

# The Seventeenth Annual Undergraduate Research Symposium

Conference Program  
April 20, 2024

*Undergraduate Research Symposium*



Undergraduate Research Symposium  
HONORS COLLEGE  
SAM HOUSTON STATE UNIVERSITY

**Hosted by the Elliott T. Bowers  
Honors College Student Ambassadors**





**Honors Ambassadors are the face of the Elliott T. Bowers Honors College. During special Honors events, the Ambassadors play important roles as hosts and greeters, table leaders, or panel participants.**

**Being an Ambassador involves taking on certain responsibilities--the willingness to give up time, often in the evenings or weekends--in the interest of supporting Honors College events. Ambassadors need to be able to represent the college and the university well, both in deed and word. There are 24 ambassadors representing every class and every academic college at the University.**



Undergraduate Research Symposium  
HONORS COLLEGE  
SAM HOUSTON STATE UNIVERSITY

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A- Oral-Media-Panel Presentations	
B- Oral-Media-Panel Presentations	
C- Poster Presentations	
D- Oral-Media-Panel Presentations	

**ALL ORAL-MEDIA SESSIONS WILL BE HELD ON THE SECOND FLOOR OF THE LSC.  
THE POSTER SESSION WILL BE HELD IN THE LSC WHITE BALLROOM.**



Undergraduate Research Symposium  
HONORS COLLEGE  
SAM HOUSTON STATE UNIVERSITY

- 8:00-8:45 AM** Registration & Breakfast  
LSC: Piano Lounge
- 8:45-8:55 AM** Welcome and Opening Remarks  
LSC: Piano Lounge
- 9:00-10:20 AM** Session A, Oral-Media Presentations  
**10:30-11:50 AM** Session B, Oral-Media Presentations  
LSC: 2nd floor
- 12:00-1:15 PM** Lunch  
LSC: Orange Ballroom
- 1:30-2:50 PM** Session C, Poster Session  
LSC: White Ballroom
- 3:00-4:20 PM** Session D, Oral-Media Presentations  
LSC: 2nd floor
- 4:30-5:00 PM** Closing and Awards Ceremony  
LSC: Orange Ballroom

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

Elliott T. Bowers Honors College

Sam Houston State University

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



## The Texas State University System Board of Regents,

Alan L. Tinsley, Chairman, *Madisonville*  
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## Honors Council

Kimberly Bell	Dean, Honors College
Dee Barras	Physics
Maria Botero Jaramillo	Philosophy
Cassandra Gonzales	Criminal Justice
Jessica McQueston	Education
Jason Ingram	Criminal Justice
Praphul Joshi	Population Health
Kevin Clifton	Art
Victoria Lantz	Theatre
Joyce McCauley	Education
Kenneth McIntyre	Political Science
Ashton Mouton	Business
Van Vung Pham	Computer Science
Kathleen Ratajczak	Victim Studies
Kevin Sweeney	Business
Jeffery Wozniak	Biology
Hannah Menendez	Newton Gresham Library
Barna Abed el Satar	Family & Consumer Science

# URS History and Mission Statement

In 2008, the Honors College 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 Seventeenth Annual Undergraduate Research Symposium! We appreciate your interest and participation. It is because of scholars like you that we can create an environment for our students to pursue academic excellence and develop as a professional. Along with our fellow Honors Ambassadors, we are grateful to be able to provide this opportunity for our students, staff, faculty, and audience members.

The Symposium allows undergraduate students to develop their professional skills by presenting the research they have completed on and off campus during their time at Sam Houston State University. Over the last ten years, we have seen a substantial increase in the amount of presenters and presentations at the conference. Compared to the Seventh Annual URS in 2014, the number of presenters and presentations has more than doubled. When the pandemic hit, our attendance was undeniably affected, but the symposium is now back to our pre-pandemic attendance. We are so grateful that so many SHSU students decide to benefit from the opportunities that the conference provides.

Not only does the URS develop students' professional skills, but it allows students to also connect with other students and faculty. These qualities prove to be advantageous for students who wish to pursue further research and further development. A goal of this event is to facilitate an environment that encourages the success of students that present or attend as an audience member. We want our students to feel passionate about research and take pride in the work they have been able to accomplish during their college career.

By hosting this conference, we have the remarkable ability to provide a supportive academic environment to Sam Houston undergraduate students. Every person who attends the URS, no matter their role, contributes to the fostering of research and the support of SHSU students at this unique event each year. The URS is the largest conference at Sam Houston State University, and our hope is that over the coming years, with support from amazing people like you, we are able to grow this experience even more. On behalf of the Co-Chairs, we want to thank you for your contribution to the Seventeenth Annual Undergraduate Research Symposium.



**Jessica Bilsing**  
URS Co-Chair



**Virginia Patton**  
URS Co-Chair

## A Message from our Faculty Advisor

Welcome to the Seventeenth 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. 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 URS also underscores Sam Houston State University's designation as an R2 institution, one which is dedicated to research.

The current co-chairs Jessica Bilsing and Virginia Patton and the Honors Ambassadors have spent this past year hard at work organizing workshop sessions and practice sessions, encouraging participation, and making sure this live event marks a celebration of SHSU undergraduate research. Their passion for this event, their dedication to research, and their hard work stands as a hallmark for future Ambassador co-chairs. I thank them for their continuing support and guidance.

Our motto reads: The intricate path to discovery begins with research. If you look closely at the image of the URS maze, you will recognize that there is one consistent path to the

center, no matter how convoluted it might seem at first glance. Consider that this image represents both the research process as well as the attendant self-discovery within that process. Through research we not only question, discover, and create scholarship, but we also come to understand our own potential within scholarly communities. Symbolically we enter the maze, make the turns, and work our way to the center, to discovery.

These students are not the only ones who have dedicated themselves to furthering what is 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, and 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 and generous support from SHSU fund this event because promoting and participating in undergraduate research is powerful and affirming. We recognize and deeply appreciate their active support of this endeavor. Finally, we would like to thank Dr. Hiranya Nath, Professor of Economics, for his very generous Annual Assam Scholarship Award.

*Tracy E. Bilsing*

**Dr. Tracy Bilsing**

*URS Faculty Co-Chair*

*Assistant Dean of the Elliott T. Bowers Honors College*





## Honors Faculty and Staff

Dean	Kimberly Bell, Ph.D.
Associate Dean	Patrick Lewis, Ph.D.
Associate Dean	Tracy Bilsing, Ph.D.
Assistant Dean	Justin Williams, Ph.D.
Associate Director	Kendall Gragert
Administrative Coordinator	Connie Rodriguez
Specialist III	Ashlee Fuller
Graduate Assistant	Braedon Smith
Student Assistant	Edward Agsunod
Student Assistant	Jessica Bilsing
Student Assistant	Haley Cook
Student Assistant	Alexander Kinsel
Student Assistant	Morgan Marsh
Student Assistant	Jesika Miller
Student Assistant	Gabriel Ramos
Student Assistant	Kade Brackin

## The Undergraduate Research Symposium Faculty Committee

Dr. Tracy Bilsing  
Dr. Patrick Lewis  
Dr. Kimberly Bell  
Dr. Justin Williams  
Dr. Paul Eaton

## Honors College Ambassadors

Haley Cook- <i>President</i>	Edward Agsunod	Morgan Marsh
Ellen Claassen- <i>Vice President</i>	Brenda Armstrong	Jesika Miller
Paige Ross- <i>Secretary</i>	Jessica Bilsing	Hanna Northway
Marla Antonette Niego- <i>Social Chair</i>	Kaidlyn Birk-Cockburn	Jennifer Oster
Huda Yousif- <i>Historian</i>	Victoria Camarillo	Virginia Patton
	Leslie Garcia	Gabriel Ramos
	Jonnie Hart	Jair Rosales
	George Hendrickson	Mary Smith
	Rachel Hill	Katie Wescoat
	Alexander Kinsel	

# Session A

## 9:00 - 10:20

### ROOM 230 A Making Sense of the Natural World

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***Exploring Trends in Oxidation: Profiling a Diketone Scaffold and Expanding Biocatalyst Applications to Organoboron Compounds***

**Katherine Foreman**

Faculty Advisor: Dr. Meagan Hinze

***Impacts of a Total Solar Eclipse***

**Charise Lincoln**

Faculty Advisor: Dr. Renee James, Dr. Scott Miller

***Synthesis of Dicarbonyl Scaffolds and Investigating Oxidation Outcome***

**Elizabeth Bloss**

Faculty Advisor: Dr. Meagan Hinze

***What is Going On? The Gene Waterproof is Required for Drosophila Eye and Head Development***

**Ashleigh Ogg**

Faculty Advisor: Dr. Mardelle Atkins

### ROOM 230 B Literature and Society

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***The Criticism of Porphyria's Lover***

**Destiney Poore**

Faculty Advisor: Dr. Audry Murfin

***Queer Identity and the Paradox of Shame in Giovanni's Room***

**Carly Hannah**

Faculty Advisor: Dr. Kandi Tayebi

***An Alluring Nature: Wilde's Use of Nature Symbolism and its Connection to Aestheticism within The Picture of Dorian Gray***

**Gunner Law**

Faculty Advisor: Dr. Kandi Tayebi

***The Parallels of Oppression: The Handmaids Tale vs. Present Society***

**Maria Rojas- Caballero**

Faculty Advisor: Dr. Benjamin Mitchell-Yellin

# Session A

## 9:00 - 10:20

### ROOM 241 A Improving Technology

#### ***Stars and Scripts: An Exercise in Reducing Astronomical Data Using Python***

**Gregory Pinkasavage**

Faculty Advisor: Daniel Horenstein

#### ***The Impact of the Printed Part Size on the Shrinkage and Density in Binder Jetting Additive Manufacturing of Ceramics Powder***

**Chris Smith**

Faculty Advisor: Dr. Suleiman Obeidat

#### ***Building a Computer from Discrete Components***

**Michael Johnson-Moore**

Faculty Advisor: Dr. Iftekhar Basith, Dr. Abdulhamid Zaidi

#### ***Searching for Switchbacks and Solar Wind Acceleration***

**Juston Ward**

Faculty Advisor: Dr. James Dent

### ROOM 241 B Women's Health

#### ***Hormonal Contraceptive Use and Breast Cancer***

**Hailey Davis, Abby Hooks, Daisy Thornton**

Faculty Advisor: Dr. Lilibeth Al-Kofahy

#### ***Impacts of Toxic and Nutritional Metals on Thyroid Hormone Biomarkers in Adolescents and Pregnant Women - A pilot study***

**Karen Carreon Garcia**

Faculty Advisor: Dr. Khalid Khan

#### ***The Non-pharmacological and Pharmacological Effects of the Labor and Delivery Process***

**Abigail Orekoya, Grace Udugbezi, Myra Wamala**

Faculty Advisor: Dr. Kimberly Bell

#### ***Racism and Bias in Maternity Settings: A Literature Review***

**Kellie Foster, Andrea Rincon Morales, Stephanie Wadewitz, Keily Zamudio**

Faculty Advisor: Dr. Lilibeth Al-Kofahy

**Scan For Abstracts**



# Session B

## 10:30 - 11:50

### ROOM 230 A Work and Play

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***Nintendo's Influence on America***

**Chloe Trail**

Faculty Advisor: Katherine Gaskamp

***Enabling Positive Work Ethic with Modern Innovation***

**Dylan Phillippi**

Faculty Advisor: Dr. Ali Mchiri

***The Problem of Redundancy in Capitalist Production***

**Dominic Brandolini**

Faculty Advisor: Dr. Thomas Brommage

***The DNA Dialogues: How Developmental Diversity Shapes Social Skills***

**Stephanie Berry**

Faculty Advisor: Dr. Susan Duncan

### ROOM 230 B Sustainability

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***Enhancing Sustainability and Cost Efficiency in Concrete Construction: Investigating the Viability of Fly Ash Replacement for Cement***

**Bryan Alonso, David Linares, Eric Guzman Medrano, Yovany Portillo, Christian Reyes**

Faculty Advisor: Dr. Momen Mousa

***Towards Greener Concrete: Exploring Natural Pozzolans as Sustainable Alternatives to Fly Ash***

**Tanner Davis, Barrett Novak, Caleb Douglas, Ethan Walters**

Faculty Advisor: Dr. Momen Mousa

***Exploring Bottom Ash as a Sustainable Alternative to Fly Ash in Concrete: Addressing Cost, Environmental, and Supply Chain Challenges***

**Trevor Colwell, Mason Jones, Ryley Marko**

Faculty Advisor: Dr. Momen Mousa

***Metakaolin as a Sustainable Substitute for Fly Ash in Concrete: Addressing Cost, Environmental, and Supply Chain Challenges***

**Ron Rawls**

Faculty Advisor: Dr. Momen Mousa

# Session B

## 10:30 - 11:50

### ROOM 241 A Real Women & Imagined Men

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***Literature and the Patriarchy: What about Men?***

**Alivia Ragsdale**

Faculty Advisor: Dr. Benjamin Mitchell-Yellin

***The Real-Life Riveter: A Microhistory of Hazel Porterfield***

**Lee Ann Ridgley**

Faculty Advisor: Dr. Jessica McQueston

***Are Makeup Practices an Evolutionary Product? A Philosophical Inquiry***

**Emily Garza**

Faculty Advisor: Dr. Thomas Meagher, Dr. Thomas Brommage

***My Boyfriend's a Robot: Artificial Intelligence and Attachment Theory***

**Hema Iyer**

Faculty Advisor: Dr. James Stykes

### ROOM 241 B Emotional Health

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***Relevancy of Intersectionality Regarding Intervention Counseling for Sexual Abuse Victims***

**Kalie Sorrells**

Faculty Advisor: Dr. Kimberly Bell, Dr. Cassandra Young, And Emily Garner

***The Role of Campus Connectedness in Addressing Student Mental Health***

**Haley Cook**

Faculty Advisor: Dr. Chelsea Ratcliff

***The Connections of Child Abuse and Revictimization; a Meta Analysis***

**Lillian Tischer**

Faculty Advisor: Dr. Janet Mullings

***Timeline and Results of the 2024 CHSS Skills Challenge***

**Jessica Bilsing, Guadalupe Centeno, Heidi Parra**

Faculty Advisor: Dr. Zachary Doleshal

**Scan For Abstracts**



# Session C

## 1:30 - 2:50

### Agriculture

#### ***Gender Income Inequality: Women's Perspective***

**Maria Arbizu, Cynthia Townsend, Gaspar Vega**

Faculty Advisor: Dr. Shyam Nair, Dr. Danhong Chen, Dr. Wolfskill

#### ***Women in the Workplace: Analysis of Factors Influencing Job Satisfaction***

**Emilie Brandes, Savannah Monahan, Rana Francone**

Faculty Advisor: Dr. Shyam Nair, Dr. Danhong Chen, Dr. Wolfskill

#### ***Analysis of the Traits and Habits of Conscious Dieters***

**Brooke Burkhalter, Cody Fisher, Lilly Kaspar**

Faculty Advisor: Dr. Shyam Nair, Dr. Danhong Chen, Dr. Wolfskill

#### ***Analysis of the Interaction of Stress and Binge Eating in Women***

**Mikaela Calami, Emily Freise, Sean Warren**

Faculty Advisor: Dr. Shyam Nair

#### ***The Relationship Between Food Choices and Health for Women***

**Mackenzie Grimes, Andrew Jensen, Delaney Northern, Alex Peralta**

Faculty Advisor: Dr. Shyam Nair, Dr. Danhong Chen, Dr. Art Wolfskill

#### ***Propagation Protocols for Southeastern Piney Woods Species***

**Ashley Hadley**

Faculty Advisor: Dr. Kaitlin Hopkins

#### ***Euphorbia***

**Alicia Louw, Albert Tsai, Marshall Wylie**

Faculty Advisor: Dr. Kaitlin Hopkins

### Biological Sciences and Chemistry

#### ***The Quantification of Non-Metric Traits in the Human Skeleton***

**Emily Breeze**

Faculty Advisor: Dr. Patrick Lewis

#### ***The Convoluted Optic Nerve of Chameleons***

**Emily Collins**

Faculty Advisor: Dr. Juan Daza

#### ***Biology Laboratory Teaching Assistant Influence on Undergraduate Course Outcomes***

**Noah Bliss**

Faculty Advisor: Dr. Steven Koether

#### ***From Publication to Practice: Do We Practice What We Preach?***

**Sierra Selman**

Faculty Advisor: Dr. Steven Koether

#### ***Construction of Fish Species Composition Surveillance Database of Lake Raven, Huntsville Texas using Environmental DNA***

**Oyinoluwa Bola, Tristan Getgood, Sabrina Perico**

Faculty Advisor: Dr. Sharmin Hasan

#### ***The Relationship Between Pollinators and the Carolina Jessamine***

**Karolina Carreon-Garcia, Kayla Osbourne, Geneva Pritchett**

Faculty Advisor: Dr. John Pascarella

#### ***Cryptic Diversity of Puerto Rico Highland Geckos***

**Victoria Brossig**

Faculty Advisor: Dr. Juan Daza

# Session C

## 1:30 - 2:50

### **Scoring Human Decomposition via the Megyesi System**

**Bethany Castillo**

Faculty Advisor: Dr. Sibyl Bucheli

### **Skull Postnatal Development of the European Leaf-Toed Gecko**

**Rebecca Mundo**

Faculty Advisor: Dr. Juan Daza

### **Predator Odor Detection by Carolina Wrens (*Thryothorus ludovicianus*)**

**Andrea Olise, Korede Omoniyi**

Faculty Advisor: Dr. Diane Neudorf

### **ACL Injuries**

**Faresa Fallah**

Faculty Advisor: Dr. Patrick Lewis

### **Understanding Facial Fractures**

**Kenady Vandiver**

Faculty Advisor: Dr. Patrick Lewis

### **Achilles Tendon Anatomy and Injury Patterns**

**Temidayo Phillip**

Faculty Advisor: Dr. Patrick Lewis

### **Digital Microscope Imaging of Bees in the Genus *Mellisodes***

**August Platek**

Faculty Advisor: Dr. John Pascarella

### **Growth and Survival of Nontuberculous Mycobacteria with Increasing Temperature**

**Layla Behrens, Kade Brackin**

Faculty Advisor: Dr. Todd Primm

### **The Mouse Gut Microbiome Composition is not Significantly Altered by Olive Oil Treatment**

**Madison Wolfrom**

Faculty Advisor: Dr. Todd Primm

### **Characterization of the Role of *dennd5b* During Embryonic Development**

**Timothy Tomkins, Alicia Mendoza**

Faculty Advisor: Dr. Sharmin Hasan

### **Taking the Complexity Out of an Aeroponics Growing System: Growing Herbs and Greens for Science Teaching and Learning**

**Anna Maloney, Amanda Broussard**

Faculty Advisor: Ava Fujimoto-Strait

### **San Antonio Climate Normals and the Effects of Global Warming**

**Lauren Lozano**

Faculty Advisor: Dr. Ross Guida, Dr. Joshua Gilliland

### **Arctic *Islandica* Growth During the Pliocene**

**Skylin Bromonsky**

Faculty Advisor: Dr. David Moss

### **Persistence of DNA in Water From an Actively Decomposing Cadaver for Human Identification**

**Erika Poole**

Faculty Advisor: Dr. Donovan Haines, Dr. Sheree Hughes

### **Integrating Realistic Industrial Models and Impirical Analysis in Chemistry Education: A Focus on Ternary Systems and Equilibrium Constants for Skill Development**

**William Villarreal**

Faculty Advisor: Dr. Adrian Villalta-Cerdas

# Session C

## 1:30 - 2:50

### **UV - Visible Spectroscopy of Myoglobin**

**Akia Kirt**

Faculty Advisor: Dr. David Thompson

### **Probing the Interaction of Dimethyl Trisulfide with Myoglobin**

**Syed Mujeeb**

Faculty Advisor: Dr. David Thompson

## **Business, Mathematics, & Engineering Technology**

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### **UNIPROBE - Universal Proximity Probe**

**Luke Bach, Michael Coleman, Jonathan Sulugui**

Faculty Advisor: Dr. Recayi Pecen

### **Mini Super Computer**

**Nygel Butler, Lucas Mseeh, Goodness Nwawuihe**

Faculty Advisor: Dr. Syed Hasib Akhter Faruqui

### **Mini Super Computer**

**Mark Cruz, Alexis Lozano, Gustavo Solis**

Faculty Advisor: Dr. Syed Hasib Akhter Faruqui

### **Building and Testing an IOT Camera**

**Daniel Cano, James Foreman, James Grantland**

Faculty Advisor: Dr. Recayi Pecen, Dr. Junkun Ma

### **Automation of Production in a Greenhouse**

**Jadon Cardell, Haily Lozano, Morgan Singer**

Faculty Advisor: Dr. Recayi Pecen, Dr. Iftekhhar Ibne Basith

### **Maintenance and Safety Application**

**Craig Dawson, Connor Kale**

Faculty Advisor: Dr. Recayi Pecen

### **Tree Trimming Robot**

**James Eisenhauer, Maximilian Hernandez, Clyde Law**

Faculty Advisor: Dr. Recayi Pecen, Dr. Junkun Ma

### **FieldsForge Homestead: Building Tomorrow**

**Fernando Erazo, Travis Lanford, Dawson Pope**

Faculty Advisor: Dr. Recayi Pecen, Dr. Ebrahim Karan

### **Soldering Delta Robot**

**Cassiel Fara, Bryson Moore, Michael Mares**

Faculty Advisor: Dr. Junkun Ma

### **Ammunition Inspection System**

**Lorenzo Farrales, Christian Gutierrez Lopez**

Faculty Advisor: Dr. Recayi Pecen

### **Integrating Haptic Gloves into Virtual Reality**

**Paige Horton, Martin Hust, James Wyman**

Faculty Advisor: Dr. Ulan Dakeev

### **Delta Robot**

**Kedar Jagarnauth, Legima Langmia, Chris Smith**

Faculty Advisor: Dr. Junkun Ma



# Session C

## 1:30 - 2:50

### ***Mold Injection Housing***

**Allen Jeffery, Henry Register, Bradley Proctor**

Faculty Advisor: Dr. Junkun Ma, Dr. Recayi Pecen

### ***Table-Top Microgrid Demonstration***

**Madison Lane, Rebecca Meyers, Parker Spence**

Faculty Advisor: Dr. Recayi Pecen

### ***RMLD Component Design and Manufacturing***

**Gianni Marinelli, Kelly Oliver**

Faculty Advisor: Dr. Recayi Pecen

### ***Electronic Ratchet Apparatus***

**Anthony Miranti, Felix Perkins, Julie Thurston**

Faculty Advisor: Dr. Suleiman Obeidat, Dr. Recayi Pecen

### ***Solar Parking Structure***

**Trevon Mosley, Alexander Velasquez, Maxwell Zeuschel**

Faculty Advisor: Dr. Recayi Pecen

### ***IoT Security: A Case Study on a Ring Security System***

**George Hendrickson**

Faculty Advisor: Dr. Narasimha Shashidhar, Dr. Cihan Varol

## **Criminal Justice & Psychology**

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### ***The Influence of Religion: Examining its Association with Personality***

**Ryan Munoz**

Faculty Advisor: Dr. Adam Natoli

### ***Representing Victims in Juvenile Lifer Parole Hearings: A Mixed-Methods Evaluation of Victim Impact***

**Jaritzzy Ochoa, Daniel Rodriguez**

Faculty Advisor: Dr. Stuti Kokkalera

### ***A Statutory Analysis of State-Level Protections for Immigrant Human Trafficking Survivors***

**Angela Moreno**

Faculty Advisor: Dr. Cassandra Gonzalez

### ***Medical Misconduct: Mental Health in Vulnerable Populations Behind Bars***

**Rachel Ziegler**

Faculty Advisor: Dr. Thomas Warren

### ***A Look into the Relationships Between Defense Mechanisms and Attachments Styles of Individuals Who Have Witnessed Domestic Violence of a Family Member Compared to Those Who Have Not***

**Karina Perez**

Faculty Advisor: Dr. Adam Natoli

### ***Sexual Consent Perceptions Vary by Target Intoxication and Evaluator Sex***

**Jordan Dozier**

Faculty Advisor: Dr. Daniella Cash

### ***Perceptions of Male-Versus Female-Perpetrated Grooming Behaviors***

**Lindsey Lanman**

Faculty Advisor: Dr. Daniella Cash

### ***Women in Policing***

**Della Duke**

Faculty Advisor: Dr. Elizabeth Hartsell

# Session C

## 1:30 - 2:50

### ***The Association Between False Memory and Verbal Fluency***

**Ryan Springs**

Faculty Advisor: Dr. Jeffrey Anastasi

### ***Exposing Injustice: This Misapplication of Criminal Justice Laws Against Black Women in Cases of Self-Defense***

**Makayla Nolen**

Faculty Advisor: Dr. Melissa Meltzer

### ***Test-Retest Reliability of the Emotional Regulation Knowledge Scale in Intellectual Developmental Disorders Population***

**Catarina Torres**

Faculty Advisor: Dr. Adam Natoli

### ***How Magnetic Fields Can Cure the Brain***

**Alexandra Andrews**

Faculty Advisor: Dr. Matthew Fuller

### ***Alexithymia's Connection with Alcohol and Substance Use: Variations Between Hispanic/Latine and Non-Hispanic/Latine College Students***

**Joseph Sumamait**

Faculty Advisor: Dr. Adam Natoli

### ***The Adaptive Defense Mechanisms Behind High Academic Performance: What Adaptive Defenses Predict GPA and Other Performance Metrics Over and Above General Psychological Health***

**Adonai Martinez**

Faculty Advisor: Dr. Adam Natoli

### ***Posttraumatic Growth as a Moderator of the Relationship Between Symptoms of Mental Illness and Quality of Life***

**Yuliana Garcia**

Faculty Advisor: Dr. Adam Natoli

### ***Comparing Racial Disparities in Incarceration and Sentencing: Impact on the Latino Community***

**Sophia Garcia-Gil Sarmiento**

Faculty Advisor: Dr. Edna Velásquez

### ***Substance Use's Association with Defense Mechanisms: Differences Between Those who Have or Have Not Lived with Individuals Misusing Drugs***

**Ashlyn Le-Roy**

Faculty Advisor: Dr. Adam Natoli

### ***Social Support and its Impact on the Mental Health of University Student-Parents***

**Haidyn Hokit**

Faculty Advisor: Dr. Bart Stykes

### ***Student Perceptions of Emotional Support Animals on Campus***

**Ellen Claassen**

Faculty Advisor: Jessica Lee

## **Education, Humanities, & Social Sciences**

### ***Taking the Complexity Out of an Aeroponic Growing System: Growing Herbs and Greens for Science Teaching and Learning***

**Amanda Brussard**

Faculty Advisor: Ava Fujimoto-Strait

### ***Student Engagement in the Middle School Classroom***

**Jazmine Mendez**

Faculty Advisor: Dr. Jennifer Morrison

# Session C

## 1:30 - 2:50

***Protagonists: A Study of Gawain and Gulliver***

**Brooke Woodall**

Faculty Advisor: Dr. Kimberly Bell

***The Lost Voice: An Analysis of Slave Authorship/Censorship by White Writers and Abolitionist Rhetoric***

**D'etra Johnson**

Faculty Advisor: Dr. Kandi Tayebi

***Floral Imagery in Early Female Literature***

**Jamie Albert**

Faculty Advisor: Dr. James Landrum

***Leveling Up: Video Games as a Storytelling Medium***

**Isabella Ortiz, Daniel Romero**

Faculty Advisor: Dr. Matthew Fuller

## Health Sciences

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***A Retrospective Analysis on the Relationship of Age, Personal Shooting Practice, and Years of Experience with Dynamic Shooting Scores***

**Kailea Oliver**

Faculty Advisor: Dr. Jennifer Bunn

***Tri-ing for Physical Activity: Experiences of Youth Sport Families in the Tri4Schools Non-Profit Program***

**Ethan Perez**

Faculty Advisor: Dr. Mayrena Isamar Hernandez

***A Key to Wellness and Disease Prevention***

**Christabel Ubah**

Faculty Advisor: Kendall Gragert

***The Influence of Screen Time on Pediatric Obesity***

**Isoken Aigbe**

Faculty Advisor: Dr. Tracy Bilsing

# Session D

## 3:00 - 4:20

## ROOM 230 A Physical Health

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***How TBIs Increase the Risk of Criminal Behavior***

**Haleigh Geiger**

Faculty Advisor: Kendall Gragert

***6-Week Lagree Interventional Case Series Study on Psychological, Posture, and Functional Movement Outcomes***

**Nia Matthews, Jose Romo**

Faculty Advisor: Dr. Mayrena Hernandez

***Obstacles Against Physical Education***

**Julian Villanueva**

Faculty Advisor: Dr. Rachael Wilcox

# Session D

## 3:00 - 4:20

### ROOM 241 A War at Home & Abroad

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***The Osage Murders: Reign of Terror, Native American Rights, and FBI Investigation***

**Jamie Albert**

Faculty Advisor: Katherine Gaskamp

***Double Victory: A Study of African American Activism During World War II***

**Emily Allen**

Faculty Advisor: Dr. Jeffery Littlejohn

***Selma to Saigon: Black Protest and Antiwar Activism during the Vietnam War. 1964-1968***

**Katherine Shaver**

Faculty Advisor: Dr. Lydia Fox, Dr. Jeffrey Littlejohn

***Beyond the Battlefield: Understanding Psychological Warfare during the Vietnam War***

**Peter McDow**

Faculty Advisor: Dr. Tracy Bilsing

### ROOM 241 B Understanding Birds & Beasts

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***Dissent in Dogs: Animal Welfare in Research***

**Ryan Springs**

Faculty Advisor: Dr. Maria Botero

***Comparing Habitat Distribution Models of Destroying Angels***

**Travis Rhodes**

Faculty Advisor: Dr. Christopher Randle

***Creating Species Distribution Models of the Numbat (*Myrmecobius fasciatus*) Using Biotic Factors***

**Travis Rhodes**

Faculty Advisor: Dr. Christopher Randle

***Species Distribution Modeling for the Endangered Houston Toad *Anaxyrus houstonensis* (Bufonidae)***

**Kinsey Holbrook**

Faculty Advisor: Dr. Christopher Randle

***A Test of Predator Odor Recognition in Rural and Urban Caroline Wrens***

**Kendall Kinsey**

Faculty Advisor: Dr. Diane Neudorf

**Scan For Abstracts**





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

**Braedon Smith**

**Fiona Wang**

**Mike Vaughn**

**Reg Pecen**

**Ali Mchiri**

**Elizabeth Hartsell**

**John Pascarella**

**Susan Duncan**

**Sharmin Hasan**

**Shyam Nair**

**Treston Smith**

**Momen Mousa**

**Kimberly Bell**

**Dione Sibley**

**Todd Primm**

**Carroll Nardone**

**Dena Horne**

**Hiranya Nath**

**Syed Hasib Akheteer Faruqui**

**Kandi Tayebi**

**Nabanita Baruah**

**Ruby Rodriguez**

**Lee Courtney**







Undergraduate Research Symposium  
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