Arts
Arts

Research & 2 0 2 4

















Wednesday

WESTMINSTER COLLEGE

# **WELCOME TO URAC 2024!**

Westminster College is proud to host the 2024 Undergraduate Research and Arts Celebration! There are hundreds of scholars, scientists, artists, performers, and directors that call Westminster College home and today is the day that we celebrate all of their work. This year's celebration features the work of 300+ students from almost every academic program on campus. The work represents every walk of academic life, from poems written by students in their first semester on campus, to seniors presenting the capstone work that they worked on for countless hours.

The Westminster College mission statement includes eight essential outcomes: to reason logically and evaluate critically; to communicate effectively; to think creatively and appreciate aesthetic expressions; to demonstrate intellectual curiosity; to acquire knowledge of self, society, human cultures, the natural world, and human relationships to God; to apply knowledge to contemporary issues; to demonstrate moral and ethical commitments to neighbor, society, and the natural world; and to demonstrate commitment to lifelong learning and the acquisition of skills for careers and responsible service as world citizens. The student work being presented, performed, and displayed today embodies all of these outcomes and is a testament to the value of a Westminster education.

Creating something is difficult, and today's participants will tell you that for everything you see presented, each graph, poem, film frame, and musical note, is the result of in hours of practice, countless drafts, and multiple attempts to get the experiment just right. Because of this hard work, the 2024 URAC participants are excited to share their work with you. I am proud of these students for this work, and for the courage it takes to share this work with the community.

These artists, performers, and scholars could not have carried out these projects by themselves; behind each project there are Westminster College faculty, staff, administration, and campus offices that helped the students each step of the way. Back home and in dorm rooms there are friends, siblings, and parents who supported these researchers. I want thank everyone for providing this support and giving our students the opportunity to shine today.

Just as the work of our students is not an individual effort, URAC would not be possible without the effort of a group of people from across campus that includes student workers, Academic Administrative Assistants, and the Undergraduate Research Advisory Council, a group of dedicated faculty involved in every aspect of planning, coordinating, and staging URAC. Today's celebration would not happen without their efforts and I am deeply grateful for their help.

I hope you enjoy today's events! Thank you for attending the Undergraduate Research and Arts Celebration.

Patrick E. Lackey

Director, Drinko Center for Undergraduate Research





**#WCURAC** 

9 AM-4 PM

**SCRAWL 2024 RELEASE TABLE** Cultural Center

WHERE THEY ARE FROM: A POETRY COLLECTION BY THE CLASS OF 2027 Quad

9-9:15 AM

9-10 AM

MARKET STREET BRASS QUINTET McKelvev TUB

**POSTER SESSION A** Witherspoon Rooms

FOCUS GROUP: TITAN RADIO McKelvey 275

9-11 AM

**VIDEO SCREENINGS** Mueller Theater

9:45-10 AM

**CHAMBER SINGERS** McKelvev TUB

10-10:45 AM

**CONCURRENT RESEARCH ROUNDTABLES** 

Patterson 1st/2nd Floor

10-11 AM

**HOW TO GET STARTED IN RESEARCH** Berlin Lounge

**SCRAWL RELEASE PARTY** Cultural Center

10-11:20 AM 11 AM-12 PM **CONCURRENT ORAL SPEAKERS** Patterson 1st/2nd Floor

**POSTER SESSION B** Witherspoon Rooms FOCUS GROUP: TITAN RADIO McKelvev 275

**BRIDGING BORDERS: JOURNEY TO PUERO RICO** 

Cultural Center

**PARLIAMENTARY DEBATE** Berlin Lounge

**ART DISPLAY** McKelvey 3rd Floor Atrium

12-1 PM

FEATURED PODIUM PRESENTATION SPEAKERS

Mueller Theater and Facebook Live

**ART GALLERY TALKS** Foster Art Gallery

**EXPERIENCE ALASKA** Cultural Center

1-1:15 PM

**WICKED WINDS OF THE WEST WOODWIND QUINTET** 

McKelvey TUB

1-2 PM

**POSTER SESSION C** Witherspoon Rooms

**POETRY SLAM** Berlin Lounge

FOCUS GROUP: TITAN RADIO McKelvey 275

1:15-2 PM

**CONCURRENT RESEARCH ROUNDTABLES**Patterson 1st/2nd Floor

1:30-2:50 PM

**CONCURRENT ORAL SPEAKERS** Patterson 1st/2nd Floor

1:45-2 PM

TRUMPET ENSEMBLE McKelvey TUB

2:10-2:55 PM

**CONCURRENT RESEARCH ROUNDTABLES** 

Patterson 1st/2nd Floor

2:15-2:45 PM

RHYTHMIC RENAISSANCE: PERCUSSION ENSEMBLE

Orr Auditorium

2:30-3:30 PM

**PUBLIC SPEECHES** Berlin Lounge

3-4 PM

FEATURED PODIUM PRESENTATION SPEAKERS Mueller Theater and Facebook Live

**POSTER SESSION D** Witherspoon Rooms

**FOCUS GROUP: DOCUMENTARY PREVIEW McKelvey 275** 

3:30-4 PM

**READER'S THEATER: TEACHING PEACE** Berlin Lounge







#### **URAC-2024** RESEARCH EXPERIENCE PANEL

#### **HOW TO GET STARTED IN RESEARCH**

#### **BERLIN LOUNGE 10:00-11:00 AM**

COME HEAR STUDENTS FROM A VARIETY OF MAJORS AND CLASS STANDING AS THEY TALK ABOUT HOW THEY GOT STARTED IN RESEARCH AND THEIR EXPERIENCES IN A VARIETY OF RESEARCH PROJECTS!

ATTENDEES WILL HAVE THE OPPORTUNITY TO ASK THE PANELISTS QUESTIONS.

FIRST-YEARS AND SOPHOMORES IN ATTENDANCE ARE ELIGBLE FOR A DOOR PRIZE!

#### **PANELISTS:**

Sophia Galietta	Emma Sukal	Kevin Walker
Senior	Junior	Sophomore
Psychology and Art	Individual Interdisciplinary	Biochemistry and Moleculary Biology
Emily Huff Senior Biochemistry	Alaina Kutsch Senior Neuroscience and Psychology	Harmony Wilson Junior Biology



UNDERGRADUATE RESEARCH AND ARTS CELEBRATION

# CALLING ALL STUDENTS AND ATTENDEES!!

**WE WANT TO HEAR FROM YOU!!** 





COMPLETE THE URAC EXPERIENCE SURVEY BY MONDAY, MAY 6TH TO BE ENTERED FOR A CHANCE TO WIN A \$25 SHEETZ GIFT CARD!

DO YOU WANT TO WIN A \$25 SHEETZ GIFT CARD? URAC-2024

POSTER PRESENTATIONS

Witherspoon Rooms

## **URAC-2024** POSTER PRESENTATIONS

POSTER NUMBER	TITLE	RESEARCHER(S)	FACULTY SPONSOR
SESSI	<b>ON A</b> — 9-10 AM		
A1	Not Just a Business: The Westminster Bee Company	Talia Kosonovich, Silvio Corso, Ashlee Douglass, Abigail Cannon, Kendall Joing, Dalton Koehler, Amelia Mason, Zoey Metz, Talia Morgenstern, Shea O'Donnell, Rachel Summers	Helen Boylan
A2	Multiple Sclerosis and the Immune System	Isabella Barnabei, Sarah Macmurdo	John Robertson
А3	A Lifelong Legacy	Haley Bell	David Swerdlow
A4	The Impact of Cushing Syndrome on the Immune System	Samantha Burnett	John Robertson
A5	Using siHybrids targeting the fnbA mRNA in Staphylococcus aureus to suppress biofilm formation	Mackenzie Dunn	Joshua Corrette-Bennett
A6	Nicotine's Effect On Immune System	Jordan Fore, Nicholas Pasquarello	John Robertson
A7	Exposure to parabens results in developmental abnormalities in zebrafish	Caroline Fox	Marosh Furimsky
A8	Drink like a Fish: The Impact of Ethanol on Social Anxiety in Zebrafish	Lily Fox	Deanne Buffalari
A9	The Effect of Aflatoxin B1 on Neural Development and Behavior of Zebrafish	Chloe Hankey	Marosh Furimsky
A10	Examination of SLBP Binding to Histone mRNA Degradation Intermediates	Olivia Herman	Patrick Lackey
A11	Investigation of the Autoimmune Disease Guillain-Barré Syndrome	Joseph Hill, Nydia Johnson	John Robertson
A12	The Effects of Nature Therapy on Stress and Attention Span	Hallie Hughes	Helen Boylan
A13	From Clowns to Crowds: History of the Culture Change of Competitive Eating	Anthony Kamenski	Patricia Clark

POSTER NUMBER	TITLE	RESEARCHER(S)	FACULTY SPONSOR
A14	The Comorbidity of Caffeine and Nicotine on Memory in Sprague-Dawley rats.	Victoria Kattler	Deanne Buffalari
A15	Invasive Species: a Dual Threat to the Environment and Economy	Camyrn Kollar, Ahreon Wharton, Tannah Hendrickson, Chloe Courinos	Keith Bittel
A16	The Hidden Arms Race: Women in FBS Football Recruiting and Operations	Riley Lewis	Robert Badowski
A17	The Relationship Between Anxiety/Depression and Current Nicotine Use Mediated by Emotion Dysregulation and Nicotine Withdrawal Symptoms	Brandegee Livingstone	Jessica Rhodes
A18	American Model United Nations Conference	McKenzie Means, Ashley Tarter, Caio Souza, Christina Loewe, Colin O'Malley, Conner Roberts, Dalton Hamm, Erin Callahan- Cardin, Ethan Nejad, Gabriel Diulus, Gabriela Garza, Jonathan Bates, Joshua Furman, Kelsey Humes, Kent Dunn, Lily Hefner, Marcus Tokar, Mateus Souza, Nicholas Smith, Nicolina Risavi, Portland Canovali, Peter Canovali, Ryan Crissman, Sarah Anil Cherian, Timurbek Kudratullaev, Victoria Valcarcel Matos, Victoria Harden, Wesley Yeager	Michael Aleprete
A19	The Mechanisms of Rheumatoid Arthritis	Nina Rascona, Jacob Steinbeck	John Robertson
A20	Radio Recombination Lines and Star Formation in the Orion Nebula	Hayley Simcic	Matteo Luisi
A21	Inhibition of Staphylococcus aureus biofilm formation using vinegar	Rachel Smith	Joshua Corrette-Bennett
A22	Malaria: A Review of Infection and Immune System Response	Savannah Weller	John Robertson









POSTER NUMBER	TITLE	RESEARCHER(S)	FACULTY SPONSOR
SESSI	ON B — 11 AM-12 PM		
B1	Not Just a Business: The Westminster Bee Company	Talia Kosonovich, Silvio Corso, Ashlee Douglass, Abigail Cannon, Kendall Joing, Dalton Koehler, Amelia Mason, Zoey Metz, Talia Morgenstern, Shea O'Donnell, Rachel Summers	Helen Boylan
B2	Impact of Attending PMEA State Convention	Shelby Pocono, Katie Lyons, Shannon Witkouski, Alexandra Webster	Tad Greig
В3	Immune Response to Stimulant Drugs	Jonathan Bates, Noah Gray	John Robertson
B4	The effect of $\beta$ -alanine on the rate of axolotl limb regeneration and digit formation and the expression of tgf-b1.	Madison Conley, Madelyn Scarmack	Joshua Corrette-Bennett
B5	The Effects of Body Length, Mortality and Hatch Rate with Zebrafish, Danio rerio, that are induced with various concentrations of Ibuprofen	Dino D'Alesio	Marosh Furimsky
В6	The East Palestine Train Derailment: The Environmental and Economic Effect of Train Derailments Nationwide	Lenina Ebert, Shelby Rambo, Madeline Thomas, Grace Schill	Keith Bittel
B7	Reduction of Catheter Associated Urinary Tract Infection's through Proper Documentation	Jessica Fatigati	Joni Darby
B8	Exposure to 5 kHz and 10 kHz Ultrasound Disrupts Nuclear Transport of HeLa Cells?	Jordan Fore	Karen Resendes
B9	An Investigation of Celiac Disease	Caitlyn Goodrich, Victoria Peltonen	John Robertson
B10	Introducing Visual Aides to Help Prevent Post-Op Bariatric Surgery Dehydration and ER Admissions	Melissa Graham	Joni Darby
B11	Delivery of Mitochondria- Containing Extracellular Vesicles to the Blood-Brain Barrier for the Treatment of Ischemic Stroke	Ella Hildebrand	Deanne Buffalari
B12	The Impact of Cellular Backpack Technology: a Treatment for Traumatic Brain Injury	Camryn Kollar	John Robertson

POSTER NUMBER	TITLE	RESEARCHER(S)	FACULTY SPONSOR
B13	The Relationship Between ADHD and Concussion Severity/ Likelihood Moderated by Sluggish Cognitive Tempo	Riley Lenard-Haley	Jessica Rhodes
B14	Examining polystyrene effects on germination and root development of Hordeum vulgare	Kathryn Lynn	Ann Throckmorton
B15	Crohn's Disease: Autoimmune Inflammatory Bowel Disease	Alayna Moore	John Robertson
B16	The Economic Impact of Ecosystem Restoration	Shea O'Donnell, Elysia Morris, Nicholas Vitale, Phil Keller	Keith Bittel
B17	Cocaine and Nicotine Exposure Effects Novelty Exploration in Male and Female Zebrafish	Nina Rascona	Deanne Buffalari
B18	Conformation Changes at the Cysteine Residues in CopY Protein using MD Simulation	Donald Shimko	Jessica Sarver
B19	Clinical Alarms in the Critical Care Unit Leading to Alarm Fatigue	Alyssa Stock	Joni Darby
B20	Overview of Type 1 Diabetes	Danielle Teasdale	John Robertson
B21	Pathology and physiology of pernicious anemia	Claire Tobin, Lane Voytik	John Robertson
B22	The Sleep of Reason: Exploring the Disillusionment of the American Dream in Literature and Film	Madyson Treharne	Kristianne Kalata
B23	Poverty's Grip on Mental Health and Social Issues in Lawrence County, Pennsylvania and the Implications for Public Policy	Reaghan Wilkerson	Sherri Pataki











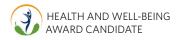


POSTER NUMBER	TITLE	RESEARCHER(S)	FACULTY SPONSOR
SESSI	ON C — 1 PM-2 PM		
C1	Not Just a Business: The Westminster Bee Company	Talia Kosonovich, Silvio Corso, Ashlee Douglass, Abigail Cannon, Kendall Joing, Dalton Koehler, Amelia Mason, Zoey Metz, Talia Morgenstern, Shea O'Donnell, Rachel Summers	Helen Boylan
C2	Variation in offspring sex ratio in American kestrels (Falco sparverius)	Aislinn Andrews	Kerri Duerr
C3	New Wilmington Block Party	Thomas Bablack, Natalie Franke	Robert Badowski
C4	DIY Raman Spectrophotometer	Zachary Burghgraef, Charles Moller, Ellian Ascencio, Lucas Whitcomb	Erin Wilson
C5	Emotion Regulation as a Moderator in the Relationship Between Sluggish Cognitive Tempo and Nicotine Withdrawal	Mayson Everette	Jessica Rhodes
C6	An Overview of the Disease Lupus	Caroline Fox, Madelyn Scarmack	John Roberston
C7	New hormone found that causes morning sickness during pregnancy	Lily Fox, Emilee Larrick	John Robertson
C8	Assessing gill pigmentation in juvenile Acipenseriformes	Maximillian Furimsky	John Robertson
C9	Enhancing Workplace Productivity and Motivation: The Role of Positive Organizational Behavior, Relationships, and Healthy Lifestyles	Kendra Granchi	Loreen Huffman
C10	Immunological dilemma: exploring Wiskott-Aldrich Syndrome's impact on immune function	Lauren Gross, Natalie Calvert	John Robertson
C11	Role of 3'hExo in mRNA Histone Degradation	Gabriella Hunter	Patrick Lackey
C12	An Examination of the Role of Sluggish Cognitive Tempo in the Relationship between ADHD Symptoms and Emotional Impulsivity and Attentional Control	Bailee Kasbee	Joni Darby

POSTER NUMBER	TITLE	RESEARCHER(S)	FACULTY SPONSOR
C13	An Examination of the Role of Sluggish Cognitive Tempo in the Relationship between ADHD Symptoms and Emotional Impulsivity and Attentional Control	Alaina Kutsch	Jessica Rhodes
C14	Barriers to Using Westminster College's Wellness Center	Natalie Murrio	Joni Darby
C15	Insight into the Immunological Efficacy of Stem Cell Therapy for Motor Neuron Regeneration following Spinal Cord Injury	Anita Panatch	John Robertson
C16	Total protein compared between Vaccinium sect. Cyanococcus exposed to pesticides versus those without	Katie Lynn	Ann Throckmorton
C17	Shortcomings of American Education for Critical Thinking	Zion Posey	Patricia Clark
C18	Severe Combined Immunodeficiency	Mykenzie Riggle	John Robertson
C19	The effect of siHybrids on biofilm formation in Staphylococcus aureus	Lyddia Rougeux	Joshua Corrette-Bennett
C20	Ankylosing Spondylitis: A Disease and Treatment Review	Zoe Rowland	John Robertson
C21	Efficacy of Alopecia Treatments	Aubrey Suttelle, Rachel Smith	John Robertson
C22	The Orion Nebula	Justin Ranft	Mateo Luisi
C23	Interplay Between Personality Traits, Social Desirability, and the Human Need to Belong	Jenifer Vaughan	Loreen Huffman
SESSI	ON D — 3-4 PM		
D1	Not Just a Business: The Westminster Bee Company	Talia Kosonovich, Silvio Corso, Ashlee Douglass, Abigail Cannon, Kendall Joing, Dalton Koehler, Amelia Mason, Zoey Metz, Talia Morgenstern, Shea O'Donnell, Rachel Summers	Helen Boylan
D2	United States Black Maternal Healthcare Disparities	Alyssa Brest	Loreen Huffman 💸 🕡







POSTER NUMBER	TITLE	RESEARCHER(S)	FACULTY SPONSOR
D3	Reanna Daniels	Influence of Imagery Rescripting and Body Image on Attitudes To- wards Carbohydrates	Loreen Huffman
D4	Charity and Philanthropy in the Jehovah's Witness	Victoria Harden	Michael Aleprete
D5	The effect of bisphenol F on development and gene expression in zebrafish	Emily Huff	Patrick Lackey
D6	Temperature Regulation, Swarm Prediction, and Honey Production at the Westminster Apiary	Avery Keenan	Patrick Krantz
D7	Effect of Propylparaben on the Growth and Gonadal Development of Fathead Minnows (Pimephales promelas)	Taylor King	John Robertson
D8	Investigating the Impact of Alcohol-Stress Interactions on Impulsivity in Rats.	Alaina Kutsch	Deanne Buffalari
D9	Growth and total protein concentration of Phaseolus vulgaris are not negatively affected by perfluorooctanoic acid	Katharyn Lynn	Ann Throckmorton
D10	Bortezomib disrupts nuclear transport by increasing nuclear import and decreasing export	Nicholas Pasquarello	Karen Resendes
D11	An investigation of incubation behavior in American Kestrels (Falco sparverius)	Victoria Peltonen	Kerri Duerr
D12	Deception Tactics: The Successful Use of Maskirovka for the Soviet Union during WWII	Vito Pilosi	Patricia Clark
D13	How Implementing a Discharge Checklist Affects Postoperative Orthopedic Patients Length of Stay	Kerstyn Pomfret	Joni Darby
D14	Increasing Health Awareness Among Westminster Students Through the Use of Instagram and Media	Samantha Stinner	Joni Darby

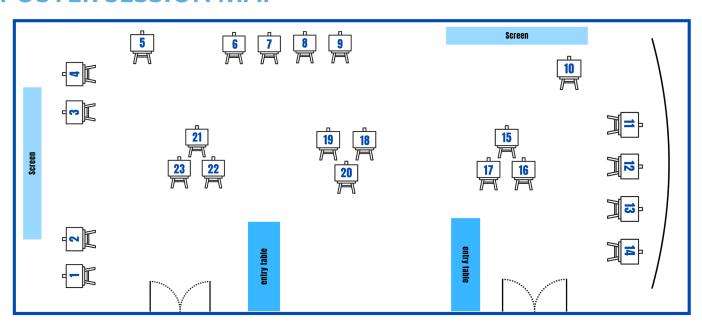






POSTER	7171	DESEADOLIED(C)	FACILITY CRONICOR
NUMBER	TITLE	RESEARCHER(S)	FACULTY SPONSOR
D15	Sertraline and Caffeine interactions and their effects on anxiety levels in Zebrafish	Macy Stoddard	Deanne Buffalari
D16	The Impact of Kraft Lignin Nanoparticle Surface Coatings on Pseudomonas aeruginosa Biofilm Growth	lan Sullivan	Erin Wilson
D17	Secondary Analysis of Interventions to Decrease Incidence of Pressure Injuries	Lauren Tanis	Joni Darby
D18	Implications of Hypothyroidism on Reproductive Development in Xenopus laevis	Amy Tutt	John Robertson
D19	Myasthenia Gravis: Treatment	Raina Vilsack, Christian Pasquarello	John Robertson
D20	Blood Culture Contamination in the Emergency Department	Cecilia Wallace Wozniak	Joni Darby
D21	Suppressing biofilm production in Staphylococcus aureus using siHybrids targeting the codY gene	Jocelyn Whalen	Joshua Corrette-Bennett
D22	Does Stimulant History Affect the Anxiety-Like Response to Nicotine in Male Rats	Taylor Harman	Deanne Buffalari
D23	Data Analysis and Machine Learning on Housing Prices	Lucas Lander	Heather Muchowski

#### **POSTER SESSION MAP**



#### INDEX OF POSTER PRESENTERS

Alaina Kutsch Lucas Lander

Emilee Larrick

Kathryn Lynn

Katie Lyons

Riley Lenard-Haley

Riley Lewis A16 Brandegee Livingstone A17

D23

С7

B13

В2

B14, C16, D9

INDEX OF P	OSTER P	RESENTERS			
PRESENTER F	POSTER #	PRESENTER	POSTER #	PRESENTER	POSTER #
Aislinn Andrews Ellian Ascencio Thomas Bablak Isabella Barnabei Jonathan Bates Haley Bell Alyssa Brest Zachary Burghgraef Samantha Burnett Natalie Calvert Abigail Cannon Madison Conley Silvio Corso Chloe Courinos Dino D'Alesio Reanna Daniels Ashlee Douglass Mackenzie Dunn Lenina Ebert Mayson Everette Jessica Fatigati Jordan Fore Caroline Fox Lily Fox Natalie Franke Maximillian Furimsky Caitlyn Goodrich Melissa Graham Kendra Granchi Noah Gray Lauren Gross Chloe Hankey Victoria Harden Taylor Harman Tannah Hendrickson Olivia Herman Ella Hildebrand Joseph Hill Emily Huff Hallie Hughes Gabriella Hunter Kendall Joing Anthony Kamenski Bailey Kasbee Victoria Kattler Avery Keenan Phil Keller	C2 C4 C3 A2 B3 A3 D2 C4 A4 C10 A1, B1, C1, D1 B4 A1, B1, C1, D1 A15 B5 D3 A1, B1, C1, D1 A5 B6 C5 B7 A6, B8 A7, C6 A8, C7 C3 C8 B9 B10 C9 B3 C10 A9 D4 D22 A15 A10 B11 A11 D5 A12 C11 A1, B1, C1, D1 A13 C12 A14 D6 B16	Sara Macmurdo Amelia Mason McKenzie Means Zoey Metz Model UN Charles Moller Alayna Moore Talia Morgenstern Elysia Morris Natalie Murrio Shea O'Donnell Anita Panatch Christian Pasquarello Victoria Peltonen Vito Pilosi Shelby Pocono Kerstyn Pomfret Zion Posey Shelby Rambo Justin Ranft Nina Rascona Mykenzie Riggle Lyddia Rougeux Zoe Rowland Madelyn Scarmack Grace Schill Donald Shimko Haley Simcic Rachel Smith Jacob Steinbeck Samantha Stinner Alyssa Stock Macy Stoddard Ian Sullivan Rachel Summers Aubrey Suttelle Lauren Tanis Danielle Teasdale	A2 A1, B1, C1, D1 A18 A1, B1, C1, D1 A18 C4 B15 A1, B1, C1, D1 B16 C14 A1, B1, B16, C1, D1 C15 D19 A6, D10 B9, D11 D12 B2 D13 C17 B6 C22 A19, B17 C18 C19 C20 B4, C6 B6 B18 A20 A21, C21 A19 D14 B19 D15 D16 A1, B1, C1, D1 C21 D17 B20	Madeline Thomas Claire Tobin Madyson Treharne Amy Tutt Jenifer Vaughan Raina Vilsack Nicholas Vitale Lane Voytik Cecilia Wallace Woznia Alexandra Webster Savannah Weller Westmin. Bee Compan Jocelyn Whalen Ahreon Wharton Lucas Whitcomb Reaghan Wilkerson Shannon Witkouski	B2 A22
Taylor King Dalton Koehler	D7 A1, B1, C1, D1		Commer	cial Free	
Camryn Kollar Talia Kosonovich Alaina Kutsch	A15, B12 A1, B1, C1, D1 C13, D8				



**URAC-2024** 

ORAL PRESENTATIONS & RESEARCH ROUNDTABLES

**Mueller Theater and Patterson Hall** 

PATTERSON FIRST AND SECOND FLOORS

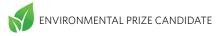
#### **CONCURRENT MORNING SESSIONS** — 10:00-11:20 AM

	10:00 AM	10:20 AM	10:40 AM	11:00 AM
PATTERSON 105	Debt Do Us Part: Mortgages vs. Renting Noah Sofran	Classes of graphs: O(n,a) Kaylee Horn	Reduction Of PCID2 In Breast Cancer Cells Decreases Mesenchymal Markers And Upregulates Epithelial Markers	
PATTERSON 107	<b>Directed Graph Burning</b> Zachary LaFrankie	iNo nos maten!: A solution oriented approach to feminicide in Mexico through social, legal, and feminist perspectives  Hannah Piccirilli	Beyond the Warrior Culture Memory: An Examination of the Practical Side of the Samurai of the Ashikaga Shogunate  Hayne Webster	The Liberating Effect of Education  Zion Posey
PATTERSON 110	Examining How History and the Psychology of Social Media Impact Financial Decisions Made in the Wedding & Events Industry  Abigail Cannon	Recognizing Cop- Win Graphs with Iterative Graph Coloring Lux Rezk	Canvas Creations: A Pattern-Making Paint Program Leyla Alibrahimi	The Effects of Caffeine on Emotional Memory  Samantha Reed

#### PATTERSON FIRST AND SECOND FLOORS

#### **CONCURRENT MORNING SESSIONS** — 10:00-11:20 AM

	10:00 AM	10:20 AM	10:40 AM	11:00 AM
PATTERSON 205	Exploring Total Burning in Graphs Dayne Fasick	Investigating the role of PCI domain containing 2 (PCID2) in breast cancer cell proliferation  Jocelyn Whalen	Ecological Land Use of the Rainforest  Talia Kosonovich	Retrospective Analysis of Early 20th Century Immigrant Health, using Body Mass Index and Death Certificates, in Lawrence County, PA.  Joseph Armstrong
PATTERSON 207	Exploring the "Warrior Gene" in United States Murder Trials  Lily Hefner	The Green M&M: Money and Marriage  Kent Dunn	From Ramen to Résumés: The Grad School Journey  Colin O'Malley	Root Finding with Genetic Algorithms Asia Morgenstern

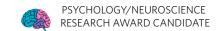












PATTERSON FIRST AND SECOND FLOORS

#### **CONCURRENT AFTERNOON SESSIONS** — 1:30-2:50 PM

	1:30 PM	1:50 PM	2:10 PM	2:30 PM
PATTERSON 105	Modeling and Quantifying the Behavior of Bacterial Morphology with Diffusion-Limited Aggregation Zachary LaFrankie	Site-Direceted Mutagenesis of Alpha-Synuclein Kevin Walker	Roth IRA - Less Taxing and More Relaxing Mark Armile	Frankenstein: Upturning Heteronormative Binaries  Charlie Barefield
PATTERSON 107		The Religion of American Nationalism  Victoria Harden	Does Mom's Basement Beat Rent? A Post- College Decisions Presentation  Malia Duffy	Changing the World, One Community at a Time  Brittany Marburger
PATTERSON 110	Spilling the Tea: How Leaf Variety and Fermentation Affect Antioxidant Content  Grace Ryser	Westminster Analyst Program - Corporate Real Estate  Kent Dunn	Humane Horrors: A Dissection & Analysis of Beau Is Afraid & Portrayals of Trauma within the Horror Genre  Annika McCabe	







PATTERSON FIRST AND SECOND FLOORS

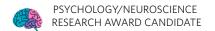
#### **CONCURRENT AFTERNOON SESSIONS** — 1:30-2:50 PM

	1:30 PM	1:50 PM	2:10 PM	2:30 PM
PATTERSON 205	A Life Line: Activism in YELL and Higher Education  Olivia Bonacci	The Benefits of "UniChat"  Patrick Ekeu	Is the late positive potential (LPP) a marker of emotional memory encoding and consolidation?  Hannah Piccirilli	Examining the binding of 3'hExo to the histone mRNA  Natalie Rose
PATTERSON 207	Effects of Rape Myth Acceptance, Sexual Assault Experience, and Gender on Risk Perception and Constructive Memory  Luvada Mayle	Continuous wave electron paramagnetic resonance structural analysis of alpha- synuclein in its disordered and membrane-bound forms  Emma Parker	Investing in Competitive ESports Players Lux Rezk	The Effects of Lead (Pb2+) on the Morphology of the Skeletal System and Swim Bladder of Embryonic Zebrafish (Danio rerio)  Jacob Steinbeck
PATTERSON 210	<b>Lights Out Variations</b> Mariah Vincent	Behind the Wheel: Navigating the Buy or Lease Decision Alison Weir	Health Problems and Demographical Insights: An Analysis of Patient Profiles, Health Issues, and Treatments in the Dominican Republic Savannah Weller, Katelynn McCurdy, Abigail Guiste, Melanie Porras	









#### **URAC-2024** FEATURED PODIUM PRESENTATIONS

MUELLER THEATER AND FACEBOOK LIVE

#### MORNING SESSION — 12:00-1:00 PM

	A GAME THEORETIC APPROACH TO RUSSIAN-UKRAINIAN RELATIONS
12:00-12:25 PM	Ashley Tarter
12:30-12:55 PM	BAD GIRL: AN EXAMINATION OF DEVIANT FEMALE CHARACTERS IN CONTEMPORARY NOVELS
12:30-12:33 PM	Grace Phillips

#### **AFTERNOON SESSION** — 3:00-4:00 PM

3:00-3:25 PM	"AWESOME MIX, VOL. 2 CASSETTE": A STUDY ON SOUNDTRACK DISSONANCE  Madyson Treharne
3:30-3:55 PM	THE EFFECT OF NATURE THERAPY ON MOOD AND COGNITION AMONG INDIVIDUALS REPORTING ADHD-LIKE SYMPTOMS  Sophia Galietta











#### **URAC-2024** RESEARCH ROUNDTABLES

PATTERSON FIRST AND SECOND FLOORS

#### **CONCURRENT MORNING ROUNDTABLES** — 10:00-10:45 AM

PATTERSON 108	BOOSTING BRAINPOWER: THE MARVELS OF ACTIVE LEARNING IN THE PRE-K-12 CLASSROOM Moderated by School of Education Faculty KATHERINE FITZPATRICK, ANTHONY KAMENSKI, COLLEEN DREYER, ALAINA CANTAKIS	
PATTERSON 208	PLATH & POETRY: THE INTERSECTION OF WOMANHOOD & MENTAL ILLNESS  Faculty Moderator: Kristianna Kalata  ANNIKA MCCABE, JOEHY BRINKLEY, MADY GOODRICH	
PATTERSON 210	ECHOING EXPOSURE IN ELA: CONSISTENT REPETITION OF WRITING GROWTH IN THE ELA  CLASSROOM  Moderated by School of Education Faculty  ANTONIO ULIZZI, ALEXA RANSOM, ELIZABETH MALCZAK	

#### **CONCURRENT AFTERNOON ROUNDTABLES** — 1:15-2:00 PM

PATTERSON 108	COMMUNITY INVOLVEMENT AND STUDENT LEARNING SERVICES  Faculty Moderator: Jenna Copper  JULIE MCKENZIE, BROOKE POWELL, ABIGAIL SLOSS	
PATTERSON 208	THE ROUTE TO SELF-DISCOVERY IN THE COLOR PURPLE Faculty Moderator: Kristianne Kalata LANE VOYTIK, HALEY BELL, KAMRYN TAYLOR, HAMILTON GALBRAITH, MAKAYLA FRANCIS	

#### **CONCURRENT AFTERNOON ROUNDTABLES** — 2:10-2:55 PM

PATTERSON 108	SKILLED AND ENHANCED READING COMPREHENSION  Faculty Moderator: Jenna Copper  JACKSON ALEXANDER, SIERRA CEREZO, CAITLYN CONDOLEON, AND MAKENZIE  CRAWFORD	
PATTERSON 208	ONE FLEW OVER THE CUCKOO'S NEST: THE DOWNSIZING OF CHIEF BROMDEN'S  CHARACTER DUE TO RACIAL TENSIONS  Faculty Moderator: Kristianne Kalata  NATHAN MAJURE, AVA KARPA, FALYN SNYDER	





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**URAC-2024** ART, MUSIC, & CREATIVE WORKS

McKelvey, Patterson, & Orr

# URAC-2024 ART, MUSIC & CREATIVE WORKS

MCKELVEY, PATTERSON HALL, & THE QUAD

#### **ART**

FOSTER ART GALLERY	12:00 PM-12:30 PM	12:30 PM-1:00 PM
GALLERY TALKS	<b>ARGININE, ALANINE, THREONINE</b> Grace Ryser	<b>NATURE VIA NURTURE</b> Sophia Galietta
MCKELVEY 3rd FLOOR	On Display: 9:00 AM-4:00 PM Artists Present: 11:00 AM-12:00 PM	
ATRIUM	Marlowe Frelin, Macaria Benjamin, Colby Bird, Chyna Butl	S NOT TRASH  er, Damarion Collins, Braeden D'Angelo, Nathan Demchak, enny, Katelyn Kerr, Liam Kosior, Leo Schmidt Hansen

MAIN QUAD	9:00 AM - 4:00 PM	
	WHERE THEY ARE FROM: A POETRY COLLECTION BY THE CLASS OF 2027	
	9:00 AM-4:00 PM	
CULTURAL CENTER	SCRAWL SPRING 2024 RELEASE TABLE	
	10:00 AM-11:00 AM	
	SCRAWL RELEASE PARTY	
BERLIN LOUNGE	1:00-2:00 PM	
	SIGMA TAU DELTA POETRY SLAM	

# URAC-2024 ART, MUSIC & CREATIVE WORKS

#### MCKELVEY AND ORR AUDITORIUM

#### **MUSIC**

	9:00-9:15 AM
MCKELVEY TUB	MARKET STREET BRASS QUINTET Isabella Dienes, Karissa Petruso, Jeremy Beckinger, Benjamin Burke, Timothy Mulcahy
	9:45-10:00 AM
MCKELVEY TUB	CHAMBER SINGERS PERFORMANCE Alexandra Webster, Amber Cepec, Elena Macdonald, Amelia Klinar, Liam Chute, Hunter Peterson
	1:00-1:15 PM
MCKELVEY TUB	WICKED WINDS OF THE WEST WOODWIND QUINTET Shelby Pocono, Shawn Redmond, Jeremy Beckinger, Jack Romocean, Tiffany Bratton
	1:45-2:00 PM
MCKELVEY TUB	<b>TRUMPET ENSEMBLE</b> Dalton Stoops, Madison Mueller-Howell, Cameron Stahl, Isabella Dienes, Hunter Hoag, Michael Everhart, Karissa Petruso
	2:15-2:45 PM
ORR AUDITORIUM	RHYTHMIC RENAISSANCE: THE INFLUENCE OF THE PERCUSSIVE ARTS SOCIETY'S INTERNATIONAL CONVENTION Shannon Witkouski, Ryan Bramson, Lauren McTiernan, Ryan Shaw, Tyler Wittmann









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VIDEO SCREENINGS, FOCUS GROUPS, & TRAVEL EXPERIENCES

**McKelvey** 

#### **URAC-2024** VIDEO SCREENINGS

MUELLER THEATER

#### VIDEO SCREENINGS — 9:00-11:00 AM

9:00 AM	THE MAKING OF "ANOTHER WORLD"  Bethany Edwards	
9:10 AM	LOOSE GRIP  Joseph Matese, Alex Marinski, Rachel Summers, Alex DiVitto, Anna McGinnis, Noah Wolford, Emma Hull, Silvio Corso, Daniel Thimons, Morgan Reidy, Bryce Carroll	
9:20 AM	<b>04:29.0</b> Benjamin Pugh, Logan Byers, Chevy Dawson, Ethan Orr, Adrienne Offutt, Grace Matson, Austin Downs, Jorden Tate, Hannah Plowman	
9:30 AM	THE GREEN TEAM: EXPLORING WESTMINSTER'S GREEN SCENE Reid Sanderson, Avery Keenan, Hallie Hughes	
9:40 AM	SOMEDAY MY PRINCE WILL COME - FRANK CHURCHILL & LARRY MOREY (COVER)  Jacob Weber	
9:50 AM	ARE THE AMISH FUNNY?  Max Smith	
10:30 AM	WINGING IT WITH THE BIRDTOK CLUSTER: SHOWCASING MEMES CREATED BY BIRDERS USING TIKTOK  Sarah Marinkovich, Gavin Batdorff, Kolton Banfi, Angelena Ukeagu, Iresha Norris, Madillynn Kerr, Cody Vetter, Dwight Parker, Walter Phillips, Derek Beach, Luke Lander, Lucas Whitcomb, Connor Schmidt, Ethan Burford, Kevin Ivany, Chase Thomas	

#### URAC-2024 FOCUS GROUPS & GLOBAL EXPERIENCES

**MCKELVEY** 

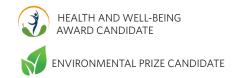
#### TITAN RADIO FOCUS GROUPS — 9:00 AM, 11:00 AM, & 3:00 PM

	9:00-10:00 AM	11:00 AM-12:00 PM	3:00-4:00 PM
MCC	Mason Peck, Jack Mickle,	Joseph Matese, Geoffrey	Hannah Plowman, Brittany
275	Cody Vetter	Worsey, Reid Sanderson	Marburger, Emily Reed

#### GLOBAL EXPERIENCES — 11:00 AM-1:00 PM

	11:00 AM-12:00 PM		
CHITHRA	BRIDGING BORDERS, RESTORING ROOTS: A JOURNEY TO PUERTO RICO Brittany Marburger, Ashlee Douglass, Koi Tavares, Talia Kosonovich, Glenn Morrison, Haley Bell, Chloe Smith, Christina Loewe, Madison Mamula		
CULTURAL CENTER	12:00 PM-1:00 PM		
	EXPERIENCE ALASKA: TRANSFORMATIVE TRAVEL EXPLORES SUSTAINABILITY, URBAN AND RURAL LIFE, FOOD SECURITY, HEALTHCARE, HOUSING NEEDS, AND ENVIRONMENTAL CONSERVATION.		
	Jonas Clark, Aubrey Suttelle, Owen Martin, Rachel Brady		







URAC-2024

PUBLIC SPEECH & DEBATE

# **Berlin Lounge**

#### URAC-2024 PUBLIC SPEECH & DEBATE

**BERLIN LOUNGE** 

#### PUBLIC SPEECHES — 2:30 - 3:30 PM

2:30 PM	2:40 PM	2:50 PM
** <b>Trans-plaining</b> Tyler Hunter	Three Classrooms  Alyjah McHugh	COVID Conversations  Victoria Valcarcel Matos and Wesley Yeager
3:00 PM	3:10 PM	3:20 PM
Switching Priorities: A Look into the Rising Threat of the Glock Switch  Makyla Wheeler	Our Public Opinion Polling Panacea Jaden Sowers	Extemporaneous Speaking Ellis Moore

<sup>\*\*</sup>This speech includes depictions of personal traumas that may be difficult for some audiences.









#### URAC-2024 PUBLIC SPEECH & DEBATE

**BERLIN LOUNGE** 

#### **GROUP EVENTS**

#### 11:00 AM - 12:00 PM

#### **PARLIAMENTARY DEBATE**

Kent Dunn, Krysta Germanoski, Alyjah McHugh, Ellis Moore



#### 3:30 - 4:00 PM

#### READER'S THEATER: TEACHING PEACE

Kent Dunn, Krysta Germanoski, Tyler Hunter, Alyjah McHugh, Ellis Moore, Jaden Sowers, Victoria Valcarcel Matos, Makyla Wheeler and Wesley Yeager











#### WESTMINSTER BEE COMPANY

#### **Our Mission**

We provide sustainable, natural, and local honey and bee products from Westminster College's Apiary. This venture and your purchase supports students, a hands-on education, and the environment.



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Congratulations to all undergraduate researchers, performers, and artists presenting today!

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I feel a sense of responsibility, as an alumnus, to nurture Westminster College's potential for ongoing growth and prosperity.

By establishing a consistent practice of giving as a member of the Westminster Coffee Club, I maintain my strong connection to the Titan community and guarantee a lasting place at home in New Wilmington.

C. Harrison Greene '16

Broadcast & Digital Communications Major

The Office of Institutional Advancement is honored to work with alumni and friends to help advance the mission of Westminster College.









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#### **Academic Programs:**

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- Environmental Studies

#### **Data Collection:**

- Robert (Bob) V. Travis Weather Station
- Solar Panel Array
- Successional Plots
- · Water Quality



#### Other Educational **Programs:**

- · Modules in liberal arts courses
- Outdoor STEM camp
- Summer community programming

#### **Outdoor Facilities:**

- Field Station
- Nature Center
- College Woods
- Brittain Lake

#### **Outdoor Educational Resources:**

- Apiary
- Arboretum
- Bill and Virginia Offutt Microforest
- Bird Blind
- Composting

- Edmiston Labyrinth
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- "Meg" Rankin Garden
- Tiny House Project Wind Turbine

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- · Challange students outside their comfort zones
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- · Cultivate community & connections to nature
- · Foster entrepreneurial mindset

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### WESTMINSTER COLLEGE

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CONTACT:
ALLISON ILLIG
ASSISTANT DIRECTOR
OF ADMISSIONS

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#### WESTMINSTER COLLEGE

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