



Indiana University of Pennsylvania

IUP Scholars Forum

Wednesday, April 10, 2024

PROGRAM



IUP Scholars Forum

Kovalchick Convention and Athletic Complex



The PNC Room is open from 8:00 -11:00 AM as a break room, and from 11:00 AM to 1:00 PM with lunch.

Nineteenth Annual IUP Scholars Forum

Sponsored by
School of Graduate Studies and Research

Program at a Glance

8:15 AM – 11:00 AM	Registration KCAC Lobby Atrium		
9:00 AM – 11:00 AM	Business Case Studies Global Executive Room		
9:00 AM – 12:00 PM	Juried Art Exhibit Mackey Lobby		
9:00 AM – 12:00 PM	Podium Presentations Sessions		
• A	<i>Education and Communication</i>	09:00–10:20 AM	Toretti Auditorium
• B	<i>Art and Humanities</i>	10:00–11:40 AM	Conference Room 9
• C	<i>Health and Human Services</i>	10:00–11:40 AM	Conference Room 8
• D	<i>Natural Science and Mathematics, Pt 1</i>	09:00–11:00 AM	Conference Room 7
• E	<i>Natural Science and Mathematics, Pt 2</i>	10:00–11:40 AM	Conference Room 6
• F	<i>Business and Economics, Pt 1</i>	10:00–11:40 AM	Conference Room 5
• G	<i>Business and Economics, Pt 2</i>	09:00–11:00 AM	Conference Room 4
• H	<i>Business and Economics, Pt 3</i>	10:00–11:20 AM	Conference Room 3
9:00 AM – 12:00 PM	Poster Presentations KCAC Arena Floor		
11:00 AM – 12:00 PM	Three Minute Thesis Toretti Auditorium		
11:30 AM - 1:00 PM	Lunch PNC Conference Room		

Special Thanks to:

- Scholars Forum Planning Committee
- School of Graduate Studies and Research
- Scholars Forum Judges
- Alumni and Volunteers
- Jones White Writing Center
- IUP Research Institute
- Applied Research Lab
- Cook Honors College
- Office of Undergraduate Research

Award Sponsors:

- Academic Deans
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Scholars Forum Planning Committee:

- D Driscoll • B Jackson • S Massey • N Muchtar • SA Maicaneanu • A Palmiotto • Y Sissoko • J Villemain • L Yan •

2024 Judges:

* Alumni judges

- F Allard • A Andrew* • B Angelini* • J Barner • J Baum Mehus • C Bennike • K Blair* • A Brady* • B Brandt* • D Bricker* • WE Brown Jr* • S Buterbaugh* • W Chadwick • B Christy* • J Cunningham* • C Davis • M Davis* • L Dawood • N Deardorff • D Dolgos* • T Edwards • C Emanuel* • R Floyd* • B Ford • R Fox • T Fries • J Fyock* • K Gardner* • J Goga* • J Griffin* • L Hao • J Heisler • R Hildebrand • L Homsey-Messer • B Ihnat* • A Jain • P Jain* • W Joseph* • J Jozefowicz • S Jozefowicz • A Kappel • S Eppich • L Knight • K Kowalski* • B Kubala* • L Kubala* • Y Kuo • L Kupchella1 • L Kurtz* J Levey • SC Lu • A Maicaneanu • L Marin • C McAllister* • S Mihalacki* • Sadie Miller • Steven Miller* • W Morrison* • A Muchtar • S Muir • C Navaratna • T O'Connor* • D Pastorkovich* • A Pavloski* • N Pinizzotto* • C Rafferty* • M Richards • M Robb • T Runge • M Russo* • M Secrist* • SM Sibert • R Sickles* • P Sirianni* • Y Sissoko • C Smith* • J Stango* • K Stanko* • J Sutton* • L Svidton-Stroup* • R Thornton* • H Travis • C Vaccaro • M Walker* • D Wargo* • J Warnock • W Waugh* • L Weddell* • S Wheeler • D Widzowski • J Wiley* • L Yan • M Zambrano-Paff • M Zreiqat • A Zumpetta*

2024 Volunteers and Moderators:

* Alumni volunteers and moderators

- E Ashe • S Aumick • J Beltran • D Dickerson • B Dull* • S Frank* • N Hornsby* • CY Huang • C Murphy • L Nesgoda • D Scardina • J Scotton • R Sharma • A Trimble

BUSINESS CASE STUDY SHOWCASE
Global Executive Room
9:00 – 11:00 AM

This showcase includes students from the Eberly School of Business as they pitch solutions to business case studies from 9:00 to 11:00 AM. Organizer: Yaya Sissoko.

Pres #	Business Case Title	Team Member(s)	Faculty Mentor
I-01	How Bad is Uganda's Poverty and How Can They Help It	Alexander, Alexander; Chayce McCombie	Yaya Sissoko
I-02	Measuring Government Corruption and Wealth Disparities as Main Contributors to Kenyan Poverty	Flores, Angel	Yaya Sissoko
I-03	<i>Presentation withdrawn</i> Zambia Poverty Plan	Zik, Nathaniel	Yaya Sissoko
I-04	The Rise of the Sahel States: Bridging the Gap through Agricultural and Industrial Policy	Wallace, Ian	Yaya Sissoko
I-05	Factors affecting the average wage: Challenges for business firms.	Walubengo Mukaisi, James	Yaya Sissoko
I-06	Unveiling the Power of Soft Skills: A Catalyst for Success and Profitability in Contemporary Organizations	Marwa, Babere; Benita Abuo	Yaya Sissoko

**JURIED ART EXHIBITION
Mackey Lobby**

This exhibition is open from 9am to 12pm and features artworks created by a select group of students. The artworks are juried by faculty members and represent the breadth of studio research conducted during the 2023/2024 academic year. Exhibit Organizer: Sharon Massey

Pres #	Title	Artist	Faculty Mentor
J-01	Trojan Horse	Zeff, Klaus	BA Harrington
J-02	Addiction	Jaworski, James	BA Harrington
J-03	band saw box	Fortushniak, Simon	BA Harrington
J-04	Kopchick bench model	Fortushniak, Simon; James Jaworski	BA Harrington
J-05	Tune In	Muzy, Lucca	BA Harrington
J-06	Two Homes: An Exploration of Light and Dissonance	Van Wieren, Benjamin	Ivan Fortushniak
J-07	A Banana and a Girl	Fortushniak, Edith	Ivan Fortushniak
J-08	Girl Eating A Donut	Egizio, Justin	Ivan Fortushniak
J-09	A koi covered daydream	Hoffman, Faith	Ivan Fortushniak
J-10	Study of a light eyed stranger	Hoffman, Faith	Ivan Fortushniak
J-11	Fragility	Hoffman, Faith	Sean Derry
J-12	through a glass, darkly	Cooper, Jon	Sharon Massey
J-13	vanities: absinthe becomes us	Cooper, Jon	Sharon Massey
J-14	Valentine Cat Enamel Brooch	Shaffer, Juliana	Sharon Massey
J-15	From the Garden	Shaffer, Juliana	Sharon Massey
J-16	Nat 20	Slusser, Kaitlyn	Sharon Massey
J-17	Spam Can	Feeney, Shiloh	Sharon Massey

Oral Presentation Sessions

SESSION A: Education and Communication

9:00–10:20 am, Toretta Auditorium

Moderator: Chin-Yi Huang

Time	Presentation	Author(s)	Faculty Mentor
A-01 09:00	<i>Pre-recorded presentation</i> Political Music and In-group and Out-group Behavior of Electorates in Nigeria	Ahmad Sulaiman, Nafisah	Nurhaya Muchtar
A-02 09:20	From Crisis to Connection: Strategic Communication in Nepal's 2015 Earthquake Recovery	Sharma, Ram	Nurhaya Muchtar
A-03 09:40	<i>Pre-recorded presentation</i> The Effect of Political Songs on Choice of Candidate, Political Ideology, and Party Loyalty Among Young Nigerians	Ahmad Sulaiman, Nafisah	Nurhaya Muchtar
A-04 10:00	<i>Pre-recorded presentation</i> Russia-Ukraine war and decolonizing Kazakhstan: Communicating crisis through Facebook	Bairbek, Nazira	Nurhaya Muchtar

SESSION B: Art and Humanities

10:00–11:40 am, Conference Room 9

Moderator: Jessica Beltran

Time	Presentation	Author(s)	Faculty Mentor
B-01 10:00	Covid-19 and How it Affected Our Perception of Time	Majocha, Erika	Lingyan Yang
B-02 10:20	The Crimean War Through the Eyes of Florence Nightingale	Mwangi, Victoria	Lingyan Yang
B-03 10:40	Androgynism: Recognition of the Influence of Hieros Gamos – the Ancient Masculine-Feminine Sacred Union – in Literature, Art, and Film of the 20th and 21st Centuries	Sateriale, Brian	Christopher Orchard
B-04 11:00	Colonial Independence: A Comparison of Puerto Rico and the Philippines	Wanat, Olivia	Soo Lu
B-05 11:20	Scenes of Mesoscale Activity	Egan, Sam	John Levey

SESSION C: Health and Human Services
10:00 am – 12:00 pm, Conference Room 8
Moderator: Jazmine Scotton

Time	Presentation	Author(s)	Faculty Mentor
C-01* 10:00	Negative Mental Health Outcomes in Emerging Adults Estranged from a Parent	Grill, Meghan	Tara Johnson
C-02 10:20	The Impact of Parental Involvement on Juveniles on Probation	Staresinic, Cara	Alida Merlo
C-03 10:40	An Interrupted Time Series Analysis of Mexico's Ley General and Human Trafficking Investigations	Juarez, Alessa	Sadie Miller
C-04* 11:00	Comparing Incentive Spirometer Volumes Achieved in the IUP Student Population who Vape vs. People Who Don't	Glunt, Rachael; Faith Kennedy; Sherrienne Carpenter; Jade McClellan	Jack Albert
C-05 11:20	Barriers to Recreational Park Access and Usage	Zhou, Ella; Joseph Madia; Carlos Chimal Rodriguez; Rachel Kopicko; Noah Gentle	Brandon Vick
C-06 11:40	How Switching From Cigarettes Smoking to Vaping Effects Smokers?	Maghfuri, Hassan; Abdullah Alnakhli; Suhayb Alyahya	Jack Albert

SESSION D: Natural Sciences and Mathematics, Part I
9:00–11:00 am, Conference Room 7
Moderator: Dakota Dickerson

Time	Presentation	Author(s)	Faculty Mentor
D-01* 9:00	Optimizing Logistics Efficiency in Small and Medium Enterprises: A Mathematical Modeling Approach.	Olushola, Akinbusola; Bright Forkenberg; William Ngigi	Yu-Ju Kuo
D-02* 9:20	Enhanced Machine Learning Techniques to predict College Admissions	Olushola, Akinbusola; William Ngigi	Frederick Adkins and Yu-Ju Kuo
D-03* 9:40	Modeling the Optimization for Formula 1 Racing	Buterbaugh, Morgan; Jaylee Lassinger; Josh Pettenó	Yu-Ju Kuo and Frederick Adkins
D-04* 10:00	Utilization of Optimization and Machine Learning in Poverty Reduction: A Study of Pennsylvania Counties	Davis, Alan; Angelique Alcantara	Yu-Ju Kuo
D-05 10:20	Optimizing Mathematical Models to Minimize Long-Term Side Effects of Proton Therapy	Moffat, Samuel; Michael Raus; Toby Trotta	Yu-Ju Kuo
D-06 10:40	A Longitudinal and Cross-Sectional Analysis for Education Level and Alzheimer's	Trotta, Toby; Samuel Moffat	Yu-Ju Kuo

SESSION E: Natural Sciences and Mathematics, Part II

10:00–11:20 am, Conference Room 6

Moderator: Abby Trimble

Time	Presentation	Author(s)	Faculty Mentor
E-01* 10:00	AI and The Future of Humanity: An Anthropological Perspective	Carone, Lily	Francis Allard
E-02* 10:20	Exploring Generated Music from a Song Seed: Taylor Swift's Next Hit?	Buterbaugh, Morgan	John Chrispell
E-03* 10:40	The Perception of Workplace Hazards Among Managers in the Steel Manufacturing Industry	Endress, Brooke; Chloe Croft	Majed Zreiqat
E-04* 11:00	Analyzing Socio-Economic Factors and Optimization Strategies for Enrollment Management	Modlin, Grace; Rebecca Grandinette	Yu-Ju Kuo

SESSION F: Finance and Economics, Part I

10:00–11:40 am, Conference Room 5

Moderator: Serena Aumick

Time	Presentation	Author(s)	Faculty Mentor
F-01 10:00	Examining the Determinants of Property Crime in the 58 California Counties	Ryan, Nick; Ethan Duguid	James Jozefowicz
F-02 10:20	My Body, My Vote: Determining the Impact of Abortion Rights and Extremism on the 2022 Midterm Elections	Bigham, Samuel	James Jozefowicz
F-03 10:40	Analyzing Determinants of Major League Baseball Game Attendance	Holes, Jacob; Nate Zik	James Jozefowicz
F-04 11:00	Shooting for Success: An Econometric Analysis of Factors Influencing NBA Salaries	Sieber, John; Myca Torrance	James Jozefowicz
F-05 11:20	Determinants and Trends of the Female Labor Force Participation Rate in Bangladesh, India, and Pakistan	Haque, Shagufta; Caleb Johnson	James Jozefowicz

**Women in STEM presentation*

SESSION G: Finance and Economics, Part II

9:00–11:00 am, Conference Room 4

Moderator: TBD

Time	Presentation	Author(s)	Faculty Mentor
G-01 9:00	Rural Poverty in Africa	Muhammad, Janiia	Yaya Sissoko
G-02 9:20	Increasing Economic Diversification as a Means to Reduce Poverty in Cote d'Ivoire	Stoner, Chloe	Yaya Sissoko
G-02 9:20	Presentation withdrawn Mozambique and it's poverty issues.	McCunn, Devin; Mary Grow	Yaya Sissoko
G-03 9:40	The Effectiveness of Cameroon's Social Safety Nets and Public Financial Management to Reduce Poverty and Improve the Economy	Moyer, Erik	Yaya Sissoko
G-04 10:00	CPR	Hornickel, Ryan; Alexander Myers	Yaya Sissoko
G-05 10:20	Environmental Issues and African Poverty in Madagascar	Appleby, Ronald	Yaya Sissoko
G-06 10:40	Globalization and African Poverty in Senegal	Thompson, Daevon	Yaya Sissoko

SESSION H: Finance and Economics, Part III

10:00–11:20 am, Conference Room 3

Moderator: Barbara Dull and Nancy Hornsby

Time	Presentation	Author(s)	Faculty Mentor
H-01 10:00	Evaluating Tanzania Economic Plan	Swanson, Tyler	Yaya Sissoko
H-02 10:20	Togo	Hogan, Ian	Yaya Sissoko
H-03 10:40	The history of South Africa, its people, plants & animals, education, healthcare, primary cause of poverty, and its economy.	St Rose, Alexandra	Yaya Sissoko
H-04 11:00	Combating Poverty in Libya: A Comprehensive Economic and Social Analysis	Houser, Adam; Daniel Deabner	Yaya Sissoko

Poster Presentation Sessions

KCAC Arena Floor
9:00 AM – 12:00 PM

SESSION P1: Finance and Economics (Judging 11:00 AM – 12:00 PM)

Pres.	Title	Author(s)	Faculty Mentor
P-01	<i>Presentation withdrawn</i> Poverty in Ghana	Griffith, Isaac; Blanton Tolbert	Yaya Sissoko
P-02	Breaking the Chains of Poverty in Egypt- Insights, Challenges, and Pathways to Progress"	Baldani, Amber	Yaya Sissoko
P-03	<i>Moved to podium session G</i> Increasing Economic Diversification as a Means to Reduce Poverty in Cote d'Ivoire	Stoner, Chloe	Yaya Sissoko
P-04	Wages Analysis Based on Skills and Requirements	Arriagada, Vicente	Yaya Sissoko
P-05	Sector Analysis of Stock Market Volatility	Moore, Austin; Victor River	Todd Potts
P-06	Investigating Relationship Between Beta and Returns for the S&P 500	Sieber, John; Myca Torrance; Caleb Johnson	Todd Potts

SESSION P2: Arts and Humanities (Judging 10:00–11:00 AM)

Pres.	Title	Author(s)	Faculty Mentor
P-07	Anthropomorphism in AI	Yoder, Gavin	Leo Yan
P-08	What is Music? A Philosophical Analysis of Western Music	Thomas, Jordan	Leo Yan
P-09	'To Post or Not to Post?' Gen Z Multilingual Students' Habits and Usages of Digital Tools and Digital Identity Construction During Pandemic	Moroz, Oksana	Matthew Vetter
P-10	Developing a Plan to Handle Any College-Level Writing Assignment	Mahmoud, Ammar	Dana Driscoll

SESSION P3: Health and Human Services, Part I (Judging 11:00 AM – 12:00 PM)

Pres.	Title	Author(s)	Faculty Mentor
P-11	Expanding Our Self-Views: Examining a Writing Intervention to Reduce Self-Objectification	McNaught, Morgan	Anson Long
P-12	Examining I-sharing as a First Step in Forming Friendships	Croyle, Lauren	Anson Long
P-13	Moved to podium session C How Switching From Cigarettes Smoking to Vaping Effects Smokers?	Maghfuri, Hassan; Abdullah Alnakhli; Suhayb Alyahya	Jack Albert
P-14	Beyond the Love: how passion influences resiliency in adolescents enrolled in music ensembles	Allen, Julie	Courtney Leone
P-15*	The difference in Motivation and Obstacles to Exercise Between General University Students and Students in Sport or Health Majors.	Yamashiro, Naoyuki	Richard Hsiao

SESSION P4: Health and Human Services, Part II (Judging 11:00 AM – 12:00 PM)

Pres.	Title	Author(s)	Faculty Mentor
P-16*	Physical Activity and the Role it Plays on Stress Levels: Comparing Student Athletes and Non-Student Athletes' Stress Levels	Burke, Hayley	Richard Hsiao, Robert Alman, and Jessica Baum Mehus
P-17	Exploring the Mutual Benefits of Sponsorship Agreements in University Athletics	Uchimura, Kaisei	Robert Alman
P-18	Coach's Leadership Behavior in Team Solidarity and Team Performance	Dhungana, Nishant	David Lorenzi
P-19	Allegheny County and Environmental Injustices: A Mixed Methods Approach	Lawrence, Amber	Hilario Molina

SESSION P5: Health and Human Services, Part III (Judging 9:00–10:00 AM)

Pres.	Title	Author(s)	Faculty Mentor
P-20	Recidivism and its Costs for Indiana County	Jebitsch, Micaela	Christian Vaccaro
P-21	10-Year Criminal Offense Trends in Indiana County	Spezialetti, Emily	Christian Vaccaro
P-22	Exploring Gender and Racial Dynamics in Indiana Indigent Defense Representations	Oraskovich, Thomas	Christian Vaccaro
P-23	Does the Process Matter? Student Perceptions of IUP's Community Standards Procedures	Sorensen, Jenna; Adam Jones	Adam Jones

*Women in STEM presentation

SESSION P6: Anthropology, Part I (Judging 11:00 AM – 12:00 PM)

Pres.	Title	Author(s)	Faculty Mentor
P-24*	There's Just Magic in Movies	Williams-Smith, Brittney	Abigail Adams
P-25*	Indigenous Clan Animal Representation at the Late Archaic Pockoy Shell Ring #1	Tech, Cassidy	Andrea Palmiotto
P-26*	A Zooarchaeological Analysis of Platform Mound Features at a Mississippian Mound Town, Site 38KE12, Kershaw County, South Carolina	Sykora, Emily	Andrea Palmiotto
P-27*	A ceramic analysis of the Mary Rinn site (36IN29) a Late Woodland site in Indiana County, PA	Tripp, Kahlan	Lara Homsey-Messer
P-28*	Analyzing Fire-Cracked Rock at Mary Rinn for Comparison to Monongahela Sites	Frye, Elena; Heather Alvarado	Lara Homsey-Messer

SESSION P7: Anthropology, Part II (Judging 10:00–11:00 AM)

Pres.	Title	Author(s)	Faculty Mentor
P-29*	Pittsburgh's Chinatown: A Study of Chinese Immigrants in Western Pennsylvania	Broughton, Laura	Benjamin Ford
P-30	The Use of Geophysical Survey Versus Random Sampling in Archaeological Survey of a Euro-American site in Western Pennsylvania.	Nelson, Wesley	Benjamin Ford
P-31*	A Demography of the Dead: A Survey of Laurel Hill Cemetery, A Rural African American Cemetery in Western Pennsylvania	Lashley, Emma	Benjamin Ford
P-32*	Geophysical Survey of the Friendly Fire Incident, French and Indian War, Pennsylvania	McCreary, Elizabeth	William Chadwick

SESSION P8: Geography, Geology, Environment, and Planning, Part I (Judging 10:00–11:00 AM)

Pres.	Title	Author(s)	Faculty Mentor
P-33*	Drone Acquired Data for Energy Analysis of IUP Buildings	Parks, Emily; Joshua Merichko	John Benhart
P-34*	A GIS Analysis of Drone Flight Risks and Sensor Optimization in Cambria County	Gutierrez, Micah; Angela Briandt	John Benhart
P-35	A GIS Analysis of Drone Flight Risks and Sensor Infrastructure in Cambria County	Wood, Michael	John Benhart
P-36	Spatial Flood Risk Analysis of Two Lick Watershed	Buzzelli, Eric	John Benhart
P-37*	Two Lick Creek Flood Hazard Risk	Ebbs, Cheyenne; Morgan Cheek	John Benhart

SESSION P9: Geography, Geology, Environment, and Planning, Part II (Judging 11:00 AM – 12:00 PM)

Pres.	Title	Author(s)	Faculty Mentor
P-38*	Spatial Analysis of Drone Flight Risk and Minimum Viable Infrastructure in Somerset County, Pennsylvania	Parks, Emily	John Benhart
P-39*	Spatial Analysis of Drone Flight Risk and Enhanced Sensor Infrastructure in Somerset County, Pennsylvania	Shingleton, Kyla	John Benhart
P-40	Drone Acquired Data for Analysis of Energy Efficiency in IUP Buildings	Kukula, Daniel	John Benhart
P-41*	Drone Data Acquisition to Estimate Coal Waste Pile Combustion and Volume Estimation	Lux, Lillian; Aaron Capouellez	John Benhart
P-42	Horizontal and Vertical Accuracy of Orthophoto Mosaics Derived from Drone-Acquired Imagery	Smith, William; Tyler Jonson; Braden Yard; Matthew Bucko	John Benhart

SESSION P10: Geography, Geology, Environment, and Planning, Part III (Judging 11:00 AM – 12:00 PM)

Pres.	Title	Author(s)	Faculty Mentor
P-43*	Spatial Public Health Analysis of Indiana County, Pennsylvania	Baker, Shannen; Danica Stroup	John Benhart
P-44	Spatial Analysis of Drone Flight Risk and Drone Infrastructure — Indiana County	Taylor, Brandon	John Benhart
P-45	Spatial Analysis of Drone Flight Risk and Minimum Viable Infrastructure in Indiana County, Pennsylvania	Nickas, Aaron	John Benhart
P-46	Drone Data Acquisition to Estimate Coal Waste Pile Combustion and Volume Estimation in McIntyre, PA	Nickas, Aaron	John Benhart

SESSION P11: Geography, Geology, Environment, and Planning, Part IV (Judging 10:00–11:00 AM)

Pres.	Title	Author(s)	Faculty Mentor
P-47	Beginning Investigations of Road Salt Impacts on Indiana, PA Streams	Oshenic, Kyle	Nicholas Deardorff
P-48*	Cross-analysis of Reheated Eruption Samples from Oregon Cascade Cinder Cone Volcanoes	Hoover, Morgan	Nicholas Deardorff
P-49	Assessing the Environmental Impact of Mountaintop Removal Mining in Southern West Virginia through Remote Sensing Analysis	Merichko, Joshua	Christopher Schaney
P-50*	A Remote Sensing Assessment on the Impact of Sea Level Rise within the Saxis Wildlife Management Area	Lux, Lillian	Christopher Schaney
P-51	A Spatial Analysis of Carbon Storage in Peat Bogs	Gutierrez, Micah	Christopher Schaney

SESSION P12: Geography, Geology, Environment, and Planning, Part V (Judging 10:00–11:00 AM)

Pres.	Title	Author(s)	Faculty Mentor
P-52*	Establishing a Baseline of Stream Characteristics in Indiana County, PA: Leveraging Community Connections	Burbank, Hope; Katherine Farnsworth	Katherine Farnsworth
P-53	Constraints on the Transition from Subduction to Exhumation in the North Central Range, Taiwan	Falvo, Bennett	Jon Lewis
P-54*	A Case Study of Urban Agriculture Policy and Results in Detroit, Michigan	Shingleton, Kyla	Calvin Masilela
P-55	Modeling the Potential impact of the Asian Longhorned Beetle on Pennsylvania: An Exploratory Study	Goins, Eric	Calvin Masilela

SESSION P13: Biology, Part I (Judging 10:00–11:00 AM)

Pres.	Title	Author(s)	Faculty Mentor
P-56	The Effects of Culverts on Fish Communities in Western Pennsylvania Streams	Blackburn, Brady; David Janetski; Eric J. Chapman; Eli Long; John Berger; Trent Millum	David Janetski
P-57*	Influence of Road Culverts on Fish Species Composition in Pennsylvania Streams	Condon, Hannah	David Janetski
P-58*	Effects of the herbicide Glyphosate on biological assemblages in a Western Pennsylvania stream	Farrington, Sierra; Brice Cole; Morgan Cheek; Lily Palfrey	David Janetski
P-59*	<i>Presentation withdrawn</i> Observed Impacts of Extreme Weather and Management on Loblolly Pine Growth	Palfrey, Lily; Andrew Muth	Michael Tyree
P-60*	Assessing size and frequency of canopy gaps of Whites Woods Nature Center	Adams, Maya; Samantha Trout	Michael Tyree

*Women in STEM presentation

SESSION P14: Biology, Part II (Judging 11:00 AM – 12:00 PM)

Pres.	Title	Author(s)	Faculty Mentor
P-61*	The Efficacy of Bupropion and Naltrexone in Treating Methamphetamine Addiction	Martsof, Catherine	Daniel Widzowski
P-62*	Behavioral Microanalysis of Pre vs. Post Conditioning Data Collected from Conditioned Placement Preference Trail 5: Mirtazapine and Methamphetamine Relapse Prevention	Borys, Hannah	Daniel Widzowski
P-63*	<i>INVESTIGATING THE EFFICACY OF BETA-2 ADRENERGIC RECEPTOR BLOCKERS IN MITIGATING DOXEPIN-INDUCED WEIGHT LOSS AND ADIPOSE MASS REDUCTION</i>	<i>McRavion, Ebona; Madhav Sharda</i>	<i>Daniel Widzowski</i>
P-64*	Why the Swamper Crossed the Road: Space Use of Adult Female Endemic Ctenosaura, <i>Ctenosaura bakeri</i>	Harding, Court; Maria Celeste Molina Zavala; Josiah Townsend	Josiah Townsend
P-65	A Review the Amphibian Diversity in Somerset, Westmoreland, Indiana, and Cambria Counties in Pennsylvania	Capouellez, Aaron	Josiah Townsend
P-66*	Bioacoustic analyses of four endemic anurans during an explosive breeding aggregation in the Lenca Highlands of Honduras	Tate, Hayley	Josiah Townsend

SESSION P15: Biology, Part III (Judging 10:00–11:00 AM)

Pres.	Title	Author(s)	Faculty Mentor
P-67*	Wastewater Surveillance using GeneXpert PCR	Booth, Cassandra	Narayanaswamy Bharathan
P-68*	Assessment of Student Learning in a High School Biology Classroom	Snyder, Hannah	Holly Travis
P-69*	Investigating the Efficacy of Graphic Organizers in Enhancing Understanding of Evolutionary Concepts in 7th Grade Life Science	Crunick, Olivia	Holly Travis
P-70*	Effects on Learning: Guided Notes vs. Free Note-Taking	Kauffman, Samuel; Holly Travis	Holly Travis
P-71*	Evaluating Tobacco Use Among United States Air Force Military Trainees	Martsof, Catherine; Mohit Chhatpar	Mohit Chhatpar

*Women in STEM presentation

SESSION P16: Chemistry (Judging 10:00–11:00 AM)

Pres.	Title	Author(s)	Faculty Mentor
P-72*	Intrinsic Disorder in the Saccharomyces cerevisiae Srs2 Helicase C-terminal Domain	Rokosky, Caleb; Jana Villemain	Jana Villemain
P-73	Synthesis of Metal-Doped Mesoporous Glasses	Villemain, Seth	Andrada Maicaneanu
P-74*	Preparation of Activated Carbons from Hickory Husks	Sullivan, Riley	Andrada Maicaneanu
P-75	Adsorption of Ruthenium Metal Complexes on Clay and Zeolite	Bradley, Parker	Avijita Jain
P-76*	Not Your Average Joe: The Concentration of Caffeine Over Time in Yuki Minami	Clayton, Isabelle	Nathan McElroy

SESSION P17: Mathematics and Computer Sciences (Judging 9:00–10:00 AM)

Pres.	Title	Author(s)	Faculty Mentor
P-77*	Enhanced BSTS and LSTM models for Analysis of Irregular Time series Data	Olushola, Akinbusola	Yongtao Cao
P-78*	Network Traffic Anomaly Detection Using XGBoost Within a Federated Learning Environment	Weidensall, Ainsley; Samuel Moffat; Nicholas Reid; Ethan Hiester	Soundararajan Ezekiel
P-79	Unsupervised Clustering and Labeling for Customer Service Interactions: Enhancing Conversational Analytics with NLP	Cerutti, Shane	Frederick Adkins
P-80	Predicting Insurance Fraud in Order to Reduce Losses	Tseng, Alexander; Ben Lawton	Frederick Adkins and Yu-Ju Kuo
P-81*	Comparing Machine Learning Algorithms in Live Network Data Classification	Reid, Nicholas; Samuel Moffat; Ainsley Weidensall; Ethan Hiester	Waleed Farag

**Women in STEM presentation*

SESSION S: STEM High School Poster Presentations

KCAC Arena Floor (9:00 AM–12:00 PM)

This session features exemplary research conducted by a select group of Indiana Area and Black Lick Valley High Schools students under the mentorship of Ms. Emily Hixson and Ms. Breanna McGhee.

Organized by Dr. Holly Travis.

Pres #	Title	Author
S-01	Oh, How the Tides Have Turned	Palko, Mackenzie
S-02	How Do Cockroaches React to Stimuli Testing	Jacobson, Mackenzie
S-03	Biodegradable Hydrogels	Ream, Isabella
S-04	Circadian Rhythms	Woods, Kayla
S-05	Down and Dirty	Brosch, Maia
S-06	Stop the Bleed	Woods, Savannah
S-07	Cockroaches IQ	McConnell, Lyla
S-08	Mushroom Mania	Mourey, Sarah
S-09	Soil Acidity Effects on Starch-Based Bioplastic Degradation	Cormier, Hazel
S-10	Biomedicine	Weber, Julia
S-11	Soundwaves as an Antibiotic/Caffeine on Alzheimer's	Ali, Vania
S-12	Sound Pollution Growth Experiment	Apjok, Ava
S-13	Comparing Chemical Compounds of Ibuprofen and a Natural Substitute	Blystone, Matthew
S-14	Computer Prediction of Population Growth	Coleman, Ethan
S-15	Spelling Interventions with Students	Cowburn, Hannah
S-16	Electromagnetic Propulsion	Dunmyer, Gavin
S-17	Birds	Edmonds, Avery
S-18	Flywheel Energy & Design	Lin Xu, Matthew
S-19	AI-Chat GPT vs Student Work	Mill, Katelyn
S-20	Electrical Stimulation on Nerve Cell Regeneration	Stevens, Lillian
S-21	Water Quality and Ecology	Villa, Elizabeth
S-22	Brainwaves Need EEG?	Wheeler, Alexa
S-23	Contents of non-FDA Approved Vitamins	Ball, Jadyn
S-24	Differences in Magnetic Behavior in Nanocrystals	Wang, Ronaldo
S-25	Antimicrobial Soil DNA	Yuha, Isabella
S-26	Finding the Perfect Jumper Distance	Adams, Lily
S-27	Color Theory	Brown, Alexandra
S-28	Linear Momentum and the Transfer of Energy	Farrington, Alonzo
S-29	Lawn Biodiversity	Grim, Isabella
S-30	Pool Water vs. Swimsuit Fabric	Isenberg, Gabrielle
S-31	Bioluminescence	Lawson, Samantha
S-32	Trekking Pole Generators	Lehman, Jack
S-33	Wireless Energy Bridge	Lin, Edmond
S-34	Adsorption vs Absorption in Water Treatment	Liu, Kevin
S-35	Epithelial Tissue Scaffolding	Nealen, Eva
S-36	Audio vs. Visual Retention	Runge, Emma
S-37	Wind Speed and Flute Tone	Yang, Audrey

Three-Minute Thesis Competition

Toretti Auditorium

11:00 AM – 12:00 PM

This exciting event features graduate students advancing from the preliminary competition into the final round of the 3-Minute Thesis competition. Students have exactly three minutes to present their original scholarship with the aid of one static PowerPoint slide. This event is hosted by the School of Graduate Studies and Research and organized by Kathryn McKeever and Bethany Jackson.

Pres.	Title	Participant	Program
T-01	Pittsburgh's Chinatown: A Study of Chinese Diaspora Archaeology in Pittsburgh, Pennsylvania	Laura Broughton	Applied Archaeology, MA
T-02	Exploring Generated Music from a Song Seed: Taylor Swift's Next Hit?	Morgan Buterbaugh	Applied Mathematics, MS
T-03	Ground Penetrating Radar and Photogrammetry Survey of Laurel Hill Cemetery: An African American Cemetery in Western Pennsylvania	Emma Lashley	Applied Archaeology, MA
T-04	Androgynism: Recognition of Hieros Gamos—the Masculine-Feminine Sacred Union—Influence in Literature and Film of the 20 th and 21 st Centuries	Brian Sateriale	Literature and Criticism, PhD

STUDENT RESEARCHER INDEX

Author	Pres #	Status
Alcantara, Angelique	D-04	Graduate
Abuo, Benita	I-06	Graduate
Adams, Lily	S-26	High School
Adams, Maya	P-60	Undergraduate
Ahmad Sulaiman, Nafisah	A-01, A-03	Graduate
Alexander, Alexander	I-01	Undergraduate
Ali, Vania	S-11	High School
Allen, Julie	P-14	Graduate
Alnakhli, Abdullah	P-13	Undergraduate
Alvarado, Heather	P-28	Graduate
Alyahya, Suhayb	P-13	Undergraduate
Apjok, Ava	S-12	High School
Appleby, Ronald	G-05	Undergraduate
Arriagada, Vicente	P-04	Graduate
Bairbek, Nazira	A-04	Graduate
Baker, Shannen	P-43	Undergraduate
Baldani, Amber	P-02	Undergraduate
Ball, Jady	S-23	High School
Bigham, Samuel	F-02	Undergraduate
Blackburn, Brady	P-56	Graduate
Blystone, Matthew	S-13	High School
Booth, Cassandra	P-67	Undergraduate
Borys, Hannah	P-62	Undergraduate
Bradley, Parker	P-75	Undergraduate
Briandt, Angela	P-34	Graduate
Brosch, Maia	S-05	High School
Broughton, Laura	P-29, T-01	Graduate
Brown, Alexandria	S-27	High School
Bucko, Matthew	P-42	Undergraduate
Burbank, Hope	P-52	Undergraduate
Burke, Hayley	P-16	Graduate
Buterbaugh, Morgan	D-03, E-02, T-02	Graduate
Buzzelli, Eric	P-36	Graduate
Capouellez, Aaron	P-41, P-65	Graduate
Carone, Lily	E-01	Undergraduate
Carpenter, Sherrienne	C-04	Undergraduate
Cerutti, Shane	P-79	Graduate
Cheek, Morgan	P-37, P-58	Undergraduate
Clayton, Isabelle	P-76	Undergraduate
Cole, Brice	P-58	Undergraduate
Coleman, Ethan	S-14	High School
Condon, Hannah	P-57	Undergraduate
Cooper, Jon	J-12, J-13	Undergraduate
Cormier, Hazel	S-09	High School

Author	Pres #	Status
Cowburn, Hannah	S-15	High School
Croft, Chloe	E-03	Undergraduate
Croyle, Lauren	P-12	Undergraduate
Crunick, Olivia	P-69	Undergraduate
Davis, Alan	D-04	Graduate
Deabner, Daniel	H-04	Undergraduate
Dhungana, Nishant	P-18	Graduate
Duguid, Ethan	F-01	Undergraduate
Dunmyer, Gavin	S-16	High School
Ebbs, Cheyenne	P-37	Undergraduate
Edmonds, Avery	S-17	High School
Egan, Sam	B-05	Undergraduate
Egizio, Justin	J-08	Undergraduate
Endress, Brooke	E-03	Undergraduate
Falvo, Bennett	P-53	Undergraduate
Farrington, Alonzo	S-28	High School
Farrington, Sierra	P-58	Undergraduate
Feeney, Shiloh	J-17	Undergraduate
Flores, Angel	I-02	Undergraduate
Forkenberg, Bright	D-01	Graduate
Fortushniak, Edith	J-07	Undergraduate
Fortushniak, Simon	J-03, J-04	Undergraduate
Frye, Elena	P-28	Graduate
Gentle, Noah	C-05	Undergraduate
Glunt, Rachael	C-04	Undergraduate
Goins, Eric	P-55	Undergraduate
Grandinette, Rebecca	E-04	Graduate
Griffith, Isaac	P-01	Undergraduate
Grill, Meghan	C-01	Undergraduate
Grim, Isabella	S-29	High School
Grow, Mary	G-02	Undergraduate
Gutierrez, Micah	P-34, P-51	Graduate
Haque, Shagufta	F-05	Undergraduate
Harding, Court	P-64	Graduate
Hiester, Ethan	P-78, P-81	Undergraduate
Hoffman, Faith	J-09, J-10, J-11	Undergraduate
Hogan, Ian	H-02	Undergraduate
Holes, Jacob	F-03	Undergraduate
Hoover, Morgan	P-48	Undergraduate
Hornickel, Ryan	G-04	Undergraduate
Houser, Adam	H-04	Undergraduate
Isenberg, Gabrielle	S-30	High School
Jacobson, Mackenzie	S-02	High School
Jaworski, James	J-02, J-04	Undergraduate
Jebitsch, Micaela	P-20	Undergraduate

Author	Pres #	Status
Johnson, Caleb	F-05, P-06	Undergraduate
Johnson, Tyler	P-42	Undergraduate
Juarez, Alessa	C-03	Graduate
Kauffman, Samuel	P-70	Undergraduate
Kennedy, Faith	C-04	Undergraduate
Kopicko, Rachel	C-05	Undergraduate
Kukula, Daniel	P-40	Undergraduate
Lashley, Emma	P-31, T-03	Graduate
Lassinger, Jaylee	D-03	Graduate
Lawrence, Amber	P-19	Graduate
Lawson, Samantha	S-31	High School
Lawton, Ben	P-80	Undergraduate
Lehman, Jack	S-32	High School
Lin Xu, Matthew	S-18	High School
Lin, Edmond	S-33	High School
Liu, Kevin	S-34	High School
Lux, Lillian	P-41, P-50	Graduate
Madia, Joseph	C-05	Undergraduate
Maghfuri, Hassan	P-13	Undergraduate
Mahmoud, Ammar	P-10	Graduate
Majocho, Erika	B-01	Undergraduate
Martsof, Catherine	P-61, P-71	Undergraduate
Marwa, Babere	I-06	Graduate
McClellan, Jade	C-04	Undergraduate
McCombie, Chayce	I-01	Undergraduate
McConnell, Lyla	S-07	High School
McCreary, Elizabeth	P-32	Graduate
McCunn, Devin	G-02	Undergraduate
McNaught, Morgan	P-11	Undergraduate
McRavion, Ebona	P-63	Undergraduate
Merichko, Joshua	P-33, P-49	Graduate
Mill, Katelyn	S-19	High School
Modlin, Grace	E-04	Graduate
Moffat, Samuel	D-05, D-06, P-78, P-81	Undergraduate
Moore, Austin	P-05	Undergraduate
Moroz, Oksana	P-09	Graduate
Mourey, Sarah	S-08	High School
Moyer, Erik	G-03	Undergraduate
Muhammad, Janiia	G-01	Undergraduate
Muth, Andrew	P-59	Undergraduate
Muzy, Lucca	J-05	Undergraduate
Mwangi, Victoria	B-02	Undergraduate
Myers, Alexander	G-04	Undergraduate
Nealen, Eva	S-35	High School
Nelson, Wesley	P-30	Graduate

Author	Pres #	Status
Ngigi, William	D-01, D-02	Graduate
Nickas, Aaron	P-45, P-46	Undergraduate
Olushola, Akinbusola	D-01, D-02, P-77	Graduate
Oraskovich, Thomas	P-22	Undergraduate
Oshenic, Kyle	P-47	Undergraduate
Palfrey, Lily	P-58, P-59	Undergraduate
Palko, Mackenzie	S-01	High School
Parks, Emily	P-33, P-38	Graduate
Pettenó, Josh	D-03	Graduate
Raus, Michael	D-05	Undergraduate
Ream, Isabella	S-03	High School
Reid, Nicholas	P-78, P-81	Undergraduate
River, Victor	P-05	Undergraduate
Rodriguez, Carlos Chimal	C-05	Undergraduate
Rokosky, Caleb	P-72	Undergraduate
Runge, Emma	S-36	High School
Ryan, Nick	F-01	Undergraduate
Sateriale, Brian	B-03, T-04	Graduate
Shaffer, Juliana	J-14, J-15	Undergraduate
Sharda, Madhav	P-63	Undergraduate
Sharma, Ram	A-02	Graduate
Shingleton, Kyla	P-39, P-54	Undergraduate
Sieber, John	F-04, P-06	Undergraduate
Slusser, Kaitlyn	J-16	Undergraduate
Smith, William	P-42	Undergraduate
Snyder, Hannah	P-68	Undergraduate
Sorensen, Jenna	P-23	Graduate
Spezialetti, Emily	P-21	Undergraduate
St Rose, Alexandra	H-03	Undergraduate
Staresinic, Cara	C-02	Graduate
Stevens, Lillian	S-20	High School
Stoner, Chloe	P-03	Undergraduate
Stroup, Danica	P-43	Undergraduate
Sullivan, Riley	P-74	Undergraduate
Swanson, Tyler	H-01	Undergraduate
Sykora, Emily	P-26	Graduate
Tate, Hayley	P-66	Undergraduate
Taylor, Brandon	P-44	Graduate
Tech, Cassidy	P-25	Undergraduate
Thomas, Jordan	P-08	Undergraduate
Thompson, Daevon	G-06	Graduate
Tolbert, Blanton	P-01	Undergraduate
Torreance, Myca	F-04, P-06	Undergraduate
Tripp, Kahlan	P-27	Graduate
Trotta, Toby	D-05, D-06	Undergraduate

Author	Pres #	Status
Trout, Samantha	P-60	Undergraduate
Tseng, Alexander	P-80	Undergraduate
Uchimura, Kaisei	P-17	Graduate
Van Wieren, Benjamin	J-06	Undergraduate
Villa, Elizabeth	S-21	High School
Villemain, Seth	P-73	Undergraduate
Wallace, Ian	I-04	Undergraduate
Walubengo Mukaisi, James	I-05	Graduate
Wanat, Olivia	B-04	Undergraduate
Wang, Ronaldo	S-24	High School
Weber, Julia	S-10	High School
Weidensall, Ainsley	P-78, P-81	Undergraduate
Wheeler, Alexa	S-22	High School
Williams-Smith, Brittney	P-24	Undergraduate
Wood, Michael	P-35	Undergraduate
Woods, Kayla	S-04	High School
Woods, Savannah	S-06	High School
Yamashiro, Naoyuki	P-15	Graduate
Yang, Audrey	S-37	High School
Yard, Braden	P-42	Undergraduate
Yoder, Gavin	P-07	Undergraduate
Yuha, Isabella	S-25	High School
Zavala, Maria Celeste Molina	P-64	Graduate
Zeff, Klaus	J-01	Undergraduate
Zhou, Ella	C-05	Undergraduate
Zik, Nathaniel	F-03, I-03	Undergraduate