



EASTERN ILLINOIS UNIVERSITY

STUDENT RESEARCH & CREATIVE ACTIVITY DAY

APRIL 22, 2026

MLK, JR. UNIVERSITY UNION



PROGRAM AT A GLANCE

WELCOME

Grand Ballroom, MLK, Jr. Union

9:30 a.m.

ORAL PRESENTATIONS & PANELS

3rd Floor Meeting Rooms, MLK, Jr. Union

10:00 a.m. – 12:00 p.m.

3 MT (THREE-MINUTE THESIS) COMPETITION, UNDERGRADUATE

Grand Ballroom, MLK, Jr. Union

10:00 a.m.

3 MT (THREE-MINUTE THESIS) COMPETITION, GRADUATE

Grand Ballroom, MLK, Jr. Union

11:00 a.m.

UNDERGRADUATE RESEARCH POSTER SESSION

Grand Ballroom, MLK, Jr. Union

12:20 p.m. – 1:50 p.m.

ORAL PRESENTATIONS & PERFORMANCES

3rd Floor Meeting Rooms, MLK, Jr. Union

1:00 p.m. – 3:00 p.m.

GRADUATE SCHOOL RESEARCH & CREATIVE ACTIVITY EXPOSITION

Grand Ballroom, MLK, Jr. Union

3:30 p.m. – 4:30 p.m.

DISTINGUISHED GRADUATE STUDENT AWARDS CEREMONY

Grand Ballroom, MLK, Jr. Union

5:00 p.m.

CONCURRENT CAMPUS EVENTS

ENGLISH STUDIES CONFERENCE

Coleman Hall, <https://www.eiu.edu/english/conference.php>

BIOLOGICAL SCIENCES RESEARCH FAIR

Life Sciences Building

SPRING CONCERT REHEARSALS (OPEN TO THE PUBLIC)

12:00 p.m. – 12:50 p.m. Wind Symphony

4:00 p.m. – 5:15 p.m. Concert Band

Dvorak Concert Hall (Doudna Fine Arts Center)

Director: Alicia Neal

DETAILED PROGRAM

ORAL PRESENTATIONS & PANELS

10:00 a.m. – 12:00 p.m.

10:00 a.m. – 10:50 a.m. Problem Solving

Arcola/Tuscola Room

Problem Solving in Public and Nonprofit Organizations

Meghan Bentley, Alex Ginnever, Paige Parmenter, Elsie Hernandez, Jayriel Kizer

Faculty Mentor: Jin Hong Kim, Political Science

10:00 a.m. – 10:50 a.m. Educators and Learners

Effingham Room

Using an Integrative Model to Evaluate Cognitive Competencies in English Language Learners

Audrey Kepp

Faculty Mentor: Sham'ah Md-Yunus, Teaching, Learning, and Foundations

The Impact of Vocal Health on Burnout Levels in Choral Music Educators

Allison Cooke

Faculty Mentor: Danelle Larson, Music

11:00 a.m. – 11:50 a.m. Spanish Culture

Arcola/Tuscola Room

Interpretaciones de la Cultura Española Contemporánea

Josephine Carroll, Karina Warfel, Kaitlyn Evans

Faculty Mentor: Kristin Routt, World Languages and Cultures

11:00 a.m. – 11:50 a.m. Psychology

Effingham Room

The Role of Working Memory Load in Eye Movement Desensitization and Reprocessing (EMDR)

Geymin Rosales

Faculty Mentor: Jian Zhu, Psychology

Does Physical Activity Predict Higher Levels of Cognitive Ability?

Josiah Barker

Faculty Mentor: Jeff Stowell, Psychology

11:00 a.m. – 11:50 a.m. Science Communication Film Showing and Discussion

Charleston/Mattoon Room

Butterflies & You: Considerations of Human Relationships with the Natural World

Maddy Colby

Faculty Mentor: Josh Grube, Communication and Journalism

Grand Ballroom, MLK, Jr. Union

The numbers in this program correspond to those on each poster.

1. **Designing and Building an Autonomous Maze-Solving Robot**
Kevin Perry, Alvaro Serna, Krishna Raju, Pratyuta Tata, Anirudh Balmuri, Edgar De La Rosa
Faculty Mentor: Wutthigrai Boonsuk, Technology
2. **Autonomous Walking Sumo Robot**
Kevin Perry, Alvaro Serna, Krishna Raju, Pratyuta Tata, Anirudh Balmuri, Edgar De La Rosa
Faculty Mentor: Wutthigrai Boonsuk, Technology
3. **Positive Impacts on Lake Michigan's Acts and Laws**
Rebecca Feuerborn, Carmen Niemeyer, Madison Lemmons, Caitlyn Vodak
Faculty Mentor: Christopher Laingen, Geology and Geography
4. **Stormwater Pollution in Chicago**
Alisha Frederick, Ellen Ritz, Dev Patel, Xheneta Ademi, Reagan Dorsey
Faculty Mentor: Christopher Laingen, Geology and Geography
5. **Polar Bear Population**
Jessica Wlodarz, Eva Repp, Mikayla Smith, Makala McDaniel
Faculty Mentor: Christopher Laingen, Geology and Geography
6. **Conservation Efforts of the USDA's Forest Service**
Braeden Nichols, Jemma Booth, Duane Carter, Emily Ray, AJ Schrom
Faculty Mentor: Christopher Laingen, Geology and Geography
7. **Bugs in the Mud: Examination of Benthic Foraminifera in the Pleistocene Cool-Water Carbonates of the Southern Tasman Ocean (ODP Leg 189, Sites 1171C and 1168A)**
Max Bruggman
Faculty Mentor: Katherine Lewandowski, Geology and Geography
8. **Bringing World Languages to Life: Teaching and Learning in an After-School Program**
Liz Ziemer, Kaitlyn Evans, Qwinsuan Anderson, Katie Jara
Faculty Mentor: Chistine Eydt-Beebe, World Languages and Cultures
9. **Constructed (Art, Charcoal on Paper)**
Grace Walker
Faculty Mentor: Munire Burcak G. Christensen, Art + Design
10. **The Impact of Nurse-Led Smoking Cessation Interventions on Quit Rates in Adult Smokers**
Jordan Sanchez, Austin Kutz, Maria Torres
Faculty Mentor: Jacy Ghast, Nursing
11. **Medication Adherence in Pediatric Patients with Asthma**
Emma Beurskens, Jazmin Diaz, Laney Hemrich, Maci Mayhall
Faculty Mentors: Jacy Ghast, Nursing

12. **The Effects of Mindfulness-Based Stress Reduction on Burnout, Stress, and Anxiety Among Hospital-Based Registered Nurses**
Isabelle Hensley, Macie Hendrix, Reese Morford
Faculty Mentors: Jacy Ghast, Nursing
13. **Non-Pharmacological Interventions to Reduce Procedural Pain and Anxiety in Pediatric Patients: A Literature Review**
Mashayla Besch, Paige Cutright, Ryan Moody, Whitney Ritter
Faculty Mentors: Jacy Ghast, Nursing
14. **The Effect of Music Therapy in Managing Behaviors in Alzheimer's Patients**
Malea Niemerg, Riley Spencer, Samantha Porter, Marissa Heady
Faculty Mentors: Jacy Ghast, Nursing
15. **The Impact of Anti-Inflammatory Diets on Menorrhagia and Symptom Severity in Reproductive-Aged Women**
Saige Dhom, Faith Zirkelbach, Kaitlyn Ross, Kelsey Fleming
Faculty Mentors: Jacy Ghast, Nursing
16. **Untitled (Art, Charcoal on Paper)**
Eva Kremer
Faculty Mentors: Alicia Little, Art + Design
17. **Untitled (Art, Charcoal on Paper)**
Olivia Teska
Faculty Mentors: Alicia Little, Art + Design
18. **Development of Fluorescence-Based Assays to Assess Cancer Drug Activation by Human Carboxylesterase 2 (CES2)**
Rebecca Agans
Faculty Mentors: Michael Beck, Chemistry and Biochemistry
19. **Development of Fluorogenic Chemical Tools to Study Human Carboxylesterase 1 (CES1)**
Adriana Arroyo Plaza
Faculty Mentors: Michael Beck, Chemistry and Biochemistry
20. **Optimizing Specificity of Fluorogenic Carbonates for Human Carboxylesterase 1 (CES1)**
Lucia Villalobos
Faculty Mentors: Michael Beck, Chemistry and Biochemistry
21. **Utilizing Generative Artificial Intelligence (AI) to Model Human Carboxylesterase (CES) Interactions with Fluorogenic Chemical Tools**
Isabel Fuentes
Faculty Mentors: Michael Beck, Chemistry and Biochemistry

22. **Screening a Library of Fluorogenic Esters to Optimize Specificity for Human Carboxylesterase 1 (CES1)**
Silas Hortenstine
Faculty Mentors: Michael Beck, Chemistry and Biochemistry
23. **Development of Assays to Study Human Carboxylesterase (CES) Non-Synonymous Single Nucleotide Polymorphism Activity**
Lesley Silva
Faculty Mentors: Michael Beck, Chemistry and Biochemistry
24. **Untitled (Art, Charcoal on Paper)**
Jordan Uebelhoer
Faculty Mentor: Alicia Little, Art + Design
25. **Untitled (Art, Charcoal on Paper)**
Amy Schneidermann
Faculty Mentors: Alicia Little, Art + Design
26. **Victoria Woodhull, In Spite of All: The Conflict Between Spiritualists, Suffragists, and Free Lovers in the Early 1870s**
Kendall Holtzhouser
Faculty Mentors: Trevor Burrows, History
27. **Stitches of Faith: Women's Education and Religion in 18th and 19th Century Needlework Pieces**
Haley Stempel
Faculty Mentor: Trevor Burrows, History
28. **Willard & Nation: Women's Roles and Temperance Reform in the American West**
Reese York
Faculty Mentors: Trevor Burrows, History
29. **Faith and Flag: Analyzing Social Persecution of Catholic Individuals in the United States, 1870-1950**
Jack Burton
Faculty Mentor: Trevor Burrows, History
30. **Waco, Government Law Enforcement, and Religious Freedom Disaster**
Taylor Dawkins
Faculty Mentor: Trevor Burrows, History
31. **Dissenting Voices**
Mycha Donaldson
Faculty Mentor: Trevor Burrows, History

32. **Challenging Patriarchy: Female Agency Through Religious Roles in Ancient Babylonian Societies**
Emily Wilson
Faculty Mentor: Lee Patterson, History
33. **Biblically Sanctioning Slavery: An Analysis of Southern Baptist Convention Rhetoric Aimed Towards Continuing Slavery in the Antebellum South**
Wyatt Stanley
Faculty Mentor: Trevor Burrows, History
34. **Floral Anatomy of Scaphosepalum**
Andrew Brinkschroeder
Faculty Mentor: Barbara Carlswald, Biological Sciences
35. **Parasite Loads of Bluntnose Minnow (*Pimephales notatus*) and Northern Hog Sucker (*Hypentelium nigricans*) Following a Fertilizer Spill in East Central Illinois**
Addison Murphy
Faculty Mentor: Eden Effert-Fanta, Biological Sciences
36. **Is Blood Parasite Load Related to the Ornament Size of Male Common Yellowthroats?**
Logan Dennis
Faculty Mentor: Amberleigh Henschen, Biological Sciences
37. **The Effects of Early Life Stress on Infection Later in Life in House Finches**
Ava Lay
Faculty Mentor: Amberleigh Henschen, Biological Sciences
38. **Population Differences in Corticosterone During Molt in a Wild Songbird**
Milla Helton
Faculty Mentor: Amberleigh Henschen, Biological Sciences
39. **Can Circulating Triglycerides be Used to Predict the Outcome of an Infection?**
Jalyne Long
Faculty Mentor: Amberleigh Henschen, Biological Sciences
40. **Examining Mammalian Visitation Rates to a Novel Object at Urban and Non-Urban Sites throughout Central Illinois**
Mikaila Ek, Nolan Burdett
Faculty Mentor: Elizabeth Peterson, Biological Sciences
41. **Analyzing the COX1 Gene of the Blood Feeding *Culex***
Anneleise Buchter
Faculty Mentor: Antony Oluoch, Biological Sciences
42. **PCR of *Anopheles* Mosquitoes**
Mikhayla Ward
Faculty Mentor: Antony Oluoch, Biological Sciences

43. **Table of Plenty (Oil on Canvas)**
Mikee Montemayor
Faculty Mentor: Alicia Little, Art + Design
44. **The News' Coverage of Name, Image, and Likeness**
Bryce Parker
Faculty Mentor: Ensung Kim, Journalism
45. **Studying H Adsorption on MoS₂ Surfaces During Hydrogen Evolution Reaction Utilizing Electrochemical Quartz Crystal Microbalance**
Atlas Moore
Faculty Mentor: Cesar Ortiz, Chemistry and Biochemistry
46. **Development of an in situ Infrared Spectroelectrochemical Technique to Study Solvation Structures in Non-Aqueous Solutions**
Oliver Thome
Faculty Mentor: Cesar Ortiz, Chemistry and Biochemistry
47. **Thermal Decomposition of PFOA: Insights from Computational Microkinetics**
Genevieve Biberdorf
Faculty Mentor: Steven Pellizzeri, Chemistry and Biochemistry
48. **Synthesis and Binding Study of p-t-butylCalix[4]arene Hosts featuring Pyridine or Quinoline Motifs on the Lower Rim**
Preston Siewert
Faculty Mentor: Zhigang Yan, Chemistry and Biochemistry
49. **Maze Solving Algorithms**
Kenny Warner
Faculty Mentor: Farhadur Reza, Computer Science
50. **Paws and Practice: Mindfulness Podcast**
Hazel Norris
Faculty Mentor: Misty Rhoads, Public Health
51. **Prevalence and Predictors of Disordered Eating Behavior in NCAA Athletes and Non-Athlete College Students**
Brooklynn Greene
Faculty Mentor: Jeffrey Stowell, Psychology
52. **Core Exposure and the Hours (Glazed Stoneware)**
Seth Ulrey
Faculty Mentor: Laura O'Donnell, Art + Design
53. **Sustainable Fashion Infographic**
Aubree Williamson
Faculty Mentor: Samantha Tableriou, Art + Design

54. **Sustainable Fashion Infographic**
Grace Cochrane
Faculty Mentor: Samantha Tableriou, Art + Design
55. **Sustainable Fashion Infographic**
Steven Candra
Faculty Mentors: Samantha Tableriou, Art + Design
56. **Sustainable Fashion Infographic**
Calista Fox
Faculty Mentor: Samantha Tableriou, Art + Design
57. **The Fast Fashion Epidemic**
Elliot Winkleblack
Faculty Mentor: Samantha Tableriou, Art + Design
58. **Orca Ecology (Ceramics)**
Isabella Rose
Faculty Mentor: Laura O'Donnell, Art + Design

ORAL PRESENTATIONS & PERFORMANCES

1:00 p.m. – 3:00 p.m.

1:00 p.m. – 1:50 p.m. Communication Disorders and Sciences

Effingham Room

A Simple Strategy to Increase Children's Use of Mental State Verbs in a Story Retell

Aubrey Burzynski

Faculty Mentor: Laurel Teller, Communication Disorders and Sciences

The Effect of Transcutaneous Auricular Vagal Nerve Stimulation on Post-Stroke Aphasia Patients

Paige Cooper

Faculty Mentor: Aswathy Anakkathil Pradeep, Communication Disorders and Sciences

1:00 p.m. – 1:50 p.m. Music, Medieval and Modern

Lecture Hall, Doudna Fine Arts Center

Modern Unaccompanied Works for Flute and Piccolo

Elizabeth Rickfelder

Faculty Mentor: Rebecca Johnson, Music

West Asian Influence on Music of the Medieval Era

Alene Maxstadt

Faculty Mentor: Janet McCumber, Music

1:00 p.m. – 1:50 p.m. College Enrollment and Engagement

Charleston/Mattoon Room

Unpacking the Gender Divide in College Enrollment at EIU

Alli Hausman

Faculty Mentor: Ensung Kim, Communication and Journalism

Strategic Insights on Student Engagement and Event Attendance

Jessica Roell, Kaylee Unruh

Faculty Mentor: Anna Kochigina, Communication and Journalism

1:00 p.m. – 1:50 p.m. Equality and Law

Arcola/Tuscola Room

Legislative Action and the Future of Racial and Ethnic Inequalities

Rene Beltran, Tara Coleman, Emma Garner, Greta Larson, Keedran Parr

Faculty Mentor: Wade Smith, Sociology, Anthropology, and Criminology

1:00 p.m. – 1:50 p.m. Theatre Showcase

Globe Theatre, Doudna Fine Arts Center

Selection of Pieces by Current Theatre Students

Faculty Mentor: Anne Thibault Geen, Theatre

2:00 p.m. – 2:50 p.m. Biochemistry

Effingham Room

Design and Synthesis of Human Carboxylesterase 1 (CES1)-Specific Fluorogenic Chemical Tools Using Self-Immolative Linkers

Jayla Singleton

Faculty Mentor: Michael Beck, Chemistry and Biochemistry

Illuminating Human Drug Metabolizing Enzymes through Structure-Activity Relationship (SAR) Studies of Carbonate-Based Fluorogenic Chemical Tools

Jemma Booth

Faculty Mentor: Michael Beck, Chemistry and Biochemistry

2:00 p.m. – 2:50 p.m. Global French

Arcola/Tuscola Room

French Beyond Borders: Applying World Language Skills in Unexpected Places

Annabell Force, Thomas Miller, Christian Mpopo, Gana Ndiaye

Faculty Mentor: Jessica Tindira, World Languages and Cultures

2:00 p.m. – 2:50 p.m. Technology and Popular Culture

Charleston/Mattoon Room

AI in News Outlets

Rashaad Jones

Faculty Mentor: Ensung Kim, Communication and Journalism

How Has Social Media Affected Music Genres?

Ryan Goebel

Faculty Mentor: Ensung Kim, Communication and Journalism

Letters of Rule (Game Showcase)

Kieran Bennett

Faculty Mentor: Gabriel Grant, Technology

2:00 p.m. – 2:50 p.m. War: Fear and Honor

1895 Room

Women to Fear: German Women as Perpetrators in the Nazi Concentration Camps

Alex Ward

Faculty Mentor: Sace Elder, History

An Analysis of the Medal of Honor from World War II through the Present

Isabel Spear

Faculty Mentor: Wade Smith, Sociology, Anthropology, and Criminology

2:00 p.m. – 2:50 p.m. Crime and Punishment

Martinsville Room

The Influence of Crime-Related Media on the Perception of Personal Safety

Victoria Duckworth

Faculty Mentor: Jeff Stowell, Psychology

The Mythology of the Deterrent Effects of the Death Penalty: Public Awareness Campaign

Paige Parmenter

Faculty Mentor: Jennifer Stevens, Sociology, Anthropology, and Criminology

**GRADUATE SCHOOL RESEARCH &
CREATIVE ACTIVITY EXPOSITION**

Grand Ballroom, MLK, Jr. Union

3:30 p.m. – 4:30 p.m.

**DISTINGUISHED GRADUATE STUDENT
AWARDS CEREMONY**

Grand Ballroom, MLK, Jr. Union

5:00 p.m.