

— congratulations —



TO OUR SPRING 2021
UNDERGRADUATE RESEARCH
SYMPOSIUM WINNERS!

Arts and Humanities

1st Place - Joseph Newell: Dickinson, Displacement, and her use of Defense Mechanisms to Cope with Psychological Trauma (Mentors: Dr. Lara Dodds and Dr. Dhanashree Thorat, English)

2nd Place - Lindsey Downs: Loss, Reckless Behavior, and Jane Austen's Realism in *Sense and Sensibility* and *Persuasion* (Mentor: Dr. Kelly Marsh, English)

Biological Sciences and Engineering

1st Place - Reese Dunne: Development and Implementation of a Magnesium-Based Finite Element Degradation Model for Orthopedic Implants (Mentor: Dr. Matthew Priddy, Mechanical Engineering)

2nd Place - Hannah Scheaffer: The Interference of PGD2 in the IL4 Anti-Inflammatory Pathway in THP1 Macrophages (Mentor: Dr. Matthew Ross, Comparative Biomedical Sciences, Center for Environmental Health Sciences, College of Veterinary Medicine)

3rd Place - James Warren: Bioprinting and evaluation of PLGA-KGN scaffolds as an augmentation to microfracture (Mentor: Dr. Steve Elder, Agricultural and Biological Engineering)

3rd Place - Sarah Hobbs: Characterization of Antifungal Activity of Strain A against aflatoxin producer *Aspergillus flavus* (Mentor: Dr. Shien Lu, Biochemistry, Molecular Biology, Entomology, and Plant Pathology)

3rd Place - Anna Gamblin: Annual Coastal Bird Community Response to Natural Vegetation Succession on Dredge-Spoil New Round Island (Mentor: Dr. Raymond Iglay, Wildlife, Fisheries, and Aquaculture)

Physical Sciences and Engineering

1st Place - Hailey Jamison: Sorption of As(III) Using Fe₃O₄ Nanoparticles Dispersed on *Guadua chacoensis* Bamboo (Si-char) and Its Redox Transformations (Mentor: Dr. Todd Mlsna, Chemistry)

2nd Place - Nirmal Bhatt: Thermo-Mechanical Modeling of Tubular Receivers for Solar Energy Storage (Mentor: Dr. Like Li, Mechanical Engineering)

3rd Place - Grace Williams: Determination of Mechanical Properties of Sandwich Composite Components (Mentors: Dr. Rani Sullivan and Mr. Robert Wolz, Aerospace Engineering)

3rd Place - Nathan Frey: Computational analysis of benzene-fused and extremely twisted pyrene-fused N-heterocyclic germynes and boranes (Mentor: Dr. Edwin Webster, Chemistry)

3rd Place - James Dye: Acoustic Levitator in Motion (Mentors: Dr. Zhenhua Tian and Dr. Jichul Kim, Aerospace Engineering)

Social Sciences

1st Place - Emily Davis: Implementing Empathy in Future Healthcare Workers: Injury and Illness (I2) Simulation (Mentors: Dr. David Buys, Mrs. Ann Sansing, and Ms. Jasmine Harris-Speight, Food Science, Nutrition, and Health Promotion)

2nd Place - Nicole Mejia: Do You Care about Clutter?: Hoarding and Apathy (Mentor: Dr. Mary E Dozier, Psychology)

3rd Place - Khirsten Wilson: Bystanders to Bullying: Coping Mechanisms Involved in Challenging Hostile Workplace Dynamics (Mentor: Dr. H. Colleen Sinclair, Psychology)

3rd Place - Maya McWilliams: Exploring the Relationship between Food Insecurity and Asthma in Mississippi (Mentors: Dr. Bizu Gelaye and Dr. Mary M. Wesley, Epidemiology, Harvard T. H. Chan School of Public Health, Delta Scholars Program)

Community Engagement Research Track

**Sponsored by the Center for Community-Engaged Learning

1st Place in Arts and Humanities - McKenzie Johnson: Ethical and Empathetic Research in Architectural Education (Mentor: Alexis Gregory, School of Architecture)

1st Place in Biological Sciences and Engineering - Cristina Griffith: Precision Agriculture Technologies for Small Farmer Adoption (Mentors: Dr. Jeff Johnson and Dr. John Wes Lowe, Agricultural Economics and Agricultural & Biological Engineering)

1st Place in Social Sciences - Kristin Williford: Food Insecurity and Anxiety Among Mothers During COVID-19 (Mentor: Dr. Rahel Mathews, Food Science, Nutrition, and Health Promotion)

Public Health Research Competition

**Sponsored by the Department of Food Science, Nutrition and Health Promotion

1st Place - Nicole Mejia: Do You Care about Clutter?: Hoarding and Apathy (Mentor: Dr. Mary E Dozier, Psychology)

2nd Place - Amy Pham: The Relationship between Obesity and Sleep Quality in College Women (Mentors: Dr. Terezia Tolar-Peterson and Nicole Reeder, Food Science, Nutrition, and Health Promotion)

3rd Place - Emily Davis: Implementing Empathy in Future Healthcare Workers: Injury and Illness (I2) Simulation (Mentors: Dr. David Buys, Mrs. Ann Sansing, and Ms. Jasmine Harris-Speight, Food Science, Nutrition, and Health Promotion)

3rd Place - Katie Evans: Efficacy of Plant-Based Antimicrobial against Foodborne *Salmonella* spp. in Hummus Stored at Refrigerated and Abusive Temperatures (Mentor: Dr. Shecoya White, Food Science, Nutrition and Health Promotion)

Theta Tau Tomorrow Builder Award

**Sponsored by Theta Tau Professional Engineering Fraternity

Shanika Musser: Potential of biochar for the removal of waterborne microbial contaminants (Mentor: Dr. Benjamin Magbanua, Rula School of Civil and Environmental Engineering)



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