

2025 Office of Student Research and Scholarly Activity Symposium

Poster Presentations – Biology

7 Presentations in the 2nd Floor C Wing

Poster Location	Author(s)	Title	College/Major	Mentor(s)
C1a	Chavis ☞	Investigating the Role and Regulation of Ghrelin (Hunger Hormone) in Diet-Induced Obese Zebrafish	CoSTEM/Biology	Gupte
C1b	Gonzalez-Milian	Assortative Mating in guppies: do artificially selected phenotypes impact male mate preferences?	CoSTEM/Biology	Cashner
C2a	Heatherly	Indirect Effects of Artificial Selection on Mating Display Frequency in Male Guppy (<i>Poecilia reticulata</i>)	CoSTEM/Biology	Cashner
C2b	Litchfield	Enrichment Strategies for Captive Sea Turtles	CoSTEM/Biology	Cashner
C3a	Lorance ☞ and Ogbu*	Investigating the Effect of High-Fat Diet on Genes Associated with Cognitive Function of Zebrafish	CoSTEM/Biology	Gupte
C3b	Vincent ☞ et. al	Glucose-Mediated Modulation of Insulin Sensitivity and Glucose Transport in Mature Adipocytes	CoSTEM/Biology	Gupte
C4a	Zahn and Dunavant	Development of a Prosthetic Hand	CoSTEM/Biology	Pitts

☞ 2024-2025 OSRI Student Research Grant Recipient; *Graduate Student

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Poster Presentations – Chemistry

11 Presentations in the 2nd floor A Wing

Poster Location	Author(s)	Title	College/Major	Mentor(s)
A1a	Banta	Metals and Their Concentrations in Cocoa	CoSTEM/Chemistry	Hiatt
A1b	Faulkner	Solubility Analysis of Ursolic Acid	CoSTEM/Chemistry	Mann
A2a	Garcia and Burton	Beyond the Expiration Date: Quantifying Fluoxetine with GC-MS	CoSTEM/Chemistry	Hiatt
A2b	Hendricks	Wet Digestions of Cocoa Powder	CoSTEM/Chemistry	Brennan and Hiatt
A3a	Jones and Eagle	Development of an GC-MS Method for Simultaneous Analysis of Fragrance oils in Candle Samples	CoSTEM/Chemistry	Brennan
A3b	Mondesir	Analyzing Chocolate's Stimulants: GC-MS Detection of Theobromine and Theophylline	CoSTEM/Chemistry	Hiatt
A4a	Patel and Snyder	The Antimicrobial Effects of Temporary Hair Dyes on Beneficial Scalp Microbiota	CoSTEM/AGRI, BIOL and CHEM	Wickramarathne and Pathiranage
A4b	Patel	Extraction and Isolation of Coumarin from Natural Products	CoSTEM/Chemistry	Pathiranage
A5a	Rust	Conformational Analysis of 1-Indanol Using Vibrational Circular Dichroism Spectral Similarity	CoSTEM/Chemistry	Covington
A5b	Snyder	Azo Hair Dyes: Synthesis, Application, and Color Variability	CoSTEM/Chemistry	Wickramarathne and Pathiranage
A6a	Williams	Formulation and Stability Evaluation of Shampoo and Conditioner Products	CoSTEM/Chemistry	Pathiranage

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Poster Presentations – AGRI, COMP SCI, EES, EAP, GIS and MATH

10 presentations in the hallway leading to the B/C wings


Poster Location	Author(s)	Title	College/Major	Mentor
BC1a Monitor	Aguirre (canceled 9:20 23 Apr)	Mapping Climate Change Risk: Flood Vulnerability along the Cumberland River in Clarksville, TN	CoSTEM/GIS	Judge and Wilson
BC1b	Bridgers and Miner	Comparative Assessment of Soil Arthropod Communities in Pasture and Forest Soils	CoSTEM/AGRI	Sudbrink and Wickramaratne
BC2a	Cannan and Robinson	Petrology and Correlation of Cenozoic Volcanic Dacite and Tuff units in Knoll Basin, NE Nevada	CoSTEM/EES	Deibert and Camilleri
BC2b	Harris	Predictive Analysis of Treasury Bills	CoSTEM/CS & Math	Akinyemi
BC3a	Jenkins and Clarks	Petrologic and Geochemical Correlation of the Jarbidge Rhyolite in Knoll Basin, NE Nevada	CoSTEM/EES	Deibert and Camilleri
BC3b	Jumonville	ModelMuse: An upgrade in Groundwater Flow Modeling – Coming soon to APSU	CoSTEM/EES	Dunkle
BC4a	Martinez et. al	Comparing Four Methods for Determining the Refractive Index of a Glass Prism Using a Multi-Wavelength Laser and a Versatile Optical Setup	CoSTEM/EAP	Donev
BC4b	Risner and Clay	Heavy Liquid Separation Techniques for Detrital Zircon Geochronology of Cambrian Sandstone in Middle Tennessee	CoSTEM/EES	Deibert
BC5a	Rodriguez 🏆 and Warth 🏆	Quantifying the Mechanical Properties of 3d-Printed Resin Materials	CoSTEM/EAP	Vaughn
BC5b	Skau	Retrospective Insights in Choosing a Career in Engineering	CoSTEM/EAP	Vaughn

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Poster Presentations – All Graduate Students

9 Presentations in the hallway leading to the 2nd floor D/A wings

Poster Location	Author(s)	Title	College/Major	Mentor(s)
DA1a	Alloway	Documenting darter diversity: systematic evaluation of <i>Etheostoma duryi</i> , Blackside Snubnose Darter, and <i>Etheostoma flavum</i> , Saffron Darter (Percidae)	CoSTEM/BIOL	R. Johansen
DA1b	Bello	Predictive Modelling for Identifying Vulnerable Populations at Risk of Unemployment or Underemployment	CoSTEM/CSQM	Md Bhuiyan
DA2a	Koonce	Case Study: Examination of Discourse Elicitation Stimuli for a Person with Chronic Fluent Aphasia	CoBHS/SPCH-LANG Pathology	Kleinhans and Brandon
DA2b	Morse	Cyber-attacks on the rise: What are they and is the U.S. prepared?	CoSTEM/CSQM	Hasan and Bruster
DA3a	Palmer  and Ferrell	Investigating the Influence of Maternal Care on Isopod Movement	CoSTEM/BIOL	Cashner
DA3b	Perry	Mental Health Services and College Students' Retention Rates: A Post COVID-19 World	CoBHS/Counseling	Coggins
DA4a	Poteete	Efficacy of Integrated Phonological Awareness Intervention	CoBHS/SPCH-LANG Pathology	Bancroft
DA4b	Tillett	Natural Disaster Effect on the Agricultural Industry	CoSTEM/CSQM	Sahi
DA5a	Trimpe	Genetic Evaluation of Conservation Efforts for <i>Etheostoma sitikuense</i> , Citico Darter	CoSTEM/BIOL	R. Johansen

BIOL – Biology; CSQM=Computer Science Quantitative Methods; SPCH-LANG=Speech and Language

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Poster Presentations – Health

23 Presentations in the 2nd floor D wing

Poster Location	Author(s)	Title	College/Major	Mentor(s)
D1a	Alcala	Procalcitonin: Antibiotic Stewardship and Costs of Sepsis	CoSTEM/MLS	Semler
D1b	Bau	Extended-Spectrum Beta-Lactamase: Growing Antibiotic Resistance Trends and Risks to Healthcare	CoSTEM/MLS	Semler
D2a	Boyd 🏆	Combining yoga with expressive writing to improve incarcerated person health: A waitlist control randomized experiment	CoBHS & Criminal Justice	Ferdik
D2b	S. Brown et. al	C-reactive Protein in Relation to Cardiovascular Disease	CoBHS/CoSTEM	Nolting et. al
D3a	Brown and Wordlaw-Scruggs	Assessing the Discrepancies Between Automated Platelet Clump Flags and Manual Smear Review	CoSTEM/MLS	Semler
D3b	Dubois et. al	Total Cholesterol and HDL: Relation to Heart Health	COBHS/CoSTEM	Nolting et. al
D4a	Goulet	Validation of the BD BACTEC Lytic 10/Anaerobic/F Medium Bottles	CoSTEM/MLS	Semler
D4b	Horner and Ramirez	Illness Insights: Seasonal Trends of the Flu and COVID-19 in Southern Kentucky and Upper Middle Tennessee	CoSTEM/MLS	Semler
D5a	Luck et. al	The Importance of Maintaining and Understanding Iron Levels	CoBHS/CoSTEM	Nolting et. al
D5b	Mahawong et. al	From Ocean to Orchard: The Key to a Healthier You	CoBHS/CoSTEM	Nolting et. al
D6a	Mixon-Rodriguez	How the Growing Risk of Hypertension Affects College Students	CoBHS/CoSTEM	Nolting et. al
D6b	Momin et. al	Body composition, Obesity, and Cardiovascular disease	CoBHS/CoSTEM	Nolting et. al
D7a	Perkins et. al	CVD Risk Pertaining Diabetes, HbA1C, and Glucose	CoBHS/CoSTEM	Nolting et. al
D7b	Richmond	Utilizing Seasonal Trends to Influence Test Orders: Reducing Waste of Resources by Diagnosing with Data	CoSTEM/MLS	Semler













Poster Location	Author(s)	Title	College/Major	Mentor(s)
D8a	Ritenour	Troubleshooting the effectiveness of using a Massive Transfusion Protocol and how it can reduce waste, cost, and improve efficiency of distribution of blood products in hospitals.	CoSTEM/MLS	Semler
D8b	Robertson et. al	Sodium, Sugar-Sweetened Beverages Impact on Cardiovascular Disease	CoBHS/CoSTEM	Nolting et. al
D9a	Sellers et. al	Fueling for the Day: College Students' Breakfast Frequency and Healthy Beverage Choices	CoBHS/CoSTEM	Nolting et. al
D9b	Sherrill	HIT and its Effects of Routine Chemistry Testing	CoSTEM	Semler
D10a	Stiles	An Analysis of Post Analytical Expired Blood Products at Tristar Centennial Medical Center	CoSTEM/MLS	Semler
D10b	Tanafon	Platelet transfusions are essential for managing thrombocytopenia, surgical bleeding, and hematologic disorders	CoSTEM/MLS	Semler
D11a	Thompson	Daratumumab (Darzalex) treatment interference during serological testing in patients with multiple myeloma at VA Medical Center (Nashville, TN)	CoSTEM/MLS	Semler
D11b	Tomasini	Understanding Specimen Rejection: Causes, Consequences, and Prevention	CoSTEM/MLS	Semler
D12a	Yarbrough et. al	How Smoking and Vaping Effects CVD	CoBHS/CoSTEM	Nolting et. al
D12b	Darden	Blood Culture Contamination Reduction	CoSTEM/MLS	Semler


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MLS=Medical Laboratory Science; CoBHS/CoSTEM are represented by HHP (Public Health), Nursing and MLS

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Poster Presentations – Psychology, National Security Studies and Middle College 9 Presentations in the 2nd floor B Wing

Poster Location	Author(s)	Title	College/Major	Mentor(s)
B1a	Bunting and Myers	Examining Demographic Disparities in Teacher-Student Relationships in Early Elementary Education	CoBHS/PSY	Li
B1b	Bunting	Co-development of Math Anxiety and Math Gender Stereotypes in Male and Female Secondary School Students	CoBHS/PSY	Li and Hatz
B2a	Galassi 	Printing the Future; More Efficient Skeleton Models for Education	CoSTEM/Middle College/GIS	Wilson
B2b	Golden et. al	The Associations Between Parental Math Anxiety and Young Children’s Home Math Environment	CoBHS/PSY	Li
B3a	Holt   and Daaga  	What factors impact student learning with students who exhibit math anxiety?	CoSTEM/Middle College	Vogel
B3b	Knox  	Analysis of Women’s Experiences in STEM	CoSTEM/Middle College	Dunkle
B4a	Samuelson et. al  Golden  Myers  Bunting  Dean 	Understanding How Early Childhood Adversity and Executive Function Shape College Students’ Academic Success	CoBHS/PSY	Li et. al
B4b	Wenck and Myers	The Associations Between School Belonging and School Adjustment among Third Grade Elementary Students	CoBHS/PSY	Li
B5a	Wolfe	A Curriculum Comparison of Master’s in National Security Studies “Sister Programs” for Implementation Consideration at APSU	CoBHS/National Security Studies	Carlin

 Middle College Student;

 Posters at the Capitol Participant – 2 April 2025

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