

2025 Student Research Forum Program

April 17, 2025
University Union Ballrooms



Poster Session 11am-1pm

Poster number	Presenters	Title
18	Angela Bellan	Occupational Engagement and Caregiver Education in the NICU: A Scoping Review of Facilitators and Barriers to Early Intervention Access
6	Angela Blankenship	Utilizing the Magic School Chatbot as a Tutoring Tool for Scaffolding Writing in the Inclusive 8th Grade Middle School English Classroom
48	Sydney Braithwaite	Solvent Effects on Chlorinated and Brominated DBPs
38	London Brooks	Arts and the Honors College: Investigating Perceptions and Realities

Poster Session 11am to 1pm, Union Ballrooms

Poster number	Presenters	Title
32	Stephanie Colón	The Experiences of Direct Support Professionals Working with Autistic Adults: An Exploratory Study
50	Alyssa Cummings, Eliot DeVita, Emmanuela Onyilokwu, Anna Roth, Sofia Montoro	Labeling of Intimate Partner Stalking Among College Students
68	A.J. DePaolis	Vocal Health: The Anatomy of the Voice
46	Mame Diop	AI & DEXA Scans: Ethical Issues and the Role of Anticipatory Ethics
58	Caitlin Fromm	Exploring Common Assessments of Language and Pragmatics Following Right Hemisphere Damage: A Systematic Review
54	Pei Ge	Investigating The Effectiveness of Using Educational Robotics-Based Storytelling Approaches for Enhancing Children's Expressive Language Development
40	Rebecca Harasymczuk	The Impact of Microplastic Exposure on Vegetable Plants: Iceberg Lettuce (<i>Lactuca sativa</i>) and Cherry Belle Radishes (<i>Raphanus sativus</i>).
42	Christina Hatch, Lindsay Deegan, B.S.	Optimization of Test Time for the Auditory Brainstem Response

Poster number	Presenters	Title
64	Stephanie Heffron, Ben Richter and Emma Vacca	Investigating communication awareness and speech-language pathology referral practices of medical professionals for post-stroke care: Preliminary insights from an international survey
52	Ian Holmes	3D Printed Skin: An Anticipatory Ethical Analysis
26	Eunice Hong	Ethical and Anticipatory Ethical Analysis on Neural Style Transfer
28	Brianna Hughes	Differentiated Instruction For Sixth Grade Multilingual Learners
56	Maxwell Kanner	The Effects Coal Ash has on the Microbiome of the Wood Frog
36	Joshua Kaufman	Analyzing the Relationship Among Team Climate, Athlete Satisfaction, and Transfer Intention in Collegiate Sports
4	Nataly Loza	Navigating Identity: Bilingualism and Cultural Identity
44	Aaliyah Lucius	Public Perception of Early CTE Detection in the NFL: Ethical, Social, and Policy Implications

Poster Session 11am to 1pm, Union Ballrooms

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2	Judy Martini	The Impact of Rhythmical Songs on Attention and Listening Comprehension of Autistic Preschoolers
62	Faith Matthews	Is Salinization of Freshwater a Driver of Invasive Male Crayfish Success in Maryland?
66	James Minter, Ignacio Burmida-Lima	Green Bank Telescope HI Spectra of Supernova Host Galaxies
8	Ezekiel Morris	Pinpointing target genes of D. discoideum targeted by Uropathogenic E. Coli Virulence Factor
14	Michelle Lopez Paez	Artificial Intelligence & Animation
70	Ella Portolese	Artificial Intelligence and the Fashion Industry
12	Ana Rodriguez	Teaching Phonics Fundamentals: Utilizing Play-Based Learning to Strengthen Decoding Skills
16	Benjamin Rozenywaig	AI Assisted Technology Detects Nanoparticles in Water: Ethical Considerations

Poster Session 11am to 1pm, Union Ballrooms

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22	Daniel Sackey	Antibiotic Overuse and the Effects of TirC in Dictyostelium edited by CRISPR-Cas9
10	Jeremiah Seib, Tyler Hannesson	Preparation and Characterization of Novel High Temperature Superconductors (In, Sn) BaCaCuO
30	Elaine Shaw, Katie Esser, Karina Ball, Courtney King	Effects of position, age, and hearing status on speech-in-noise recognition
24	Kristin Tatelman	Exploring the Relationship Between Sensory Regulation and Occupational Engagement of Autistic Children with Dogs
60	Christopher Toomer, Kayode Adegbo, Madison Previti, and Marcus Rose	Modulating Oxygen Content in Strontium Titanate (STO) and Calcium Manganese Oxide (CMO)
34	Matthew Vollmuth	Synthesis of Parabens and (+)-aristoquinoline: Expansion of Mechanistic Pathways in Organic Chemistry
20	Ben Wallace, Zaid Qureshi and Jakob Winterle	Investigating redox behavior and quantum confinement effects in gold clusters

Lunch
University Union Ballroom E
12:00pm

Oral Presentations Session A 1pm-3pm

University Union 323

Presenter	Time	Title
Tara Youngborg	1:00pm	Not a town but a landing page: The ghost town of Frenchtown, Maryland and technological loss
Folashade Agbolade	1:20pm	Using Immersive Virtual Reality to Enhance Intercultural Sensitivity
Paige Zaleppa	1:40pm	Using AI Assistants in the Creation of an Academic Program of Study (PoS) in CyberAI
Jeff Hanson	2:00pm	The Use of Competency-based Statements in Assessing Student Knowledge, Skills, and Abilities: A study in a Network Security Class
Alisha Hancock	2:20pm	Scholarships for Students Repeating Principles of Microeconomics
Linh Tran	2:40pm	Factors that affect retirement or pension income in the United States in 2020 and 2005

Oral Presentations Session B 1pm-3pm

University Union 319

Presenter	Time	Title
Peter Almonte	1:00pm	Studying the Diffusion of 200 nm Nanoparticles in Unentangled Polyethylene Glycol Diacrylate Solutions Using Single-Particle Tracking
Madison Previti, Christopher Toomer and Kayode Adegbo	1:20pm	Modulation of Electrical Transport and Structural Properties of CaMnO ₃ Epitaxial Thin Films
Jorge D. Carballo Morales	1:40pm	Diet evolution and diversification of bats
Katie Esser	2:00pm	The Best Seat in the House: How Listener Position Impacts Speech Understanding and Listening Effort in a Simulated, Noisy Environment
Morgan Barkhouse	2:20pm	Acoustic and Non-Acoustic Factors Contributing to the Spatial Release from Masking in Older Adults
Ariana Bennaim	2:40pm	Gated Word Recognition in Adult Cochlear Implant Users: Effects of Spectral Resolution and Cognitive Function

Oral Presentations Session C 1pm-3pm

University Union 321

Presenter	Time	Title
Milon Biswas	1:00pm	Balancing Privacy and Utility: A Unified Approach to Noise Injection Mechanisms for Privacy Preserving Machine Learning.
Usman Musa	1:20pm	Digital Twin Empowered Smart Transportation Cyber-Physical System with Deep Reinforcement Learning
Papa Pene	1:40pm	SHEADP: A Federated Learning Framework Integrating Selective Homomorphic Encryption and Advanced Differential Privacy
Almustapha Wakili, Almustapha A Wakili, Kamoruddeen A Amuda, Babajide Asaju, Tayyab Ali	2:00pm	Hybrid CNN+ViT Model (TumorVisNet) for Enhanced Brain Tumor Segmentation
Gabriel Amaizu	2:20pm	FedViTBloc: Secure and Privacy-Enhanced Medical Image Analysis with Federated Vision Transformer and Blockchain
Yixin Chen	2:40pm	FSPFEL: Towards Practical Fair Semi-Synchronous and Power-Aware Federated On-Device Learning on Heterogeneous Power-Constrained Devices

Poster Session 4pm-6pm

University Union Ballrooms

Poster number	Presenters	Title
65	Theresa Abalum	CRISPR/Cas9 Knockout of TirB: Discovering New Pathways in Innate Immune Signaling
26	Abdullahi Abdullahi	Distributed Misbehavior Detection System for Cooperative Driving Networks
53	Claire Alley	Were Oceans Made the Same in the Paleoproterozoic? The Chemostratigraphic Variation Recorded by Metabasalts in the 1.9 Ga Jormua Ophiolite Complex, Finland
43	Sadie Barrett, Alisa Martin, and Marie Kouassi	Breaking Barriers to the Ballot: A Study on Voter Access and Trust in Elections
17	Bailey Borkowski, Morgan Barkhouse	Spatial Release from Masking with Simulated Hybrid Cochlear Implant
38	Natalie Brownlowe, Jeffrey Bowerman	Modeling Crime on Baltimore City Road Network

Poster Session 4pm to 6pm, Union Ballrooms

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20	Jainson Cedillo	What do you see first?
58	Leah Collidge	Do Low HDI States Foster Environments Conducive to Radicalization?
44	Joshua Cronin	Does Emotion Influence the Flexibility of Cognitive Control?
34	Timothy DeLloyd	Crime Intensity in Baltimore City: Calculating, Graphing, and Relating to Travel Patterns
66	Zachary Dietz	Optical Band Gap Variance of STO Induced by Oxygen Reduction
35	Quinn Donarum, Morgan Barkhouse	A priori knowledge about the signal and binaural processing capabilities
49	Gray Doney	Impacts into sub-surface water pockets: A possible mechanism for Chaos terrain formation on Europa
7	Emily Fabeck	The Impact of Childhood Sexual Abuse on Pregnancy-Related Anxiety and Reproductive Intentions
36	Isadora Fink	Loneliness: Motivations to Change and Actual vs. Desired Social Connections

Poster Session 4pm to 6pm, Union Ballrooms

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22	Sylvia Van Fleet	Perceptions of Resources for Teaching and Learning in Family Science
16	Daniel Fleming, Zaid Qureshi	Physicochemical characterization of various inks and dyes for forensic analysis applications
13	Chase Frater, Audrey Gianelle, Aidan Powell	Graphing as a Tool to Support Covariational Reasoning
30	Lloyce Frimpong, Alex Lohse and Naomi Uiyoshiioria.	Synthesis and morphological control of Ag nanoplates using aromatic amines as a reducing agent
41	Nikki Golemboski	The Protection of Local Migrant Rights and Well-Being: Comparing Successes, Challenges, and Recommendations from Baltimore and Philadelphia's Government and Nonprofit Sectors
40	Lukas Hamann, Tyler Hannesson, Thomas Snarski	Magnetic, Optical, and Electronic Transport Properties of the FeCuB Compounds
62	Tyler Hannesson, Lukas Hamann and Thomas Snarski	Determination of iron and copper content in Fe-Cu-B compositional spread
64	Randi Haron	An Analysis of Thomas Adés's Tevot

Poster Session 4pm to 6pm, Union Ballrooms

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12	Katelyn Harro, Dariush Aligholizadeh and Efosa Owie	Interaction of gold nanoparticles with organic gunshot residue components found in gunpowders.
8	Hannah Hinterleiter	Implicit Biases Against Exonerees
54	Lucas Hoffman	Effects of Sucrose on Chlorination Rates of Phenolic Compounds
50	Alex Holtzman	Utilizing Kernel Density Estimations and Principal Component Analysis to analyze crime, population, and travel patterns.
61	Shaila Johnson	EdTPA supporting students with IEP's
24	Cayla Johnson	MAPK/ERK Signaling Pathway in Dictyostelium discoideum as a Potential Target for Escherichia coli TIR Proteins
19	Brigid Kane	But First, Let Me Take a Selfie: Impression Making on Social Media
37	Audrey Knight, Chinwendu Uche, Andrew McNeill and Katherine Tan	Quantitative Risk Assessment of Election Infrastructure Using Attack Trees

Poster Session 4pm to 6pm, Union Ballrooms

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60	Rachel Kramer, Mehnaz Falguni, Grace Igbinosun, Daniah Moultrie	Will it Cleave? How Lipopolysaccharide Structures Affect Complement Activation
31	Kyle Langenfelder	The Relationship of Dementia Worry, Anxiety, and Predisposition to Neurodegenerative Disease to Memory Self-Efficacy and Working Memory
14	Emely Larios, Angelika Kipenskaia, Samantha Desi, Gigi Gallagher, Christopher Green, Jonathan Guillen, Jay Ristau, Ian Heathcote, Ava Askandarian, Ella Hoffman, Paul Neary	The Effects of VR Nature on Stress and Anxiety
3	Caroline Little	Reducing Gender Stereotypes in the Beginning Band Classroom
2	Georgia Maier	Life's first breath
6	Faith Myers	The Effect of Professor Age and Gender on Student Perception of Professor Delivery of Course Information
55	Sage Nielson	Shifting Landscapes: The Style of Aleksandr Porfir'yevich Borodin through Symphony No. 2 and On the Steppes of Central Asia

Poster Session 4pm to 6pm, Union Ballrooms

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9	Lilly Norbeck	Gender in the Roman Empire: Norms, Perceptions, and Exceptionalities of a Binary System
4	Emmanuela Onyilokwu, Ruisha Prasai, Matthew Abell, Alissa Cabalu, Anna Roth	Examining the Role of Intersectional Identities in Women's Experiences of Stalking
39	Erin Ormsby	Speech Complexity and Spatial Release from Masking with Simulated Cochlear Implant Speech
27	Efosa Owie, Dariush Aligohlizadeh	Engineered Ag Nanorods for the Detection of N-nitrosodiphenylamine
57	Isabella Papaleonti, Nia Lamptey-Mills, Ruisha Prasai, Bria Smith	Differentiating Physiological Responses Between Moral and Physical Disgust
29	Riley Petrick	Lab-Based, Self-Report, and Naturalistic Prospective Memory Performance: Exploring the Relationship with Working Memory Capacity in Young Adults

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32	Diana Portillo	The Musculoskeletal Health of Musicians
68	Evan Powell	Decoding the origin(s) of ultramafic-mafic bodies in PA and DE
42	Zaid Qureshi	Detection of Volatile Organic Compounds using SERS from p-PDA Coated Nanoplates
51	Attia Robinson, Hailey Christoph	Passing the Microbial Baton: Maternal Microbiota Transfer in Northern Map Turtles
5	Gynelle Sackie-Mensah	Lights, Camera, Acceptance?: The Role video characteristics play in shaping public opinion on the legitimacy of transgenderism
18	Mauro Sgromo	Nuclear Binding Energy and Violations of the Equivalence Principle
25	Emma Shartle	Exploring the use of artificial intelligence to identify brain wave patterns associated with auditory processing disorder.
59	Sarah Smith	Creating Authentic Tasks in a 6th Grade Mathematics Classroom
48	Sena Sogut, Keely DeGasperis, Ian Quill, Robert Eastwood	Worry and Rumination's Impact on Anxiety: The Role of Emotional Reactivity

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11	Sabrina Srouf	The Identities and Orthographies of Arabic-English Student Writers
56	Emilie Stoudt, Teodora Consoli, Chloe Tran, Collin Ralph	The Influence of Mood Congruency on Attentional Control in the Simon Task.
15	Noam Straus	How Does Social Media Firm-Generate Content Influence Stock Performance?
70	Sebastian Tanguay	Attention in the World
52	Lauren Terrell, Kathryn Engler, Caroline Cassano, and Stephanie Duque	Relationship Between Task-Switching and Emotion
28	Luke Thress	Nanolithography and Art using Atomic Force Microscopy
10	Lukas Tibbels, Jakob Winterle	Synthesis and characteristics of Size Controlled Nanoclusters
33	Naomi Uiyoshioria, Dariush Aligholizadeh and Alex Lohse	Manipulation of surface energy to engineer 2D-anisotropic nanoparticle substrates

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46	Emma Vacca	Prosody in Cochlear Implant Users: A literature Review
47	Dana Wall	Accuracy or Appeal? What Drives Political News Sharing
23	Kay Walter	Effects of Position on Energetic and Informational Masking in Normal and Hearing-impaired Adults
1	Alexandra Watts	Gendered Economics
21	Amanda Wisoky, Mya Freeman, Brooke McConnell	Supporting Algebra-Intensive Courses for STEM Majors
63	Gabrielle Yeldell, Alyssa Cummings, Neelie DeVett Maatouq, Inna Ionin, Erin Mucha, and Lila Ward	Does emotion dysregulation influence positive emotion in worried and ruminative states?