

JSU Student Research Symposium
Spring 2025

From its 1995 inception in the College of Arts and Sciences, the Symposium has served to highlight the creative activities of JSU students. Beginning in 2017, the Symposium was extended to include the entire university. It is the intent of the Symposium to provide a forum to publicly display and acknowledge the best work of our students.

The faculty members who have provided guidance and mentoring to the student presenters are to be commended for their dedication. By spending many hours both inside and outside the classroom introducing students to research activity, these professors are investing in the future.

These student participants, by choosing to go beyond the requirements and limits of the classroom, have demonstrated an understanding of the importance of expanding and adding value to their educational experience. We are proud of their initiative and accomplishments.

Thank you for attending the Symposium and supporting our faculty and students in this endeavor.

Dr. David Thornton, Symposium Director

Cover design by Brianna Bailey

The Jacksonville State University, Colleges of Arts, Humanities, and Sciences, Business and Industry, Health Professions and Wellness and Social and Behavioral Sciences will also be holding an awards ceremony for the 2025 Symposium. We invite you to join us for this ceremony, which will take place in the Merrill Hall Atrium at 5:00 p.m. on Thursday, February 20, 2025.

Symposium Contributors:

David Thornton, Symposium Director
Jan Case, Symposium Scheduling
Shannon Robertson, Proceedings
Staci Stone, Publicity
Patrice Anderson, Student Cover Design
Allison Boswell, Social Media
Jan Case, Social Media
Chris Newsome, Online Submission
Kate Hamby, Online Submission
Tracy Casey, Program and Refreshments
Jason Cleveland, YouTube Videos
Arup Ghosh, YouTube Videos
Bethany Latham, Online Archive
Brooklyn Miles, Award Certificates

Symposium Judges:

Paula Barnett-Ellis, Professor, Library
Chris Clark, Assistant Professor of Kinesiology
Karlle Johnson, Associate Professor, Library
Allison McElroy, Professor, Art and Design
Falynn Turley, Associate Professor of Business Statistics
Kim Westbrook, Associate Professor, Library

Cover Design Participants:

Brianna Bailey (2025 cover design winner)
Tara Holbrooks
Khaled Mahmud
Brittani Myers
Laney O'Neal
Brandon Smith
Kelcy Williams
Adul Bashiru Yussif

Faculty Mentors: Patrice Anderson

Tuesday, February 18, 2025
11th Floor of Library

Morning Session (8:30 – 11:55) Room 1103 A & B

8:30-8:40 **Marsha Garcia** (UG)

Paper (Teresa Reed – Mentor)

Drill Empower Women and Kitchen Breaks The Norms

8:45-8:55 **Anna Grace Silvey** (UG)

Paper (Wesley Bishop- Mentor)

Fallen Soldiers of Calhoun County: The Stories and the Sacrifice

9:00-9:10 **Laney O'Neal** (G)

Paper (Bryce Lafferty – Mentor)

Play Art Paralysis Away

9:15-9:25 **Malachi Jackson-Talmadge and Donna Perez** (G)

Paper (C. Renee Renda- Mentor)

Behavior Analysis in Sports: Goal Setting Improves On- and Off-field Behaviors in Soccer Players

9:30-9:40 **Mackensey Carter** (G)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Efficacy of Multi-Ingredient Pre-Workout Supplementation: Insights into Strength, Power, and Exercise Performance in Resistance-Trained Individual

9:45-9:55 **Katherine Carter** (G)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Creatine Supplementation in Medical Rehabilitation: A Potential Catalyst for Recovery and Functional Improvement

10:00-10:10 **Riley Lovell** (UG)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Energy Drinks: Safety, Efficacy, and Performance Implications

10:15-10:25 **Mikah Morris** (UG)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Caffeine and Competitive Edge: The Impact of Acute Intake on Performance in Intermittent Sports

10:30-10:40 BREAK

10:45-10:55 **Hannah Walker** (UG)

Paper (Jimmy Triplett – Mentor)

Antibacterial Properties of Alabama Wildflowers: A Preliminary Study using the Kirby-Bauer Test

11:00-11:10 **Chloe James** (UG)

Poster (Grover Brown – Mentor)

Shedding Light on Trophic Cascades: How Sunlight Can Shape Small, Freshwater Ecosystems

11:15-11:25 **Madelyn Repzynski** (UG)

Paper (David Thornton – Mentor)

Comparing Android OS and iOS Security

11:30-11:40 **Corey Dunn** (UG)

Paper (Arup Ghosh - Mentor)

Closing the Digital Accessibility Gap: Overcoming Barriers for Elderly and Disabled Communities

11:45-11:55 **Alexis Bruce** (G)

Paper (Le Su – Mentor)

Targeting RNA Polymerase I in Ewing Sarcoma Therapy

Afternoon Session (1:00–5:30) Room 1103 A & B

1:00-1:10 **Marcus Gomez** (UG)

Paper (Tanya Sasser – Mentor)

Gender Dynamics in “Woman Hollering Creek”: The Influence of Culture and Religion

1:15-1:25 **Mia Harp** (UG)

Paper (Tanya Sasser – Mentor)

Unmasking The Shadows of Gotham: A Study of Identity in The Batman (2022)

1:30-1:40 **Juliana Thompson** (UG)

Paper (Teresa Reed – Mentor)

Tigers, Bears, Power, and Primitivism

1:45-1:55 **KatieSue Dole** (UG)

Poster (Allen Gilbert – Mentor)

NCAA's Policies on Conference Realignment: An Examination of Colleges and Universities Athletic Programs Transitioning to a New Level

2:00-2:10 **Carter Dingle** (UG)

Paper (Majid Koozehchian, Gina Mabrey – Mentors)

Creatine Supplementation

2:15-2:25 **Camryn Bren** (UG)

Paper (Majid Koozehchian, Gina Mabrey – Mentors)

Empowering Female Athletes: Optimized Nutritional Strategies for Health, Performance, and Recovery

2:30-2:40 **Kaysen Bibb** (UG)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Effects of Caffeine Ingestion on Pulmonary Kinetics and Muscle Fatigue During Severe-Intensity Cycling Exercise

2:45-2:55 **Jacob Walls** (G)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Why Combat Athletes Lose Weight for Competition

3:00-3:10 **Faith Bonness** (G)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Synergistic Potential of Creatine Nitrate and Caffeine on Cognitive and Exercise Outcomes: A Randomized, Double-Blind Crossover Study

3:15-3:25 **Elijah Hamilton** (G)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Nutritional regulation of muscle protein synthesis with resistance exercise: strategies to enhance anabolism

3:30-3:40 **Kalib Alexander** (G)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

The Long-Term Effects of Chronic Static Stretching on Skeletal Muscle, Hypertrophy, Strength, and Flexibility in Healthy Individuals

3:45-3:55 **Javion Curtis** (UG)

Paper (Jed Debruin – Mentor)

History Of Black Student Union

4:00-4:10 **Emma Riseborough** (UG)

Paper (Michael Burns – Mentor)

Investigation of the Mechanism and Purpose of Birds' Head Bobbing

4:15-4:25 **Ashley Brazier** (UG)

Paper (James Rayburn - Mentor)

*Developmental Impact of Eugenol on *Xenopus laevis* Embryos: A FETAX Study*

4:30-4:40 **Tyler Best** (UG)

Paper (Keith Foster – Mentor)

Artificial Intelligence in Cybersecurity

4:45-4:55 **Stutika Thapa Shrestha** (UG)

Paper (Arup Ghosh – Mentor)

Transforming Healthcare with Artificial Intelligence and Machine Learning in Elderly Caregiving

5:00-5:10 **John Osborne, Makenna Case and Emily Ligon** (UG)

Paper (Ashley Turner, Mentor)

Can an Instant Pot Sterilize a Bacterial Culture?

5:15-5:25 **Nallely Vega, Emmie Grizzard and Lucy Avina** (UG)
Paper (Ashley Turner, Mentor)
Can an Instant Pot Sterilize Media?

Wednesday, February 19, 2025
11th Floor of Library

Morning Session (8:15 – 11:30) Room 1103 A & B

8:15-8:25 **Gabrielle Hinkle** (UG)
Paper (Tanya Sasser – Mentor)
The Mystery of Lakewood High School

8:30-8:40 **Harli Smith, Hannah Scruggs and Lindsey Whaley** (UG)
Poster (CarolAnn LaShall and Sarah Faulkner– Mentors)
From the Garden to the Lab

8:45-8:55 **Deuntae Winston and Sabin Banjara** (G)
Paper (Eric Gamess – Mentor)
Exploring the Virtualization Potential of Raspberry Pi Devices with Proxmox VE

9:00-9:10 **Vanderick Fowler** (G)
Paper (James Rayburn – Mentor)
Evaluating the Developmental Toxicity of Acid Fuchsin: Insights from the Frog Embryo Teratogenesis Assay-Xenopus (FETAX)

9:15-9:25 **Cayleigh Fitzsimmons** (UG)
Poster (Lindsay Holman – Mentor)
Silvanus in Ex Viso Inscriptions

9:30-9:40 **Katie Moon** (UG)
Paper (Sarah Ellis – Mentor)
Deals to Doodles: A Children's Book Illustrator's Perspective

9:45-9:55 **Greenlee Orman** (UG)
Paper (Marija Reiff – Mentor)
Media Literacy: College Admissions Standards and COVID-19

10:00-10:10 **Katelyn Dunn** (UG)
Paper (Teresa Reed – Mentor)
An Illusion of Choice: An Analysis of Geoffrey Chaucer's Gender Politic

10:15-10:25 **Samaje Newton** (UG)
Paper (Michael Boynton – Mentor)
The Importance of Black Acting Techniques for Young Black Actors

10:30-10:40 **Chloe Jones** (UG)
Paper (Majid Koozehchian and Gina Mabrey – Mentors)
The Role of Fiber in Athletic Performance: A Missing Link in Sports Nutrition

10:45-10:55 **Mollee Walker** (UG)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Optimizing Nutritional Strategies for Physically Demanding Occupations: Enhancing Health and Performance in Tactical Athletes

11:00-11:10 **Lillian Humphreys** (G)

Paper (Majid Koozehchian and Gina Mabrey – Mentors)

Beyond Muscle Growth: The Critical Role of Dietary Protein in Endurance Training, Recovery, and Adaptation

11:15-11:25 **Jakob Skipper** (G)

Paper (Arup Ghosh – Mentor)

A Crowdsourcing Approach for Families to Adapt in the New Internet Landscape with Real-Time Online Safety Information

Afternoon Session (1:00–5:10) Room 1103 A & B

1:00-1:10 **Michelle Jones** (G)

Poster (Allen Gilbert and Gregor Kay – Mentors)

Athlete Endorsements and Consumer Behavior

1:15-1:25 **Meagan Chastain** (G)

Paper (Jennifer Savage and Chris Clark – Mentors)

Comparing Long-Term Outcomes in Fresh vs. Frozen Meniscal Allograft Transplants: A Critically Appraised Topic

1:30-1:40 **Jacob Cole** (G)

Paper (Chris Clark and Jennifer Savage – Mentors)

Utilizing Diagnostic Ultrasound to Diagnose Stress Fractures in High School Athletes: A Critically Appraised Topic

1:45-1:55 **Isabel Robles** (G)

Paper (Chris Clark and Jennifer Savage – Mentors)

Sway Medical vs. Sport Concussion Assessment Tool 5 Concussion Sideline Reliability: A Critically Appraised Topic

2:00-2:10 **Aquriya Muller** (G)

Paper (Jennifer Savage and Chris Clark – Mentors)

Marijuana Pain Management Effects Among NCAA Athletes: A Critically Appraised Topic.

2:15-2:25 **Luis Elizarraras** (G)

Paper (Majid Koozehchian and Gina Mabrey - Mentors)

The Effects of Combined Creatine and Caffeine Supplementation: Optimizing Exercise Performance

2:30-2:40 **Abby Swearingner** (UG)

Paper (Majid Koozehchian and Gina Mabrey - Mentors)

Effects of Pomegranate Supplementation on Strength, Endurance, and Post-Exercise Recovery

2:45-2:55 **Cianni Rhodes** (UG)

Paper (Majid Koozehchian and Gina Mabrey - Mentors)

Multi-Ingredient Pre-Workout Supplements: Synergistic Effects, Potential Risks, and Athletic Benefits

3:00-3:10 **Mea Leffall** (UG)

Paper (Majid Koozehchian and Gina Mabrey - Mentors)

The Role of Iron in Athletic Health and Performance: Challenges and Nutritional Approaches

3:15-3:25 **Austin Brown and Shane Dunaway** (UG)

Demonstration (Tanya Sasser – Mentor)

Warden's Way: A Prison-Themed Social Deduction Card Game

3:30-3:40 **Kailah Jones** (UG)

Paper (Teresa Reed – Mentor)

Empowerment or Conformity? A Visual Critique of Gender Roles in Bic's Ad

3:45-3:55 **Elizabeth Brown** (UG)

Paper (Gabriel Lonsberry – Mentor)

Benefits of Telehealth in The Occupational Therapy Field

4:00-4:10 **Brittani Myers** (G)

Paper (Jamie Runnells – Mentor)

A Case Study in Accessible AR and 3D Illustration

4:15-4:25 **Brianna Bailey** (G)

Paper (Patrice Anderson – Mentor)

Tailfeathers // The Need For Community, Recreation, & Green Spaces in College Towns

4:30-4:40 **Hunter Ballard and Victoria Bamigboye** (UG)

Poster (Anusree Mukherjee – Mentor)

Exploration of transition metal complexes for use in photoinduced electron transfer (PET) pathways

4:45-4:55 **Kathleen Madden** (G)

Paper (Lori Tolley-Jordan)

*Investigating the predatory behavior of the bumblebee Assassin Snail (*Anentome helena*) and the potential ecological implications in invaded freshwater systems.*

5:00-5:10 **Jalayah Hamilton, Gabrielle Kinnion, Landree Jones and Lauren Gonzalez** (UG)

Paper (Bri Turgeon and Jacob Church – Mentors)

Voices of the Campus: JSU Sociology Club's Student Issue Survey

Thursday, February 20, 2025
11th Floor of Library

Morning Session (8:00 – 10:30) Room 1103 A & B

8:00-8:10 **Qays Ghazal** (UG)

Paper (Donna Park – Mentor)

Border Separation in the Middle East: Legacy of the Sykes-Picot Agreement

8:15-8:25 **Prashant Basyal** (UG)

Paper (Monica Trifas and Arup Ghosh – Mentors)

The Machine Learning Race: Can Algorithms Truly Predict Bitcoin's Volatility

8:30-8:40 **Madisyn Barksdale, Kelly Pruitt, Summer Zamora and**

Kathleen Madden (UG)

Paper (Tenzing Ingty – Mentor)

Is Spring Break Coming Early? Effects of climate change on Alabama's native plant phenology

8:45-8:55 **Jamall J. James** (G)

Demonstration (Sean Chenoweth – Mentor)

Robotics and Radar Satellites being implemented to Solve Soil Degradation

9:00-9:10 **Kyra Parker** (G)

Paper (Le Su – Mentor)

Combination of HDAC and FYN inhibitors in synovial sarcoma treatment

9:15-9:25 **Eryn Oft** (G)

Paper (Jianping Coco Huang - Mentor)

Case Study: Raffe Studio, Inc.: Innovation in an Evolving Industry

9:30-9:40 **Michelle Jones** (G)

Paper (Jianping Coco Huang – Mentor)

Personal Touches and Consumer Behavior in the Restaurant Industry

9:45-9:55 **Hugh Sullivan** (G)

Paper (Majid Koozehchian and Gina Mabrey - Mentors)

Roles of Carbohydrates, Protein, and Amino Acids for Athletic Performance and Recovery

10:00-10:10 **Alicia Abner** (G)

Paper (Majid Koozehchian and Gina Mabrey - Mentors)

Iron Deficiency and Athletics Performance: Implication, interventions, and Strategies for Optimization

10:15-10:25 **Lydia Marbut** (UG)

Paper (Majid Koozehchian and Gina Mabrey - Mentors)

The Impact of Tart Cherry on Strength, Soreness, and Inflammation Following Strenuous Exercise

Awards Ceremony
February 20, 2025
5:00 p.m. Merrill Hall Atrium (2nd Floor)

Awards for Best Discipline Group

Arts and Humanities (Undergraduate and Graduate)

Health Professions and Wellness (Undergraduate and Graduate)

Science and Mathematics (Undergraduate and Graduate)

Awards for Best in Category

Best Paper/PowerPoint Presentation (Undergraduate)

Best Paper/PowerPoint Presentation (Graduate)

Best Poster (Undergraduate)

Best of Jax Mix

Best Cover Design

Houston Cole Library Award for Research Excellence

Award for Best of Showcase