences have been obtained. With this data, we can analyze if parsimony, likelihood, and Bayesian phylogenetic tree building methods will align male and female *Dryinidae* of the same species as sister taxa, resolving sexual dimorphism identification problems.

Emrah Sariboz

Acquisition of Browser Artifacts from Android Devices

Providing quality of information in a quick manner is getting more doable each day with elaborating new web technologies, such as HTML5. Web storage, a new feature of HTML5, aims to store crucial and meaningful amounts of client-side data in a persistent and secure manner. This project will focus on investigation (locating) and extraction of web storage data in Android platform to be used for web forensic investigation. Obtaining forensically important data has always been challenging for investigators because of the wide variety of crimes and technologies used in a crime. With this research work, we aim to provide the details of web storage locations and used techniques in Android platform. Moreover, automatically retrieving web storage data and converting it to a readable format are other objectives of this work so that the forensic investigators will save significant amount of time during their investigation.

Garrett Sheaffer

Daniel Borzutzky in Conversation with No Country for Old Men

Our film narration project uses an original, collaborative poem in conversation with Daniel Borzutzky's poetry from his book *The Performance of Being Human*. We will be presenting a creative project in response to Borzutzky's film narration of a Warner Bro.'s Merrie Melodies episode called "Speedy Gonzalez." Our project plays on the strategy of a standard cinematic commercial by using the official trailer for the Coen Brothers' 2007 film, *No Country for Old Men* (based on the Cormac McCarthy novel of the same name), to give the audience a sense of what our original poem and Daniel's book is about without giving away content in regards to plot or character development. We viewed several trailers for the film and agreed that the one attached here best represented the ideas and thematic elements we decided to write about; Borzutzky utilizes incredibly obvious racist moving images to inform the narrative within his poem.

Treston Smith

As Derrida, as Lewis, as Abraham

The goal of this paper is to understand the conflicting views of C. S. Lewis and Jacques Derrida as they pertain to the relation between giving a gift and an economy. In this context, a gift is something that is selflessly given without expectation of reward while an economy is when something is received as a result of something being given. The question in this debate concerns whether or not a gift can still be counted as a gift if the giver receives something in return, even if the giver does not expect a reward (and even if what is received is the same thing that is given up). The discussion looks at three instances of something being given and received—Love, Forgiveness, and Trust—to see whether or not the giving and receiving of these gifts constitutes an economy that nullifies the gift.

Micaela Steward

Synthesis, Characterization, and Stability Studies of N-alkyl Benzodiazaboroles

Diazaboroles, a type of boron and nitrogen containing heterocyclic compound, possess interesting optoelectronic properties. They are of interest because they have the potential to undergo dynamic covalent exchange, which gives them the ability to self-correct or reverse bond formation during the creation of large organic molecular architectures or covalent organic frameworks (COFs). COFs are a type of highly organized porous organic based material with strong covalent bonds, which has been synthesized using dioxaboroles, boron and oxygen containing heterocyclic compounds. Diazaboroles are thought to be more stable than dioxaboroles, and the study of these nitrogen-containing derivatives may lead to further functionalization via N-substitution. We have undertaken studies involving the synthesis of N-alkyl benzodiazaboroles using various N-alkyl-ortho-phenylenediamines via condensation reactions with phenylboronic acid. Subsequent equilibrium studies were carried out with successfully synthesized N-alkyl benzodiazaboroles. Finally, the ability of N-substituted benzodiazaboroles to undergo dynamic covalent exchange with N-alkyl-ortho-phenylenediamines and phenylboronic acids was investigated.

Kaitlin Tademey

A New Polynomial Invariant for Unoriented Links

Knots are finite, closed curves in space. A link is a finite disjoint union of knots. Knots and links can be distinguished by using invariants, which help distinguish one knot or link from another. The Jones Polynomial is a Laurent polynomial invariant that distinguishes knots and links of various orientations. However, links of the same components with different orientations have different Jones Polynomials. I will be discussing a new polynomial invariant my collaborators and I have created to alleviate this problem. We call this polynomial the U-Polynomial. I will discuss some properties of the U-Polynomial, using established properties of the Jones Polynomial as a basis.

Kianna Taylor

The Uprising of the Battle Goddess

This paper will examine the role of battle goddesses in three mythological traditions: Indian, Celts, and Greek. The appearance of battle goddesses makes an interesting presence. Morrigan arises from Irish culture as a goddess of war, death, destruction, and lust. Athena presents herself in myth as well as literature as a goddess of wisdom and war, shooting from the head of Zeus, fully armed and defeminized. Durga is a representation as of Siva, a God in the Hindu religion in the form of a fierce warrior. These are female beings displaying masculine characteristics through their sexuality and place in war. This paper will analyze how these beings transcend gender roles as well as the juxtaposition of myth portrayals and societal values. It will also look at the development of the Battle goddess archetype in myth culture and their role in society by specifically looking at Morrigan, Athena, and Durga.

Lixin Zhang

Dying with Dignity

Death is one of the most fearful things an individual has to face. While several of other developed countries have legalized physician assisted dying, this issue remained controversial in the United States. This is a PowerPoint presentation that briefly introduces different choices available for patients when they are facing end-of-life decisions. It reviews two types of end-of-life care services, hospice care and physician assisted dying. It evaluates and compares their advantages and disadvantages, then illustrate different states' laws and litigations about them. Finally, the researcher's finding and where he stands at on this debatable issue.

Poster Abstracts

Daniel Agey, Rebecca Roberts

Beowulf in Eighth Century Anglo-Saxon England

Scholarship using evidence based on language and style has placed *Beowulf's* composition date to the first half of eighth century. The Anglo-Saxon kingdoms of this time shared overlapping familial ties, rivalries, and competition over thrones and land. Yet, in the poem and eighth century Anglo-Saxon England, order and stability are tied to singular individuals, with the possibility of collapse ever present after a king's death. The stability of political and social institutes are, in both cases, dependent on an individual, instead of being vested in a collective entity that would retain the stability of a king's death. Thus the epic comments and critiques the political realities of this time period, which would indicate that this date for the composition of *Beowulf* fits within the historical context. In this poster presentation, we will illustrate how the epic's recurrent theme of kingship and governance reflects these same ideas in Anglo-Saxon England.

Devin Anderson, Kendall Mehlhorn

The Relationship between Isokinetic and Field Test Measures in Collegiate Track Athletes

Hamstring strain injuries are one of the most common sports injuries, especially in sprinting sports (Liu, Garrett, Moorman, & Yu, 2012). Hamstring strength imbalance quantified via hamstring strength asymmetry or by a hamstring to quadriceps ratio is a commonly proposed risk factor for hamstring strains (Liu, et. al., 2012; Freckleton & Pizzari, 2012). Knowledge concerning the relationship among hamstring to quadriceps isokinetic ratios, speed, and power in sprinting athletes can assist in the development of training protocols and injury prevention strategies.

Jordan Anderson

Persuasion: The Power of DVD Plot Synopses

Movie synopses on the backs of DVD cases use many different types of language, grammatical choices, and methods of persuasion to convince people to buy a movie. Seeing our favorite actors on the cover or recognizing one of them because of an award they might have won for another movie helps persuade us to buy a DVD. This poster will examine these different rhetorical devices used in DVD synopses. The presentation of this poster will explore why tools such as grammar choice and sales techniques, as well as visual aids like screenshots and special features menus, are used to convince us to purchase something we otherwise might have looked over.

Dakota Bales

Meditation and Athletic Performance

For an athlete in the sports world, there is pressure from outside variables that can potentially cause internal pain. For the purpose of this paper, a 3rd person perspective, including the view from outsiders such as coaches, and how it impacts an individual psychologically will be compared to a 1st person perspective, including one's own thoughts and feelings, as they simultaneously clash with one another. How these two views impact performance, how to minimize psychological pain with meditation, and how this comes into play in bettering an athlete's performance will be discussed. It will be argued that meditation, which is a conscious calming of the mind, can help the athlete train their mind to have the strength to increase their tolerance of the 1st and 3rd person perspectives clashing, therefore minimizing the psychological pain that can negatively impact their athletic performance.

Terry Ball, Anne Marie Bledsoe

Effects of Climate Warming on Tadpole Feeding, Growth, and Waste Production

Understanding how climate change affects ecosystems remains one of the greatest challenges for scientists. According to projections, the average temperature of the earth may increase by as much as 5.8 °C at the end of current century. Tadpoles occur across a variety of freshwater habitats and are important consumers in aquatic ecosystems. As ectotherms, their feeding activity is tightly coupled to their metabolic rate. Under a warmer climate, the tadpole metabolic rate is expected to increase which should increase food consumption, growth and waste production. In laboratory experiment, we measured nitrogen and phosphorus excretion of tadpoles at 5 temperatures (15 °C, 20 °C, 25 °C, 30 °C, 35 °C) to test our prediction that climate warming will increase metabolic rate and waste production of tadpoles. This experiment allowed us to predict how climate change may alter consumer-mediated nutrient contributions to aquatic ecosystems by demonstrating the effects of increasing temperature on waste production of tadpoles.

Sarah Bivens, Lauren Rudie

The Use of Human Femora in the Estimation of Postmortem Interval

To determine postmortem interval (PMI), researchers rely on bacteria-driven stages of decomposition. The estimation of PMI focuses primarily on insect succession and the external microbiome. These practices are influenced by external environmental conditions such as temperature and moisture levels. However, the marrow cavity inside femora is relatively protected from the external environment. Thus, protection of organic substrates within bone and limited nutrient availability relative to decomposing soft tissue suggest that microbes require more time to invade the bone matrix. If bacterial succession inside femora is consistent, then cataloguing this shift through time will allow a more accurate estimation of PMI for extended decomposition. To test this hypothesis, three human cadavers were placed in May of 2016 at the Southeast Texas Applied Forensic Science (STAFS) Facility at Sam Houston State University. A medical- grade bone marrow biopsy tool was used to collect samples from the left femora of each cadaver. The microbiota collected will be measured by deep sequencing of 16S rRNA genes. Overall communities discovered will be compared to determine the relationship between the microbial communities identified in each cadaver. The results of this study could revolutionize how law enforcement and forensic scientists estimate PMI.

Clayton Bradshaw

Maps as Literature

In a historical context, maps have shaped our understanding of the world. Early cartographers employed visual rhetoric such as symbols, political and cultural boundaries, and representations of *Axis Mundi* to teach Europeans the placement, culture, and influence of indigenous American populations. This poster looks at four maps from the early European exploration of the Americas in order to demonstrate these rhetorical techniques in the context of literary understanding. The Memije Map, Cortés Map, White-Debry Map, and Ogilby-Moxon Map each lead us to an understanding of historical racial and imperial attitudes, the life of indigenous populations, and physical situations of various tribes and colonists. Maps informed the mapmakers' contemporaries on the New World, as well as modern understandings of those views, in the same manner as the written word, performing the same function as written literature.

Elizabeth Brindza

Interactions Between Penned and Native Whitetail Deer

This project is to describe the interaction between pen raised whitetail deer and native deer living outside of the fences. While doing this project, we wanted to see if we could better understand interaction and how we could stop the spread of infections such as Chronic Wasting Disease. This research took place on a private wild game ranch in Bedias, TX. During the time of October-February which is the rut for most deer here in Texas, several game cameras were set along the outside of the pens to catch any animals passing by and any interaction that took place.

Will Burns, Cameron Chadinha, Britt Mitchell, Joshua Smesny, Shelly Tran

Using Magnetic Susceptibility to Determine the Age of Drill Cores from the Mozambique Channel

The South Atlantic Petroleum Company donated drill cores from 18 sites cored in October 2013 in the Mozambique Channel off Madagascar by the RV Marion Dufresne. The cores contain sediments (mud) from the bottom of the seafloor, which record the recent geologic history of the region. This study focuses on a 20.75-m-long core collected at Site MD13-3506. We measured magnetic susceptibility every 2 cm along this core in order to date the sediment by correlating variations in susceptibility to well-dated global records of climate change, such as the marine oxygen isotope record. We find that the susceptibility correlates well with oxygen isotope variations, with higher susceptibility values occurring during colder "glacial" stages of Earth's history and lower values occurring during warmer "interglacial" stages. The correlation indicates the average deposition rate was about 5 cm/ka and the oldest sediments are about 400,000 years old.

Meghan Calloway

Car Companies Becoming Family

With each passing month a handful of new cars are advertised on easily accessed media sources for the viewing of consumers. Although the messages within these advertisements seem to be straying further away from selling cars and more towards telling stories. Manufacturing companies are now trying to add more than just their products into society's personal life, but the company themselves as well. Meaning car companies are trying to become extremely personal with their customers and become household names and trusted like family members besides just the provider of an automobile. This presentation will dissect and analyze manufacturing company's media advertisements to display the rhetorical devices and strategies of said advertisements to get their metaphorical foot into the doors of consumer's hearts.

Timothy Child

Clowning Around in Politics

Comedians can broach subjects that those in the political sphere may not be able to without negative repercussions. This poster focuses on how comedians like Jon Stewart can sway the mood of the audience in the political scene by examining the rhetorical devices used. The act of comedy can impress an idea on someone in a more lasting way. By making a joke, or a pun, out of a potential politician's name, the comedian can establish an image that the politician may not want. Alternatively, comedy can take away tension from a subject by helping people see it in a new light. If the comedian jests about an unpopular law, people may start to view the law in a better light. In this sense, comedy is a great tool to sway the opinions of others.

Olivia Clark

Distinct Patterns of Skull Morphology Among Australian Legless Lizards (*Aprasia*: *Pygopodidae*)

Aprasia is a genus of miniaturized pygopods from Australia that indisputably exhibit the most extreme skull morphologies for any known gecko. The genus today includes 14 species of fossorial or semifossorial lizards, but only three of them have been studied osteologically. Using XRCT scans of 27 specimens, we found that the skulls show two alternative construction patterns. When these patterns were mapped into a concatenated tree of mtDNA and nDNA, we found two distinctly different patterns: 1) A basal pattern where the braincase is supported by the pterygoid bones via the epipterygoid (as in the vast majority of squamates) and 2) a derived pattern where the braincase contacts the frontal bone via a hypertrophied parabasisphenoid rostrum, with no support of the pterygoids due to a reduction of the epipterygoids. This second pattern is present today exclusively in Western Australia, while the basal patterns are found throughout the country.

Yessica Colin

When Does Childhood Abuse Relate to Conduct Problems Among Immigrant Adolescents? Examining the Role of Peer Relationships

Although associations between conduct problems and positive peer relationships have been well established, little research has been done in newly immigrated adolescents, a population that reports high rates of childhood abuse (Musalo, Cernadas, & Frydman, 2015). This study aimed to examine the relation between childhood abuse and conduct problems at different levels of peer relationships in 86 recently immigrated adolescents. Peer relationships were measured with the Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987), childhood abuse was measured with the Adverse Childhood Experiences scale (ACES; Felitti et al., 1998), and conduct problems were measured with the Strengths and Difficulties Questionnaire (SDQ; Goodman, 2001). Results showed that the relation between childhood abuse and conduct problems differed across levels of peer attachment and gender. These results portray the importance of peer relationships on a highly victimized sample with conduct problems, and suggest a need to promote positive peer influence.

Krystal Dabney

Musical Gods and Sexual Desires

For centuries mythical gods were the explanation of every natural and physical occurrence. Zeus's anger would be the reason behind thunderstorms, and Hera's wrath would be the cause of why young women were turned into cows. With this research project, I hope to show that God is aligned with music and dance, are the representation of sexuality and desires.

Kristin DeBone

REE Distribution in the V-Intrusive of Central Arkansas

The "V"-Intrusive has been interpreted as a series of late Cretaceous syenite dikes with a coeval hydrothermal vein (D. R. Owens, 1967). These dikes are exposed adjacent to Lake Catherine, some 4 miles west of the well-known Magnet Cove intrusive complex in Arkansas. Assays from the 1960's show this vein to be gold-bearing. This study was initiated with the goal of identifying the mineral phases associated with the gold. The rock texture, dominant minerals, and elemental composition of minerals were determined using a combination of Polarized Light Microscopy, Scanning Electron Microscopy equipped with an Energy Dispersive Spectrometer and Electron Microprobe. The vein is brecciated and includes the following minerals: chalcedony, quartz, fluorite, pyrite, and a notable amount of rare earth element bearing minerals bastn esite and synchesite. We have not been able to identify any gold in the available samples, however the high concentrations of REEs may prove to be valuable.

Heather Deel

Bacterial Composition During Human Cadaver Decomposition in Southeast Texas

The microbiome of a decomposing human body is diverse and continuously changing throughout decomposition.

By sampling the core microbiome of decomposing bodies continuously over a period of time, patterns of bacterial compositions can be established. These patterns can be used to create models that represent the presence of certain bacteria throughout decomposition. This can be used to generate a model for time since death. Twenty-four donated human bodies, two bodies in every season, were placed unclothed and in standardized positions outside in a fenced area. They were consistently swabbed for the microbiome on specific body sites for a specified length of time. The operational taxonomic units (OTUs) were used to identify the bacteria and generate a model of the core microbiome. This was also separated based on season. As decomposition progressed, the number of different OTUs dramatically decreased. There was also a significant difference in OTUs present between each season.

Amanda Downs

The Effect of Acculturation On Psychopathology in Displaced Immigrant Youth

Many Latino youth immigrate to the United States every year. This on-going study aims to examine the effects of acculturation on the mental health of displaced high school students ($n = 28$) from Central America. Using the youth self-report and caregiver self-report Short Acculturation Scale for Hispanics, Social, Attitudinal, Familial and Environmental Acculturative Stress Scale for Children, and the Strengths and Difficulties Questionnaire, we examined the relation between differences in acculturation between caregiver and child, and the child's mental health, taking into account acculturative stress, age, and gender. Preliminary results suggest there is a relation between acculturative gap and mental health problems in Latino youth. Specifically, females who had larger acculturation gaps had more emotional problems when they reported high levels of acculturative stress, and more externalizing problems when they reported low levels of acculturative stress. This study aims to better understand how to provide help to displaced immigrant youth.

Madison Duane, Catherine Stallard

Examining Life Satisfaction and Alcohol Use Through Individual Variation in Daily Religious and Spiritual Activities

This study will examine individual variation in daily religious and spiritual activities and how these relate to satisfaction with life and alcohol use. Religious activities are defined as outward actions such as attending church services. Spiritual activities are defined as internal actions such as an individual's belief in a higher power. It is hypothesized that on days in which individuals report higher religious and spiritual activities they will exhibit greater life satisfaction and lower alcohol intake. Keywords: religion, spirituality, life happiness, alcohol

Shelby Dyson

What Gets You to the Afterlife

Different cultures exemplify different characteristics in their society. These characteristics determine where a person goes after death. Looking at Norse, Native American, Celtic, and Greek mythologies, I plan on figuring out which characteristics they exemplify and determining how those characteristics affect who goes to the afterlife.

Renee El-Krab, Karima Shehadeh

Change Blindness: Evaluating Attentional-Based Processing Within the Own-Race Bias

The own-race bias refers to the finding that individuals are better able to recognize faces of their own race rather than faces of other races. Meissner and Brigham (2001) documented numerous studies, which demonstrated that individuals' memories are better for own-race than other-race faces. While numerous studies have shown the own-race bias to be a robust phenomenon, there is little agreement regarding the explanation for this effect. The purpose of the current study was to evaluate the own-race bias using an attentional-based approach rather than a memory-based approach. Past studies have evaluated face recognition in order to study the memory-based factors involved in the own-race bias. We utilized a change-blindness "flicker" paradigm to evaluate the attentional-based mechanisms that may lead to an own-race bias. Change blindness refers to the tendency for individuals to fail to notice significant changes between two visual scenes that are continually altered (Rensink, et al. 1997).

Lariat Emley

Does Class Time Influence Student Performance?

The preferred class time vary among students. However, does the class time influence the student's performance? This study used GPA and student performance data from four sections of a course (Animals and Society; ANSC 2360) taught by the same instructor to analyze the influence of class timing on student performance. Multiple linear regression with dummy variables for class timings and SHSU GPA as explanatory variables were used to assess the impact of class timing on student performance. The regression analysis showed that student performance was not significantly influenced by class timing. However, the SHSU GPA significantly influenced the student performance. Students with >3.5 SHSU GPA (average score = 94.58%) and the students with 2.5-3.5 SHSU GPA (average score = 89.70%) performed significantly better than the students with <2.5 SHSU GPA ($p < 0.05$).

Transfer students (no SHSU GPA) performed on par with the least performing student group (<2.5 SHSU GPA).

Cherese Evans

Rogersville - A Historic Neighborhood In Huntsville

This poster presentation explores the people, places, and events that shaped the historic Rogersville neighborhood in Huntsville. Founded in the post-Civil War era, this African American neighborhood was named for Micajah C. Rogers (1795-1873), a white landowner who sold property to the town's black residents. Prominent African American figures including Joshua Houston, Memphis Allen, C.W. Luckie, and Jane Ward lived or worked in the area. The first African American Baptist Church in Huntsville was founded in this neighborhood, as was the Samuel Walker Houston High School.

Alexis Farmer

Heavy Metal Tolerance in Rhodobacter Sphaeroides

Heavy metal pollution is a worldwide problem that negatively affects the environment including air, water, and soil. Exposure to some of these heavy metals poses serious threats to health such as bone loss, kidney damage, and varying types of cancers. Although industrial and chemical methods of remediation exist, bioremediation appears to be the most cost effective and ecofriendly method. Certain bacterial species, including *Rhodobacter sphaeroides*, have demonstrated the ability to withstand high concentrations of certain heavy metals, thus serving as an apt organism to study heavy metal tolerance. The objective of this study was to characterize the heavy metal tolerance mechanisms of *R. sphaeroides* in order to increase its potential for bioremediation purposes, particularly in gold contamination. This was accomplished by performing growth curve analysis under aerobic and photosynthetic conditions in varying concentrations of gold chloride. Transmission electron microscopy was also performed to identify the location of the gold particles.

Kevin Fogelquist

Impact of an Animal Science Course on Student's Perception on Animal Issues

Animals play several important roles in our society. There is rising public concern over some practices adopted by the livestock industry that may cause distress to the animals, although the producers view these as efficiency enhancing practices. This study used a survey instrument administered to the students in the Animals and Society (ANSC 2360) class in Fall 2014 at the beginning (Pre) and at the end (Post) of the semester (n=99) to evaluate the knowledge on various livestock industries and perception on animal welfare related issues. Paired t-tests revealed that the level of knowledge of students on veal, egg, and pork production industry and sport and performance animal industry significantly increased after the class. Students' perception on industry practices to cause distress in animals changed only for the chicken industry (p<.05) after taking the class, showing significant decrease. More female students perceived animals to have feelings compared to male students.

Autumn Fogleman, Shayla Schmidt

Child Sexual Abuse and Treatments

Childhood sexual abuse is a global concern. The Center of Disease Control reports that about 686,000 children experience abuse, and nine percent of those children are victims of sexual abuse. Childhood sexual abuse not only presents problems because it impacts the child's adjustment, but if left untreated, it can lead to everlasting effects and even present opportunity for repeated abuse cycles. Play therapy is a developmentally appropriate treatment that gives children a sense of power, a voice, and a way to cope and understand their experience. This presentation will discuss specific techniques such as Child-Centered Play Therapy, group play therapy, and family therapy that are available to help children victimized by sexual abuse.

Anne Galloway

Fake News

President Trump may be onto something with his talk of fake news. This poster will discuss the adverse effects of an editorial gossip style rhetoric, which is seeping into legitimate news sources. This breeds websites like Breitbart, a far right wing website, that posts extreme editorial slants on facts, and in some cases, completely fabricated news. The poster will analyze the common rhetorical devices of gossip magazines such as an appeal to ethos and pathos over logos with unverified information, and the adding of opinion that skews facts in order to cater to a target audience. It will also delve into the way that these rhetorical devices are incorporated into the way the news relays information. Fake news can have dangerous repercussions, mainly that audiences will be unable to distinguish fact from obvious opinion.

Bryce Gaskey

The Eternal Strife of the Raging Barbarian: The Plight of the Pagan Warrior Beowulf

Harkening through the annals of time, man has waged innumerable wars in search for the illustrious prize of lof, kleos, or everlasting fame. Life, for a battle-born warrior of the blade, is but a proving ground for indescribable ecstasy that is death. Beowulf's ardent infatuation with eternal glory is a byproduct of his societal and culture foundation. In Beowulf's world, seeking immortality through undeniably awesome feats of heroic conquest and amassing a torrential wave of gold are the only ways to establish one's self in the magnificent eternity of the gods. However, the society which champions the brutality and selfishness of glory and fame is inexorably flawed. Fixated upon the hallowed promise of fame after death, the pagan warrior society is blinded by its own cultural hubris, condemned by the inevitability of evolving cultural morays, religion, and time their society is destined to lie writhing in a quagmire of obscurity.

Kaitlyn Gauvey

Petrographic Analysis of Silicified Coral from the Manistique Group of the Michigan Basin

Samples of silicified coral were collected from outcrops of the Cordell Formation from the Manistique Group located in the Hiawatha National Forest, Upper Peninsula Michigan. The silicified coral were analyzed petrographically using standard petrographic microscopy and cathodoluminescence to determine extent and nature of silicification. Petrographically, the silicified sections of coral consisted of chalcedony and megaquartz filled septa. The surrounding dolomitized sections of the rock were dolowackestones with very poor luminescence. Abundant pyrite is associated with the megaquartz, and the texture of the chalcedony suggests replacement of anhydrite. Several hypotheses about the relative timing between silicification and dolomitization exist. The observations of this study places dolomitization prior to silicification. The silicification here is dependent on evaporite emplacement and occurs after deposition of the overlying Salina Group. Initial dolomitization and silicification are early diagenesis products, while dolomite cementation occurs during late burial. Further geochemical and mineralogic analyses will continue to refine the exact timing of these events and place the extensive chert elsewhere in the Manistique Group within context.

Javier Gomez

Cardiac Functional Decay by Downregulation of Two Novel E2 Ubiquitin Conjugated Enzymes

Heart performance declines with age. Impaired protein quality control due to reduced ubiquitin-proteasome system (UPS) activity, autophagic flux, and/or chaperone-mediated protein refolding, is a likely contributor to cardiac deterioration. Recently, the transcription factor, FOXO, was shown to ameliorate age-associated cardiac decline when mildly overexpressed in *Drosophila* myocardium. This outcome was accompanied by an upregulation of genes associated with the UPS over time compared with nonpathogenically aging hearts. Such genes of interest are *Drosophila* CG17030 and CG14739, which encode an E2 ubiquitin conjugating enzyme that is highly homologous to the human UBE2L3, an enzyme that has been highly studied in cancer and virus research but never in cardiac or aging studies. Here, we use molecular genetics, semi-intact heart tube exposure, and high-speed video microscopy to show that CG17030 and CG14739 are important in normal cardiac aging in *Drosophila melanogaster*, and moderate reduction in their expression leads to early acute cardiac dysfunction.

Ashley Goode, Angela Shackelford

Huntsville Hospitality

For our poster presentation, we will be showcasing our community outreach engagement that was completed at the Hospitality House, a home in Huntsville that is available for families of inmates to stay in while they are visiting the local prisons. We reached out to poets all over Texas for pieces based on family life and Texas culture. The poems we received were printed on Cardstock and given to the children during an art session, and they were asked to draw/paint a picture related to the poem or to their families. The idea was to introduce local poetry detailing family life to kids who may not experience this kind of writing regularly. The community engagement combined artistic expression and familial love in order to give children the opportunity to express themselves in an otherwise bleak situation.

Hannah Guerrero, Meghan Turpin

How Does Play Help Children Achieve, Now and in the Future?

Time for play continues to be reduced in 21st century school systems. Students are sitting in desks for longer periods of time. The reasoning behind this is for schools to be able to meet the standards that will be tested on the state assessment. Why does this action continue to transpire? Why is it that play is characterized as a waste of time? Lastly, why is play perceived to being only child's work? There is rising amount of research indicating that play only enhances the way humans learn. Through research, interviews, and analysis we have compiled evidence that supports the importance of play for both current and future academic success in people of all ages. To understand the importance of play, we must also understand what play is and what academic success is, and furthermore,

understand the effect of play on human development and learning.

Leilani Hamilton

Parasitoid Wasps, Comics, and DIY Entomology - What Can Go Wrong?

Entomology is a field that needs more light in education and comics are a great way for students to get up close and personal with the insect world without the use of a microscope. This poster features a comic by a student who has never drawn a comic before and a guide for others to learn what she learned with her fellow collegiate. The comic presented on the poster will showcase the journey of four college students and a passionate professor with a mission to make an impact on the world of science. Demonstrating page by page, the basic process of their research and fun ways for students of all ages to participate in the study of entomology.

Kaci Heath

The SHSU Common Reader, An Astronaut's Guide to Life on Earth: Challenging the Co-teach Program in K-12

In *An Astronaut's Guide to Life on Earth*, author Col. Chris Hadfield discussed the importance of education and provided evidence that it takes well-planned teamwork to get things done successfully as an astronaut. As a future educator, I was inspired by this advice and sought to pursue research that applied teamwork principles in teaching. The purpose of this literature review was to examine co-teach programs and how implementation affects learning for students with special needs. Co-teach models use both general and special education teachers simultaneously in the classroom for inclusion of all students. Co-teaching can become expensive due to multiple teachers needed in the same classroom teaching the same curriculum. Evidence suggests that if co-teaching is done correctly with the right amount of support from colleagues and administrators, it can positively affect not only the students with special needs, but all students in the classroom (Friend et al., 2010).

Cristal Hernandez

Incidence of Sexual Victimization Among College Students Who Meet Their Perpetrators Online

With the advancement of technology, individuals are increasingly relying on online communication. The number of relationships resulting from the virtual world has increased significantly, as well as the amount of people who find they are targets of online sexual victimization. Relying on surveys from college students enrolled at two large universities, the current study will present the prevalence of in-person meetings among individuals who initially met via online contact. Additionally, incidence of sexual victimization resulting from these in-person meetings will also be presented. Findings will provide insightful information for the prevention of online sexual victimization.

Carla Hobbs

Sexual Abuse: Inadequate Resources Hinder Prevention

Childhood sexual abuse is a silent crime with very few incidents actually reported (BJS, 2015). In fact, sexual abuse is a prevalent public health issue throughout the United States and advocates strive to develop proactive programs. Unfortunately, many of these programs have failed or fallen short of their intended goals. With limited resources and inadequate proactive approaches, the initiative against child sexual abuse is staged for failure. This presentation will review several documented programs and approaches across the United States, including programs that encourage active involvement of the child's parent(s), schools, and communities.

Rayne Horton

Goat Behavior

Goats are peculiar animals and are often used in petting zoos due to their playful personalities. A petting zoo is meant for people and animals to interact; it is vital for these establishments to have non-aggressive animals. Not all goats are capable of being in a petting zoo because their breed is too anxious, nervous, or hostile. In my research, I went to one of the busiest petting zoos – the Houston Zoo's Children's Zoo. I examined the goat behaviors and compared their breeds, genders, and age. I found the kids (goats under 1 year of age) to be most aggressive. In general, does (female goats) show more aggression than bucks or wethers. Per my research, male Saanen goats and African Pygmy goats are the best choice for petting zoos. This is important to keep in mind when opening a facility in which goat interaction with people is prevalent.

Samantha Hudson, Megan Loveless

Evaluation of Passive Transfer Immunity and Predicting Survivability in Newborn White-tailed Deer Fawns

Immunoglobulin gamma (IgG) is used as a marker for the success or failure of passive transfer in neonates that rely on the maternal transfer of immunoglobulins through the consumption of colostrum. The objectives of this study were to determine an on-farm methodology to indicate successful passive transfer of immunity and to identify physical traits that may be used to predict the survivability of pen-raised white-tailed deer fawns.

Measurements of physical characteristics from 153 fawns were obtained biweekly from birth to six weeks of age. Blood samples were obtained at 24 hours of age and were analyzed on-farm using a digital refractometer. Data analysis indicated that serum Brix values ($P < 0.01$) and IgG concentration ($P < 0.02$) at birth were useful for predicting survivability; however, the physical characteristics that were measured in this study were not predictors of survivability ($P \geq 0.12$) in neonate white-tailed deer fawns.

Jordan Hunziker

A Copal Gecko from Madagascar

A specimen from the Alexander Koenig Research Museum, classified as a *Sphaerodactylus gecko* from the Dominican Republic turns out to be a Madagascan gekkonid. The specimen preserved in a teardrop shaped resin was CT scanned, revealing a very complete anterior half of the body, including the skull, vertebral column, pectoral girdle and forelimbs. Comparative analysis of the skeleton using a large database of living species indicate that the lizard is a member of the genus *Ebenavia*. This genus today includes two recognized species, *E. inunguis* and *E. maintimainty*. The most widespread species is *E. inunguis*, which occurs in the Mauritius, the east coast of Madagascar including Ile aux Prunes, Nosy Boraha, and Nossi Mangabe, the northwestern tip of Madagascar, including Nosy Komba and Nosy Be, Comoros, and Pemba Island. *E. maintimainty* has a more restricted range in the South Western portion of Madagascar Toliara Province. The distribution of major copal localities in Madagascar match the distribution of *E. inunguis* (Cap D'Ambre), and this together with morphological similarities, support the identity of this specimen.

Shayne Johnson

Discourse for Your Dollar: Using Rhetoric to Reach Goals

Dining out is a very common and enjoyable activity for most Americans. There is no better feeling than getting good service on a night out with your loved ones. One may not know it but he/she is looking at people who some might go as far to call talented rhetoricians. A good server has the ability to not only excel at socializing and other key character traits but also use rhetorical devices to make their income. This is something called "Discourse for your dollar." This presentation will show how rhetorical devices can be used to transcend in not only business related activities, but personal life as well.

Willie Kinch

The Flat: A Historic African American Community in Huntsville

This poster presentation examines a historic black neighborhood in Huntsville known as the Flat. Situated along Avenue H between 16th Street and Sam Houston Avenue, this neighborhood served as home to dozens of African American families from the 1930s to the 1970s. This poster will feature photographs, maps, and stories from residents of the Flat, which was overtaken by Sam Houston State University in the mid-1970s. Although the Flat is now a "vanished neighborhood," this presentation will highlight the significant role that residents of the area played in the local community.

Kelsey Kralman

Functional Distance and Establishment of Non-native Species with Complex Life Cycles

Functional traits can be used to predict the functional niche space of introduced species and understand the potential magnitude of their subsequent impacts to the recipient community. We examined the functional distance of the larval and post-metamorphic life stages of two non-native frog species relative to a local Chihuahuan Desert frog assemblage in Big Bend National Park, Texas. We used Multivariate Analysis to describe the functional trait space of the recipient assemblage and the non-native species. *Hyla cinerea* and *Lithobates catesbeianus* were functionally divergent relative to members of the recipient community and occupied niche space outside or peripheral to the recipient assemblage. Compared to the recipient assemblage, the post-metamorphic life-stage for both non-native species was more functionally divergent than the larval life-stage. Our results suggest that the functional distinctiveness at both life stages may facilitate the establishment of species with complex life cycles.

Alex Lara

What Do Employers Want? An Analysis of an ASET/STEM Career Fair from the Employers' Perspective

SHSU Career Services organizes a career fair for the students in the Department of Agricultural Sciences and Engineering Technology (ASET) and includes students in the Science, Technology, Engineering, and Mathematics (STEM) stream each Spring. This study analyzed the overall impression of prospective employers about the event to determine which aspects of the career fair were important to potential employers. It used a survey instrument administered to the employers ($n=39$) who attended the 2015 ASET/STEM career fair. OLS Linear Regression analysis showed that the only question significantly associated with the overall rating of the career fair is the professionalism displayed by the candidates in their interactions. The majority of the prospective employers rated

the event as Great (61.5%), while 35.9% rated it as Good (5-point scale). Most employers remarked that students displayed Great (59.0%) or Good (33.3%) professionalism. Employers had a very positive overall impression of students (Great=41.0%, Good = 41.0%).

Clay Laughrey

Species Co-occurrence Patterns Along Environmental Gradients in Pond Microhabitats

Understanding microhabitats utilized by various organisms is essential in determining how interactions between coexisting species scale up to affect freshwater community structure. Herein, we present preliminary results from microhabitat surveys in two East Texas ponds. We used a pipe sampler to survey organisms in microhabitats along a gradient of water depth and substrate diversity. We measured seven abiotic factors and quantified species richness and abundance at each microhabitat. Species richness and abundance was higher in Pond 1, which has greater heterogeneity in substrate type and aquatic vegetation. Large-bodied predators (Order Odonata) occurred in microhabitats with deeper water, dense vegetation, and flat/sandy substrates. Shallow microhabitats contained small-bodied organisms including smaller predators and primary consumers. Large-bodied predator species may be displacing the smaller-bodied organisms to shallower microhabitats. Our preliminary findings subjects that distributions of co-existing species in lentic environments may be influenced by water depth, substrate type, and indirect effects by predators.

Hannah Lewandowski

An Analysis of Student Safety Education: Student Safety Habits In and Out of the Agricultural Mechanics Laboratory

The National Children's Center for Rural and Agricultural Health Safety Fact Sheet (2014) noted that more than 955,400 youth lived on farms in 2012 and almost half (49%) worked on the farm (NCCRAHS, 2014). As a result, "young agricultural production workers were three times more likely to die on the job than their non-agricultural counterparts" (Hard, et al., 1993; Reed, Browning, Westneat, & Kidd, 2006, p. 314). Pedagogy and the Health Belief Model helped guide this study. The purpose of this study was to measure and understand the impact of safety education on high school agricultural mechanics students taught by Texas agriculture science teachers. The population for this study were Texas agricultural mechanics students (N = 76) who participated in the 2016 SHSU Welding and Metal Fabrication contest. Participants indicated that they felt great importance towards safety after having various forms of safety training in high school.

Shealyn Lewis

Mindfulness and Forgiveness

Mindfulness is the process of actively directing awareness to the present moment, without judgment. Research indicates that diverse applications of mindfulness practice are related to the advancement of holistic health and development. Much like mindfulness, before the 21st century, forgiveness was primarily associated with religiosity therefore studied strictly within philosophical or theological contexts. It was not until these disciplines were undertaken by psychologists that their wide variety of benefits were empirically recognized. Although both mindfulness and forgiveness have been linked to positive health and behavior outcomes, little research has been conducted on their relation to one another. Further, other possible predictors of forgiveness and mindfulness (e.g., demographic variables and religiosity) will be examined. Participants from the Department of Psychology's Research Participation Program will take part in an online survey employing a demographics questionnaire, the Religious Orientation Scale, the Five Facet Mindfulness Questionnaire, and the Heartland Forgiveness Scale.

Isabel Lopez

Youth-enizing Don Quixote: A Look at the Noblest Knight in History as He is Introduced to Young Readers

Miguel de Cervantes' satirical creation of the ingenious knight, Don Quixote de la Mancha, was intended to evoke comedic sorrow towards a madman destined for inevitable suffering and punishment due to the self-orchestrated misadventures his devout and outdated faithfulness to the chivalric code inspired. Through the years, the brave knight and his squire stole the hearts of readers worldwide with every noble and brave endeavor. As the masterpiece lives on and is passed down to new generations, I set out to find an adaptation of the novel intended for young children that succeeded in capturing that sense of wonder and humor the valiant knight encompasses in the first modern novel Cervantes so carefully crafted, and depict some of the lessons he teaches over 400 years later.

Linette Ly

The Effect of Sucralose in *Nauphaeta cinerea*

The artificial compound sucralose, the primary ingredient of Splenda, has been marketed as a sweetener worldwide. However, the chemical structure of sucralose is similar to many pesticides and sucralose exposure

has been shown to affect the microbial flora of the gut. In this study, we examined the effect of sucralose feeding, begun immediately after hatching, on growth in the speckled cockroach (*Nauphoeta cinerea*). For this study, we measure the body masses of individual cockroaches on a weekly basis, beginning after 3 months of sucralose feeding. Cockroaches were provided Nature Zone's Bites ad libitum on a need basis and maintained in an isothermic environment (22°C). Cockroaches in the experimental group received water gels supplemented with dissolved sucralose. In brief, our data suggest that sucralose exposure slows the growth of speckled cockroaches during early development by an unknown mechanism. It remains to be seen whether these effects persist into adulthood.

Austin McIlhany, Daniel Nwosuocha

Are Urban Dwellers Bold? An Assessment of Personalities in Urban and Rural Birds

Recent studies show that urban birds are bold or more assertive than their rural counterparts. We set out to study Carolina wrens (*Thryothorus ludovicianus*), a cavity-nesting songbird of the eastern USA, to see if we could find personality types, and if these personalities varied between wrens nesting in urban and rural environments. We based our analyses of personality on responses of birds toward novel and familiar sounds and objects placed near their nests. The results varied between individuals from outright avoidance to aggressive reaction to the sounds and objects. We were unable to test many urban nests in our first field season of the study so we couldn't do a statistical comparison between the habitats. We were able to refine our methods for future field seasons.

Zachary McKellar

Quantifying Characters: How Your Emotions Affect Box Office and Reviews

This study aims to measure how an emotional connection between characters and the audience affects the general audience acceptance and critical ratings. We hypothesize that the existence of one relatable or likable character whether good or evil, will automatically cause a better box office reception and higher overall audience approval ratings. The connection between audience and character is the most important aspect of a film, and the films that achieve such receive the most attention and appraisal from the general public.

Brackston McKnight

Crop and Water Allocation for Profit Maximization in Texas High Plains

The Texas High Plains depends heavily on the dwindling Ogallala Aquifer for irrigation, making water-use efficiency a primary concern for farmers. Optimal irrigation water allocation is a complex task under limited water supply because to maximize farm profitability, the decision-maker has to simultaneously identify both the profit maximizing irrigation level for each crop and the optimal land allocation to these crops. This study used the cotton, corn, and grain sorghum production functions reported for the region and price scenarios to estimate optimal irrigation level and crop choices using Excel Solver with the Generalized Reduced Gradient Non-linear Algorithm. The optimal water and crop allocations were estimated for low (12 inches), medium (18 inches), and high (24 inches) seasonal rainfall scenarios assuming an additional 15 acre-inches of water available from irrigation. The study identified optimal combinations at current prices and switching points for the crops in response to changing commodity prices.

Cameron Medeiros

Not Even Once

American culture has had a distinct distaste for showing children and other youth things that might seem graphic in the past, instead choosing to use cartoonish situations to avoid directly showing the harsh reality. However, this trend has been broken as American media focuses on more realistic and darker tones. A good example of this is the way in which drug campaigns, which target a younger audience, have changed the way they function. Rather than showing overdramatized commercials, the media now shows hyper realistic commercials portraying people suffering from the late stages of addictions. This poster will examine the trend of American media going from lighter to darker tones, specifically when dealing with PSA's. It will examine what rhetorical devices were used then versus now and how these devices appeal to their target audience and how this strategy might be expanded to other audiences.

Brittany Minor

The Drag: Huntsville's Black Business District

The Drag consisted of businesses located on 12th street and Avenue M. This poster will present historic photographs from the Walker County Historical Commission, the Huntsville Public Library, and the Thomason Room at the Newton Gresham Library. The following businesses in The Drag will be discussed: Veterans Cleaners, the Felder Jones Shoe Shop, the Atlanta Life Insurance, and Willy Jerry Jones Barbershop. Malone's Grocery, Quick

Service Taxi, Cox Funeral Home, Logan's Café, Crawford's Barbershop, and Dr. J. A. Johnson Dental Office will also be discussed in the presentation. This poster will highlight the agency and dynamism that the local African American community displayed, despite the discriminatory laws and practices by white Texans during the Jim Crow era.

Cheyenne Moore

Paradise Lost and Frankenstein

Many 19th century British Romanticists were influenced by John Milton's *Paradise Lost*, including Mary Shelley. The literature examined includes various perspectives of examining *Paradise Lost* in relation to gender, religion, and free will. After examining critical literature in relation to *Paradise Lost*, the poster attempts to acknowledge Miltonic influences in Mary Shelley's *Frankenstein*, such as the Miltonic characters of God, Satan, and Adam. Using feminist theory, other parallels such as hypermasculinity and determinism are examined.

Kimberly Moore

Petrographic Analysis of Chert Within the Manistique Group of the Michigan Basin

Samples of chert-bearing dolostone were collected from the Cordell Formation of the Manistique Group at Scott Quarry in the Hiawatha National Forest. Petrographically, two chert textures were identified, corresponding to stratigraphic position. Lower, older cherts were crystalline with a nodular texture, while upper, younger chert had a sucrosic texture. Crystalline cherts contained relict structures of sponge spicules. Sucrosic chert was associated with dolostone that contained crinoids and bryozoan. The origin of the chert in these samples is hypothesized to be from recrystallization of siliceous allochems. This recrystallization occurs during early burial, when siliceous fluids move upward. Lower sections of the Cordell Formation contain more siliceous organisms, producing larger, crystalline chert nodules. The upper sections of the Cordell Formation contain more calcic organisms, with minor silica replacement resulting in a sucrosic texture. There is an abrupt change in chert texture between the two sections, denoting subunits of the Upper Cordell Formation.

Hannah Morris

On the Occurrence of the Stapedial Foramen in Geckos

The stapedial (internal carotid) artery has three possible paths in squamates: it may perforate the otostapes through the stapedial foramen, or it might pass in front of or behind an imperforated otostapes. A perforated otostapes is a plesiomorphic feature among squamate reptiles, being recorded only in dibamids and gekkotans. The presence of a stapedial foramen is a common feature used to diagnose gecko groups; therefore, the presence or absence of this structure could be useful for categorizing higher level groups of geckos, and possibly all squamates. The most extensive review of this trait in gekkotans was completed 30 years ago and included a survey of 46 gekkotan genera. Here we reviewed specimens from virtually all gekkotan genera using HRCT data, and surveyed the distribution of this feature in the light of recent molecular analyses.

Nicholas Nowak

The Comparison of Broad vs. Narrow Spectrum Antibiotics on the Mucosal Microbiome

The mucosal linings of the human body contain the highest counts of bacteria which have an intimate interaction with the immune system and on human health. The skin microbiome of the fish *Gambusia affinis* is a good model system for mucosal microbiomes, allowing easy experimental manipulation and repetition. Past experiments have shown a rapid gain of antimicrobial resistance (AMR) in bacterial community members following exposure to the single broad-spectrum antibiotic, rifampicin. Further, resistant persistent in the skin microbiome community for at least two weeks after treatment cessation. Comparison experiments have suggested a reduced amount of AMR when using multiple antibiotics in sequence. Multiple treatment regimens, including narrow-spectrum and broad-spectrum, are being compared for their effects on the selection of and persistence of AMR in normal microbiota, with the long-term goal of uncovering ways to minimize development of AMR.

Thomas O'Connor

Buy, Rent, or Time Share: Birds of Sam Houston State University's Campus

With global increases in urbanization, birds and other wildlife are often forced to use urbanized habitats. Within urban areas, university campuses may serve as refuges for birds during migration, for overwintering or for breeding. The Sam Houston State University (SHSU) campus is within the City of Huntsville, TX. Knowing which species utilize the campus is useful for future landscaping decisions and in managing bird populations in general. Using a slightly modified point-count method, bird species were counted from January through April 2017. Bird species documented included: 22 permanent residents, 1 migrant and 8 wintering species. Knowing which bird species are on campus, how the birds use the campus, and which parts of campus the birds prefer, can be useful when designing new landscaping as the campus continues to expand. Furthermore, SHSU can become a leader

among universities in designing bird friendly campuses.

Diana Lee O'Quinn

Zhang Ailing's "Sealed Off": Feminism/Femininity and Social Policy in Chinese Literature

The poster presentation will focus on Zhang Ailing, one of the most influential writers of feminism and Chinese literature in the mid-twentieth century, and will explore the idea of feminism through her use of dialogue, the patriarchal system, and female writing style in her short story titled "Sealed-Off."

Walkyria Orellana, Chloe Spence

Remnants of Women in Beowulf

When reading an epic like *Beowulf*, it is easy to recognize that men dominate the action while women remain in the background, silent and largely invisible. While some may argue that women are less important in *Beowulf* than men we argue in this presentation that they are in fact more impactful, powerful, and memorable particularly since there are so few of them in the epic. One cannot close *Beowulf* without remembering the harrowing tale of Hildeburh's loss, the feud-ending marriage of Freawaru, or the solitary speech given by Wealhtheow. Although each event has few lines devoted to them, it is for this reason we turn our gaze to the women of *Beowulf* to prove that they are more than just set pieces on an epic stage.

Karisma Paden

The Character of King Arthur

This presentation will examine various myths surrounding the King Arthur tradition. I will use Geoffrey of Monmouth's *The History of the Kings of Britain* as the first narrative account King Arthur and will further demonstrate how the character of King Arthur changes by comparing other representations such as Sir Gawain and the Green Knight (late 14th century), Disney's *The Sword in the Stone* (1963), and the film *King Arthur* (2004). By analyzing Arthur's character as a representation of the heroic ideal, these shifts in character will show which traits are most valued in each culture or demographic.

Jazmin Palacios

A Systematic Review of State and Federal Court Rulings on Texas Prison Conditions

Despite considerable change in the correctional system over the past three decades, researchers, practitioners, and policymakers know little about the current state of prisoner litigation. The purpose of this project to examine the conditions of confinement within Texas prisons that may violate inmates' civil rights by examining state and federal court rulings decided between 2010 and 2015. We will perform a systematic review of 5 randomly sampled state and federal court rulings to identify themes and patterns that will inform policy and practice. The findings from our study may help the Texas Department of Criminal Justice identify factors that lead to prisoner litigation and will help researchers and practitioners in Texas understand how prisoner litigation has changed over the course of five years.

William Perez

Characterization of Metacaspase II During Programmed Cell Death in *Chlamydomonas*

Programmed cell death (PCD) in the green alga, *Chlamydomonas*, exhibits similar characteristics to apoptosis, a well-known form of PCD in animal cells. However, while apoptosis is known to involve an important family of enzymes called caspases, *Chlamydomonas* instead lacks caspases, but has a related family of proteins known as metacaspases. Here, we investigate the role of Metacaspase II during PCD of *Chlamydomonas* using a reverse genetics approach.

Rebekah Primrose

Understanding "A Modest Proposal"

"A Modest Proposal" by Jonathan Swift is a satirical essay written in 1729. Swift suggests through the writing that the poor of Ireland would be eased of suffering if they sell their children as food to the rich land-owners. The proposal urges through facts that doing so will take pressure off of the Irish economy, and they will in turn generate a high profit. Swift argues that the culinary skills of the wealthy will increase, unemployment will decrease along with the rates of overpopulation, and penny for the impoverished families will increase. Regarding the poor of Ireland, how can we connect this modest proposal with our modern day poor?

Emily Riffin

Professional Development Needs of Early Career Texas Agricultural Science Teachers: A Focus on Agricultural Mechanics Skills

Currently, there is a shortage of agricultural science teachers across the U.S., especially in high school agricultural

education programs that offer agricultural mechanics courses (Wolf, 2011). With such a high demand for employees with agricultural mechanics skill sets in industry, agricultural mechanics curriculum can play a definitive roll in bridging the gap for entry level employees with pre-existing skill sets, therefore, also increasing the need for agricultural mechanics teachers (Wells, Perry, Anderson, Shultz, & Paulsen, 2013). The Borich Needs Assessment Model (Borich, 1980) guided this non-experimental, quantitative study. The purpose of this study is to determine the agricultural mechanics professional development needs of early career Texas agricultural science teachers. The population for this study was composed of all new Texas agricultural science teachers who attended an annual new teacher meeting at the teacher professional development conference in 2016 (N = 150). A census was conducted with usable responses received from 134 teachers (93.33%). Results indicated teachers had professional development needs across all 21 agricultural mechanics skill areas.

Emrah Sariboz

Acquisition of Browser Artifacts from Android Devices

Providing quality of information in a quick manner is getting more doable each day with elaborating new web technologies, such as HTML5. Web storage, a new feature of HTML5, aims to store crucial and meaningful amounts of client-side data in a persistent and secure manner. This project will focus on investigation (locating) and extraction of web storage data in Android platform to be used for web forensic investigation. Obtaining forensically important data has always been challenging for investigators because of the wide variety of crimes and technologies used in a crime. With this research work, we aim to provide the details of web storage locations and used techniques in Android platform. Moreover, automatically retrieving web storage data and converting it to a readable format are other objectives of this work so that the forensic investigators will save significant amount of time during their investigation.

Treston Smith

Comics: A Modern Day Mythology

This presentation will observe different motifs of ancient mythology as they are employed in present day comic books. The modern view on comics, derived from the 1950s book *Seduction of the Innocent*, is that they are uneducational, secular and (on the more radical side) detrimental to the development of children. This presentation will outline the mythological motifs applied to such comics as: *The Death of Superman*, *Injustice: Gods Among Us*, and *Batman: No Man's Land*, in order to demonstrate that the modern view should be reexamined and possibly reconsidered.

Asya Stoudemire

Understanding the Meaning of Afro-German?

This poster will explore what it means to grow up Afro-German for men and women during a certain period in Germany. The purpose of this study is to show the oppression, the loss of identity, and the insecurities Afro-German activists have faced to advocate change for other Afro-German's who have faced the same problems. The research procedures involved readings from *Showing our Colors: Afro-German Women Speak Out* which was edited by May Opitz, Katharina Oguntoye, Dagmar Schultz and "Destined to Witness: Growing up Black in Nazi Germany" a memoir by Hans J. Massoquoi. This is a dangerously understudied area, so reading and analyzing these two works will help digest the struggles Afro-German men and women went through growing and interacting in Germany.

Daniel Tobin

Practicum in Poker

Poker is the ultimate application of game theory, and it is rooted in the social and psychological arena. Through study and rhetorical analysis, this poster suggests that a good poker player does not merely play his cards, but plays people. The audience will come to understand that the game, at its core, is about extracting information quickly and efficiently in order to optimally control or manipulate another person in mere moments. The presentation posits that inducing actions or evoking thoughts in others is both a practical and critical skill that directly translates from game to reality. This is true for both players and nonplayers of the game alike. The rhetorical techniques utilized in poker are more than applicable to the decision making found in daily life, creating clear parallels for any and everyone who would choose to exercise them.

Rebecca Vaughn

Antibiotic Side Effects: Looking at Intestinal Motility

Antibiotics are powerful medicines used to treat bacterial infections. While antibiotics are effective tools, they can also be responsible for disrupting the ecology of the body's normal microbiota. *Gambusia affinis* is a vertebrate model used for human mucosal microbiomes. Previous work demonstrates that exposure of fish to the broad-spectrum antibiotic rifampicin causes community composition changes in the gut microbiome and several negative effects on the host fish, including increased susceptibility to a bacterial pathogen and lack of weight gain (failure to thrive). Transit time for food in the gut was examined as a potential factor related to lack of weight gain. Experimental groups of fish were exposed to antibiotic for three days while control groups were vehicle exposed. After this, fish consumed fluorescently-labeled 70kDa

dextran beads embedded in food. Water samples were taken over a thirty-six-hour period and fluorescence intensity measured. Results showed no significant difference in the gut motility rate with fish exposed to rifampicin compared to control. This suggests that failure to thrive may be linked to other factors, such as gut inflammation or altered metabolic activities of the gut microbiota.

Andrew Vierkant

The Americanization of Texas-German Language and Culture

This presentation deals with the micro-histories of historical Texas-German towns and cities in order to document the language and cultural shift in a thirty-year span leading up to, and following, World War I, as well as what these areas look like today. The presentation primarily draws from research on micro-histories conducted on visits of historical German societies in Southeast and Central Texas. Due to social stigma and a need to adapt to the new American-nationalistic cultural shift anticipating and following World War I, these traditionally German communities experienced a heightened pace of “Americanization”, losing much of their cultural roots. The purpose of this research project is to help encapsulate the important experience of cultural progression of immigrants with regards to unavoidable political and societal pressures of the time, which ring familiar for us today.

Helen Wakefield, Diego Ibrra

One, Dos, Trois: Bilingual Proficiency and the Acquisition of a Third Language

Factors such as age, motivation, personality, and aptitude have been shown to influence success in foreign language learning. There are, however, few studies focusing on whether native-like fluency in two or more languages helps in the learning of an additional language. Using questionnaire data from students in language classes at SHSU, we explored whether bilinguals have an advantage over monolinguals in the task of language learning. Here, we present the background research, discussing factors that have been established to be a part of an ideal language learning experience, and our data analysis. Our findings indicate that a small percentage of students raised in bilingual environments pursued a language other than their home languages and that monolingual students did not pursue a foreign language to a conversational level. These results suggest a lack of motivation for acquiring a foreign language in university students regardless of prior language ability.

Bradley Whittington

The Effect of Contrasting Music Genres on Creativity

A total of 96 university students completed the Guilford Alternative Uses Task to measure creativity while listening to a specific genre of music (dissonant music, calm music, pop music, or a control group with no music). Participants completed the assessment once, then participants were split into the different music-listening conditions as they completed the creativity assessment again to measure fluency, flexibility, elaboration, and originality. The dissonant and calm music conditions showed significantly greater fluency and flexibility creative scores compared to the controlled, no music, condition. For the creative scores a MANOVA revealed a significant multivariate effect for the scores, Wilks' $\lambda = .754$, $F(12, 235.763) = 2.111$, $p = .012$, partial eta squared = .090. Power to detect the effect was .907. There was no difference in music conditions for the elaboration and originality score.

Jessica Wright

Skull Variation in Plug-nosed Gecko *Chatogekko Amazonicus* (Gekkota: Sphaerodactylidae)

The monotypic genus *Chatogekko* was recognized only six years ago to include South American forms that exhibit extreme snout reduction. *Chatogekko amazonicus* is widely distributed throughout northeast South America, and specimens from different localities exhibit dissimilar osteological characters. Previous molecular studies have indicated that *C. amazonicus* includes several multiple species-level lineages, but previous attempts to diagnose such groups have been ineffective. Here we study the skull anatomy of specimens throughout its distributional range to provide a basis for distinguishing these species. More material needs to be examined to corroborate these patterns and continuous data are being taken to quantify differences in the snout, which might have some ecomorphological significance to understand the diversification of *C. amazonicus* in South America.



The Honors College Ambassadors would like to thank our faculty moderators for taking the time to share their expertise with our student scholars.

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Madhusudan Choudhary

Chen Danhong

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Maria Holmes

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