



ASHLAND | College of Arts
UNIVERSITY | and Sciences

Undergraduate Research and Creative Activity
Symposium
April 22, 2026
John C. Myers Convocation Center

ORAL SESSION I: 8:15 A.M.-10:15 A.M., Trustees Room

Daniel McDonald Dean, College of Arts and Sciences	Welcome and Opening Remarks
Sadie Vanderzyden	Irenaeus on the Trinity: Word and Wisdom as God's Two Hands
Anna Corbel	Beauty, Leisure, and Justice: Can Aesthetic Experience Increase Human Flourishing Without Reinforcing Inequality? Faculty Sponsor: Dr. Robert Wyllie, History/ Political Science
Braeden Geist	Great Midwest Athletic Tables (GMAT): A Dynamic Website for Performance Tracking and Visualization Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Dhruval Anandkar Ian Kichurchak Noah Crenshaw	Modernizing Local Transit: A Resource-Locked Scheduling System for Ashland Public Transit Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Adam Keeling	Companion Huginn: The Wireless Vulnerability Advisor, Tester, and Auditor Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Hannah McCrea	On Dreams: Understanding the Meaning of Dreams Through a Psychological and Religious Lens Faculty Sponsor: Dr. Diane Bonfiglio, Psychology

ORAL SESSION II: 10:30 A.M.-11:45 A.M., Trustees Room

Javan Thompson Keegan Arnold	SafeChain - Safe, Controlled Data Sharing Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Camron Criddell Veronika Khomukha Aniket Patel	EagleFoundry: A Hub Connecting Students and Partner Companies Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Ashton Walker Gavin Zeager Jacob Rose	TechDeck Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Oleksandra Bibik	Soviet-Born Wounds in Ukraine: Holodomor Genocide and the Lingering Trauma of a Nation Faculty Sponsor: Dr. Diane Bonfiglio, Psychology
Bryce Bishop Marcus Miller Robert Pope	Ashland University Esports Website Refresh Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science

ORAL SESSION III: 10:30 A.M.-11:45 A.M., Faculty Room

Rian Spangler Zachary Vales Noah Marsh Jeremiah McKee	Restaurant Redo Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Robert Redman Lukas Schreck Jason Formani	Voice Up Athletics Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Nicholas Olquin Chloe Kovinchick Joshua Bachinsky Miles Irvin	Insight of AUTV Faculty Sponsor: Dr. David McCoy, Journalism and Digital Media
Adam Keeling Jesse Caudell	Fragility of Children's Online Privacy Faculty Sponsor: Dr. Abdulbast Abushgra, Cybersecurity
Lexi Howe Mary Kate Prall Elizabeth Slayton	Killer Data Faculty Sponsor: Dr. Herbert Homan, Criminal Justice

ORAL SESSION IV: 12:00 P.M.-1:15 P.M., Trustees Room

Adam Keeling Jesse Caudell	Hijacking the Sky: Behavioral Analysis of Consumer FPV Drone Communications Faculty Sponsor: Dr. Abdulbast Abushgra, Cybersecurity
Nora Bacon	Gendered Utopia in What is to be Done and Mizora Faculty Sponsor: Dr. Robert Wyllie, History/ Political Science
Jesse Caudell	Artificial Intelligence's Application in Automating Server Setup Faculty Sponsor: Dr. Abdulbast Abushgra, Cybersecurity
Bryce Bishop	Kabr's Journal: Destiny 2 Raid Compendium Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Ashton Walker John Wheeler Dylan Johnson	Using the Nintendo Wii as an Entry Point into a Network Faculty Sponsor: Dr. Abdulbast Abushgra, Cybersecurity

ORAL SESSION V: 12:00 P.M.-1:15 P.M., Faculty Room

Brendan Dee	Design and Implementation of a Cost-Effective Cyber Range Platform to Enhance Experiential Cybersecurity Education Faculty Sponsor: Dr. Abdulbast Abushgra, Cybersecurity
Hallie Eighinger Rob Snyder Saylor Starkey	Minds and Morals Faculty Sponsor: Dr. Herbert Homan, Criminal Justice Dr. Michaela Quintero, Psychology
Zack Van Farowe	The Church as Alternative Polis: John Howard Yoder's Vision for Christian Social Action Faculty Sponsor: Dr. Craig Hovey, Religion
Aniket Patel Alvaro Boned Gonzalez	Prepwiser: An AI-Powered Platform for Real-Time Interview Practice and Feedback Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Sydney Vu	Why Are Red Cedars Invasive? Faculty Sponsor: Dr. Jeffrey Weidenhamer, Chemistry

Oral Session VI: 1:30 P.M. -2:45 P.M., Trustees Room

Ayden Mason	Isolation of Bacillus and the Host Range of the Bacteriophages found with them Faculty Sponsor: Dr. Paul Hyman, Biology
Melanie Eichler	The Development and Purification of a Phosphazene-Based Drug Delivery System Faculty Sponsor: Dr. Nicholas Johnson, Chemistry
Andrew Ehrhardt	Bayes' Theorem: From Origins to Modern Decision Making Faculty Sponsor: Dr. Yong Ju Lee, Mathematics
Aniket Patel	Two-Stage Driver Monitoring System: Road-First Violation Detection with On-Demand Driver State Analysis Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Joshua Carpenter	The Art of Story Telling in Professional Wrestling Faculty Sponsor: Dr. Hilary Donatini, English

Oral Session VII: 1:30 P.M. -2:45 P.M., Faculty Room

Sylvia Mohn	More Than an Outcast - Marginalization, Voice, and Interpretation of the Samaritan Woman Faculty Sponsor: Dr. Kirsty Jones, Religion
Cole Jenkins	To Others Later: Hip-Hop as Civil Rights and the American Mind Faculty Sponsor: Dr. Adam Carrington, History/ Political Science
Jaelyn Palmer	Aphid Attraction by Aroma: The chemical ecology of crapemyrtle aphid (<i>Tinocallis kahawaluokalani</i>) and crapemyrtle (<i>Lagerstroemia</i> spp.) Faculty Sponsor: Dr. Cindy Perkovich, Biology
Chelsea Niedermier	Cyclophosphazenes as drug delivery systems for potential anticancer drugs Faculty Sponsor: Dr. Nicholas Johnson, Chemistry
Dhruval Anandkar Aniket Patel	AgriScience Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science

Oral Session VIII: 3:00 P.M. -4:15 P.M., Trustees Room

Tanner Collins Ryli McConnell	The Cauchy Distribution and Gaussian in Finance Faculty Sponsor: Dr. Yong Ju Lee, Mathematics
Lauren Gulden	"Take The Long Way Home" Faculty Sponsor: Dr. Maura Grady, English
Robert Mouledoux	"Ragtime Should Not Be Played Fast" Tempo and the Music of Scott Joplin Faculty Sponsor: Dr. Elisabeth Roberts, Music
William Westrick	C.S. Lewis, Freud, and the Dialectic of Myth Faculty Sponsor: Dr. Rene Paddags, Political Science
Dhruval Anandkar Aniket Patel Noah Crenshaw Jacob Pielech	Impact of Containerization and Orchestration on Deep Learning Inference Performance Faculty Sponsor: Dr. Abdulbast A. Abushgra, Cybersecurity

Oral Session IX: 3:00 P.M. -4:15 P.M., Faculty Room

Isaiah Wasserbeck	The Out of Season Temple: The Cursing of the Fig Tree in Mark Faculty Sponsor: Dr. David Anthony Basham, Biblical Theology
Kaden Legron	No Longer “the Leper”: Luke’s Person-First Language as a Theology of Restoration Faculty Sponsor: Dr. Kirsty Jones, Religion
Joshua Carpenter	Movin’ Right Along: A Muppetational Collections of Poems and Essays Faculty Sponsor: Dr. Charles Carlise, English
Benjamin Adams	Church Website Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Caleb Kaminski Adam Kitts Quang Tung To Alvaro Boned Aniket Patel Dominic Johnson Damien Johnson Dhruval Anandkar	Vultus Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science

Oral Session X: 4:30 P.M. -5:30 P.M., Trustees Room

Isaiah Wasserbeck	The Phantom of the Sea: A Social and Linguistic Analysis of the Use of ΦΑΝΤΑΣΜΑ in Mark 6:49 Faculty Sponsor: Dr. Kirsty Jones, Religion
Aniket Patel Dhruval Anandkar	CortexLab: Enhancing the Research Lifecycle with Intelligent AI Agents Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Madeline Whitticar	Synthesis and Functionalization of Benzimidazole-Based Compounds for Potential Anti-Cancer Applications Faculty Sponsor: Dr. Nicholas Johnson, Chemistry
Aniket Patel	Performance Analysis of Deep Learning Models on CPU, GPU, and TPU: A Comparative Study of Modern Accelerators Faculty Sponsor: Dr. Abdulbast Abushgra, Cybersecurity

Oral Session XI: 4:30 P.M. -5:30 P.M., Faculty Room

Kaden Legron Sara Bielawski	The Burden of Purity: Wudū’, Ghusl, and the Psychological Struggles of Religious Scrupulosity in Islam Faculty Sponsor: Dr. Kirsty Jones, Religion
Sarah Kohne	Seed to Structure: Rapid Formation of Crambin Nanocrystals for MicroED Faculty Sponsor: Dr. Michael Martynowycz, Mathematics
Teresa Overholser	Global Citizenship and the Task of Pedagogy in Kant Faculty Sponsor: Dr. Joseph Griffith, History and Political Science
Yuegu Wang	Perennial Philosophy and Political Utopia Faculty Sponsor: Dr. Robert Wyllie, History and Political Science

POSTER/EXHIBITION SESSION I: 11:45 A.M.-12:45 P.M. Alumni Room

***Library Research Award Winner Announcement at noon by Patricia Frank, Library Director**

Poster #1	Owen Reynolds Nolan Kern Enoch Oye	SermonQR: Connecting Faith and Technology with the Power of QR Codes Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #2	Aubrianna Lugli	Pressure Induced Injuries in the Intensive Care Setting Faculty Sponsor: Dr. Teresa Moorman, College of Nursing
Poster #3	Adam Harrington	Forest Fire prediction and Mapping Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #5	Georgi Moody	Aromatherapy Use in Oncology Faculty Sponsor: Dr. Teresa Moorman, College of Nursing
Poster #7	Nathan Slater	Pre-Run Carbohydrate Intake and Its Influence on 60-Minute Performance in Division II Distance Runners Faculty Sponsor: Dr. David Vanata, College of Nursing
Poster #9	Hannah Chambers	Does Mode of Instruction Matter? Comparing Memory Retention in Virtual and Traditional Classrooms Faculty Sponsor: Dr. Michaela Quintero, Psychology
Poster #11	Raechel Serafimov Megan Tomasic	Analysis of Nicotine and Toxic Metals in Nicotine and Tobacco Pouches Faculty Sponsor: Dr. Brian Mohney, Chemistry
Poster #12	Josie Sipe Jayden Forrer	Price Elasticity of Demand Faculty Sponsor: Dr. Yong Ju Lee, Mathematics
Poster #13	Aspen Hatfield	Does Birth Order Matter? Exploring Links Between Parenting Styles and Attachment Styles Faculty Sponsor: Dr. Michaela Quintero, Psychology
Poster #15	Devon Brasseur	Opioids/anesthesia effect on the immune/inflammatory response in surgical patients Faculty Sponsor: Dr. Teresa Moorman, College of Nursing
Poster #17	William Hummel	A convergent vs divergent synthesis of calixarene-core PLA-PEG star block copolymers Faculty Sponsor: Dr. Perry Corbin, Chemistry
Poster #19	Layne Stone	Maternal Mortality Faculty Sponsor: Dr. Teresa Moorman, College of Nursing
Poster #21	Rachel Stanckek	Chemical Defense and Nutritional Traits of Legume Roots: A Phytochemical Analysis Faculty Sponsor: Dr. Cindy Perkovich, Biology
Poster #23	Ramey Adkins	TPP Addition to TEG Trimer as a potential targeting agent for anti-cancer drug delivery system Faculty Sponsor: Dr. Nicholas Johnson, Chemistry
Poster #25	Emily Donofrio Hannah Chambers Aspen Hatfield	Studying the Impact of Student-Instructor Relationships on Academic Anxiety Faculty Sponsor: Dr. Michaela Quintero, Psychology
Poster #27	Isabel Ortiz	Method Development for the Passive Sampling of Herbicide Contaminants in Soil and Sediment Faculty Sponsor: Dr. Andrew Trimble, Biology and Toxicology
Poster #29	Colin Pham	Phosphazene-Based Metal Organic Frameworks Incorporating Coinage Metals for Drug Delivery Applications Faculty Sponsor: Dr. Nicholas Johnson, Chemistry
Poster #31	Kalissa Funk	An Efficient Synthesis of Star Polymers for Micelle Formation Faculty Sponsor: Dr. Perry Corbin, Chemistry
Poster #35	Sydney George	Species-Level Variation in Lead Exposure Among Resident Songbirds Near Pre and Post 1978 Homes

		Faculty Sponsor: Dr. Patricia Saunders, Biology
Poster #37	Courtney Casey	Improving Patient Compliance with Discharge Faculty Sponsor: Dr. Teresa Moorman, College of Nursing
Poster #39	Noah Kaltenbaugh	Engaging Students Through Branding and Social Media: A Case Study of The Ashland Theatre Faculty Sponsor: Dr. Lance Kaltenbaugh, College of Business and Economics
Poster #41	Derrick Amapps Ty Simms	Acidic and Basic Degradation of Polylactide Star Polymers Faculty Sponsor: Dr. Perry Corbin, Chemistry
Poster # 43	Jadelyne Avance Analeise Artino Brenna Heinzerling	Analysis of Sugars and Toxic Metals in Apples and Applesauce Faculty Sponsor: Dr. Brian Mohney, Chemistry
Poster # 45	Benjamin Berglund Lukas Schreck	The Lorenz System and Chaos Theory Faculty Sponsor: Dr. Yong Ju Lee, Mathematics
Poster #47	Zach Harrison	When Outliers Matter? - An AI Framework for Fraud Detection Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #49	Marin Dixon	Histological Analysis of the Zebrafish <i>cebpg</i> Mutant Lens Faculty Sponsor: Dr. Mason Posner, Biology
Poster #51	Emily Donofrio	Examining the Effects of Reading Modality on Comprehension Faculty Sponsor: Dr. Christopher Chartier, Psychology
Poster #53	Jillian Hull Ayden Mason	Host Range Testing <i>Bacillus cereus</i> Bacteriophages Faculty Sponsor: Dr. Paul Hyman, Biology
Poster #55	Max Vesper	Demand Forecast Optimization using AI Models Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #57	Susana Olvera	Global Approaches to Reducing Adolescent E-cigarette Use Faculty Sponsor: Dr. Teresa Moorman, College of Nursing
Poster #59	Nicholas Toole	Statistical Modeling and Analysis of Residential Property Values in Ashland County Faculty Sponsor: Dr. Yong Ju Lee, Mathematics

POSTER/EXHIBITION SESSION II: 1:00 P.M.-2:00 P.M., Alumni Room

Poster #4	Kiera Kaeser	Gene Expression Changes in two Zebrafish α-crystallin Mutants with Eye Lens Defects Faculty Sponsor: Dr. Mason Posner, Biology
Poster #6	Oleksandra Bibik Kylie Arnett	The Use of Virtual Reality in a Replication of Godden and Baddeley (1975) Faculty Sponsor: Dr. Mitchell Metzger, Psychology
Poster #8	Sarah Kohne Sebastian Mathews	Synthesis of Nicotine Analogs Utilizing the Click Reaction: Possible Compounds for Therapeutic and Medicinal Applications Faculty Sponsor: Dr. Robert Bergosh, Chemistry
Poster #10	Hunter Long Andrew Coddling Ian Dearment Logan Roseberry Damien Johnson	Eagle Maps Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science

Poster #14	Joseph Waibel	SmartLift
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	Tyler Brown Benjamin Adams Kaj Salzano Alvaro Boned Gonzalez	Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #16	Heaven Keaser	AI Predictive Basket: Machine Learning Models Forecasting the Shopping Cart Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #18	Luke Bowen Bophalleap Vathanak	Investigating the Influence of PTU Dosage on <i>cyp1a</i>, <i>fkbp5</i>, and <i>plin6</i> Gene Expression in Zebrafish Faculty Sponsor: Dr. Mason Posner, Biology
Poster #20	Prabesh Sunar	AU Marketplace — A Campus Platform for Free Exchange and Market Behavior Analysis Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #22	Benjamin Goff Jesse Caudell Ashton Carney	DnD Quiz /w dice roll Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #24	Joshua Byers Quang Tung To J.S Hanania Juillet Dylan Johnson Dominic Johnson	GetItDone Application Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #26	Reid Opel Kaj Salzano	Infinity in Finance Faculty Sponsor: Dr. Yong Ju Lee, Mathematics
Poster #28	Skye Caudill Austin Sprague Asethe Goble Elijah Beere	Hobby Hub Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #30	Jon Lutz Cooper Young Nate Russell	AutoExcuse Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #32	Istvan Szijarto	Simulated Lunar Operations and Optimization of Tire Treads Faculty Sponsor: Dr. Yong Ju Lee, Mathematics
Poster #33	Leeann Harker	AI-CCA : An Integrated AI model for Credit Card Approval Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #34	Dylan Tutlow Brynn Blickensderfer	Electricity: Mathematical Models and History Faculty Sponsor: Dr. Yong Ju Lee, Mathematics
Poster #36	Nicholas Toole	AI Model for Salary Estimation and Employee Turnover Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #38	Daniel Painter	Employee Performance Preprocessing Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #40	Andrew Coddling Cooper Hornfeck	Thinking Poker Through Game Theory Faculty Sponsor: Dr. Yong Ju Lee, Mathematics
Poster #42	Delaney Frary	Decoding Cultivar Susceptibility: Aphid Performance and Plant Defense Traits in Crape Myrtles Faculty Sponsor: Dr. Cindy Perkovich, Biology
Poster #44	Molly Coleman	Measuring Zebrafish Eye Lens Glutathione, an Important Protectant Against Oxidative Damage Faculty Sponsor: Dr. Mason Posner, Biology
Poster #46	Olivia Ramsdell	Friendship, Mental Health, and the Mediating Role of Social Support Faculty Sponsor: Dr. Jennifer Schulz, College of Education
Poster #48	Anna Ramsier	Synthesis and Isolation of TEGME-Substituted Chlorophosphazene Trimers

	Kalli Spehar	Faculty Sponsor: Dr. Nicholas Johnson, Chemistry
Poster #50	Gabrielle O'Brien	The Impacts of Test Anxiety on Academic Motivation Faculty Sponsor: Dr. Michaela Quintero, Psychology
Poster #52	Collin Grundy Carter Speakman Sydney Huebner	Population Growth Model Faculty Sponsor: Dr. Yong Ju Lee, Mathematics
Poster #54	Grace Henning	Substitution of 9-Bromoanthracene onto a Benzimidazole Faculty Sponsor: Dr. Nicholas Johnson, Chemistry
Poster #56	Richard Legg Drake Goings Camron Criddell Christopher Price Grant Miller	Campus Parking Problem Faculty Sponsor: Dr. Selvanayaki Kolandapalayam Shanmugam, Computer Science
Poster #58	Sarah Kohne	Building a Fourier Microscope from Simple Optics that Allows the User to Manipulate and Edit an Image Using the Fourier Plane. Faculty Sponsor: Dr. Brian Mohny, Chemistry
Poster #59	Hope Miller	Transitional Objects and Mathematical Anxiety Faculty Sponsor: Dr. Christopher Chartier, Psychology
Exhibition #1	Lauren Vavrek Amanda Kolar Juliana Howard Kaysie Salmons	Brand Development Through Graphic Design Faculty Sponsor: Professor Michael Bird, Digital Art and Graphic Design