



URC 2025

Conference Program

17 April 2025

Popp Martin Student Union



Welcome to the 2025 Undergraduate Research Conference at UNC Charlotte! The Undergraduate Research Conference is one of the highlights of each academic year, showcasing research and creative projects completed by undergraduate students at all levels and from across the University. As an R1 research university, UNC Charlotte is committed to engaging undergraduate students in our innovative and high-impact knowledge creation.

Thank you to the Office of Undergraduate Research, Academic Affairs, the Division of Research, the Honors College, and the Levine Scholars Program for helping to organize and sponsor the Undergraduate Research Conference. Worthy of a special thank you are the faculty mentors who support students in their research and creative works. The Undergraduate Research Conference is an important component of our commitment to expand our undergraduate students' opportunities for personal growth and academic success. Students who participate in the Undergraduate Research Conference are rewarded with a rich experience that extends beyond the application of what they learn in the classroom.

Congratulations to all of the undergraduate students presenting at the Undergraduate Research Conference 2025! As students, you read about the products of research in your courses, and you use and benefit from the products of research on a daily basis. But your work with faculty in the field, in their labs, in studios, and in the intellectual exercise that research demands means that you have taken advantage of the best of what a research university offers - you get to participate in the process of discovery. What you learn may eventually end up in someone else's textbook or may lay the groundwork for new technology. Whether that happens or not, you have acquired important knowledge and skills through research. Participating in the Undergraduate Research Conference will serve you well in the future. Many Niner alumni who have gone before you got their start at the Undergraduate Research Conference and are now making a local-to-global impact in their respective fields.

Students, UNC Charlotte is committed to your success! On behalf of the faculty mentors that you work with, I want to add that we are proud of the research and creative endeavors that you are presenting today. We can't wait to see where this opportunity takes you in the future.

Go Niners!

A handwritten signature in black ink, appearing to read 'Jennifer Troyer'.

Jennifer Troyer
Provost and Vice Chancellor for Academic Affairs

URC 2025

Welcome to the 2025 UNC Charlotte Undergraduate Research Conference (URC)! The URC 2025 is brought to you by UNC Charlotte's Office of Undergraduate Research (OUR). The URC reflects one of the goals of the OUR, which is to support undergraduate students through opportunities to communicate their research to the wider community. Thank you to Academic Affairs, the Division of Research, the Honors College, the Levine Scholars Program, the Mu Chapter of the Phi Beta Delta (PBD) Honor Society for International Scholars, the Phi Kappa Phi (PKP) Honor Society, Sigma Xi, and urbanCORE for supporting the URC. Many thanks to the Office of Sustainability and the Sustainable Development Goals (SDG) Student Organization for helping to move the URC to a Zero-Waste event. Aligned with Zero Waste principles, the URC refreshment areas minimize plastic, uses recyclable products, and offers finger foods to cut packaging and emphasize composting.

The URC is a hybrid conference that includes a virtual component. Please visit the URC Symposium site to view the presentations virtually: symposium.foragerone.com/urc2025. The URC would not be possible without the commitment of our UNC Charlotte faculty. The conference has a strong representation from faculty members who participate as research mentors. The URC also represents the dedication of UNC Charlotte's staff and graduate students, who participate as commenters. A big thank you to all of you for your service and dedication to undergraduate research, creativity, and scholarship. Likewise, special recognition goes to the staff in the Office of Undergraduate Research, the URC student leaders, and the conference organizing committee who all played integral parts in the planning for URC 2025. Most of all, please join us in congratulating our undergraduate researchers for their hard work and efforts! At the end of the conference, please complete the URC Evaluation and Feedback form, which is located at: <https://tinyurl.com/URC25evaluation>. Enjoy the URC 2025!

Dr. Erik Jon Byker, Chairperson of the URC 2025 Organizing Committee
and Senior Faculty Fellow in the Office of Undergraduate Research

URC 2025 Organizing Committee Members and Advisory Ambassadors

Dr. Lance Barton, Director, Office of Undergraduate Research
Dr. Sarah Powell, Associate Director, Office of Undergraduate Research
Ms. Sarah Hedrick, Administrative Assistant, Office of Undergraduate Research
Ms. Emma Wakeman, Graduate Assistant, Office of Undergraduate Research
Dr. Sandra Clinton, College of Humanities, Earth, and Social Sciences
Dr. Luke Donovan, College of Health and Human Services
Dr. Abasifreke Ebong, William States Lee College of Engineering
Dr. Cindy Gilson, Honors College
Dr. Tamara Johnson, Director of Engaged Scholarship, urbanCORE
Mr. Adam Justice, College of Arts + Architecture
Dr. Stephanie Norander, Levine Scholars Program
Dr. Michelle Pass, Klein College of Science
Dr. Mohsen Dorodchi, College of Computing and Informatics, URC Advisory Board Ambassador
Dr. Didier Dréau, Klein College of Science, URC Advisory Board Ambassador
Mr. Ryan Harris, J. Murrey Atkins Library, URC Advisory Board Ambassador
Dr. Megan Smith, College of Health and Human Services, URC Advisory Board Ambassador
Undergraduate Student Leaders on the URC Committee:
Shaina Bothra Mara Mcphail Andrew Simmons Rokia Sissoko

URC 2025 Student Leadership Team

A big thank you to the URC 2025 Student Leadership Team for helping with organizing and leading the volunteer efforts for the URC!

Shaina Bothra

OUR Student Leader Intern

Mara Mcphail

URC Lead Organizer

Rokia Sissoko

URC Lead Organizer

Andrew Simmons

URC Lead Organizer

Naami Abbey

Rachel Alexander

Aditi Babar

Taryn Bailey

Yazi Bulluck

Aria Cornwall

Cassandra Domingo

Thu Duong

Kate Dydynski

Leena Ganta

Ryan Giuliani

Madison Hernandez-Concha

Nethika Hettiarachchi

Laasya Machineni

Áine McMahon

Karlee McMullen

Sushmita Nelabhotla

Frida Guerrero Ochoa

Shreyas Raychaudhuri

Mallory Schwarz

Michelle Song

Dikshitha Subramanian

Alli Tuck



Logo Credits: Much thanks to Ashley Legassie (Class of 2024) who designed the new URC logo. Thank you to Nishal Hettiarachchi for creating the URC Student Leadership Team logo. Members of the Student Leadership Team will be wearing t-shirts with this logo during the URC.

Featured Alum Keynote Speaker



Keynote Alum Speaker: Claire Patrick

Claire Patrick was born and raised in Lexington, North Carolina. She graduated Summa Cum Laude from UNC Charlotte in 2022 with a Bachelor of Science in Geography and dual minors in Public Health and Religious Studies, with Geography Honors, and from the University Honors Program.

During her time at UNC Charlotte, she worked on a variety of mixed-methods, community engaged research projects which inspired Claire to pursue a Master of City and Regional Planning at the Georgia Institute of Technology, supported in part by a Phi Kappa Phi (PKP) fellowship. While in graduate school, Claire continued serving on various research projects, interned at an environmental justice non-profit, and studied abroad in India. Claire currently works as an urban planning consultant at WSP in Atlanta, Georgia.

Thank you to Supporters of the URC!

URC Poster Printing 	URC Organizers 	Community-Engaged Research 	Honors College 
Mu Chapter of Phi Beta Delta (PBD) 	Phi Kappa Phi (PKP) 	Student Leaders 	Sigma Xi 

URC 2025 Schedule

Monday, April 14, 2025

8 AM: The URC 2025 Symposium system opens to the public. University community members are invited to comment on the presentations. Registration is required before comments can be submitted. Please remember our commitment to advancing a culture and community of mutual respect at UNC Charlotte; refrain from negative comments.

Thursday, April 17, in the Popp Martin Student Union

8:30 AM: URC 2025 Registration opens outside of the 340 Ballroom

9:15 AM – 10 AM: Opening Ceremony and Keynote Address in the 340 Ballroom

Dr. Erik Jon Byker, Chair of URC 2025

Tatyana Torres, Sustainable Development Goals (SDG) Club

Dr. John Daniels, Vice Chancellor for Research, Division of Research

Dr. Lance Barton, Director of the Office of Undergraduate Research (OUR)

Shaina Bothra, Introduction of Keynote Speaker

Claire Patrick , Keynote Speaker, UNC Charlotte Alum

*Thank you to Honors College and the OUR for sponsoring the Keynote

10:15 AM – 11:15 AM: Concurrent Presentations Session A

11:30 AM – 12:30 PM: Concurrent Presentations Session B

12:45 PM – 1:45 PM: Concurrent Presentation Session C

Creative Arts and Poster Research Presentation Sessions in the 340 Ballroom

Oral Presentations and Panel Sessions in the 200 Level Rooms

Applied and Health Sciences – Room 261

Arts, Design, & Engineering - Room 262

Humanities - Room 263

Psychological and Social Sciences - Room 265

STEM: Biological Sciences I - Room 266

STEM: Biological Sciences II - Room 267

2 PM – 3 PM: Closing Ceremony in the 340 Ballroom**

Dr. Erik Jon Byker, Chair of URC 2025

Claire Patrick, Alum Speaker with Closing Reflections

Dr. Sarah Powell, Associate Director of OUR

Emma Wakeman, OUR Graduate Assistant and Scholar

Praneeta Veluri & Courtney-Grace Neizer, *ETHEL* Journal

Honor Society Representatives

Recognitions

**At the conclusion of the Ceremony, further instructions about group pictures may be provided. Thank you to the University Communications Office for providing photography for the URC 2025.

3 PM – 4 PM: Dessert reception to follow on the Third Floor of the Popp Martin Student Union



The *ETHEL Undergraduate Research Journal* stands for Excellence, Transformation, Honor, Equity, and Leadership. The journal was established to provide undergraduate students with a platform to share their research with the broader community. Recognizing the need for an inclusive platform at UNC Charlotte, *ETHEL* highlights work from across disciplines, fostering interdisciplinary dialogue and showcasing the diversity of student scholarship. *ETHEL*'s very first issue is coming out this semester! Stay tuned on our website at etheljournal.com and follow us on Instagram @ethel_journal for updates.

Editorial Board Members:

Editor-in-Chief: Praneeta Veluri

Associate Editor-in-Chief: Mia Huffman

Podcast Director: Courtney-Grace Neizer

Web & Media Developer: Arnav Sareen

Social Media Director & Lead Designer: Angelika Santero



The URC is proud to be moving toward a Zero Waste event at UNC Charlotte. In coordination with Associate Vice Chancellor Cavenny-Cox, the Office of Sustainability, and the Sustainable Development Goals (SDG) Student Organization, the refreshment and reception areas of the URC will include compost and recycling bins to promote sustainability and divert as much waste as possible from going to the landfill. Zero Waste promotes recycling and compost to reduce landfill waste.



Oral and Panel Presentations: Applied and Health Sciences Room 261

Note: Presentations can be viewed on the URC Symposium site. Please visit:
symposium.foragerone.com/urc2025 and search by author's name or presentation title.

- 10:15 AM:** *Fostering Research Engagement in Nursing: Exploring Barriers, Early Exposure, and the Impact of Doctoral Education* by Jalen London;
Mentor: Susan Lynch, College of Health and Human Services
- 10:30 AM:** *Exploring the Relationship Between BMI, Age, and HbA1c in Active Older African American Women* by Samantha Webb;
Mentor: Trudy Moore-Harrison, College of Health and Human Services
- 10:45 AM:** **BREAK**
- 11:30 AM:** **Panel Presentation:** *Thriving Together: Sustainable Solutions for Women's Health* organized by Meenu Murugan, Divya Agarwal, and Krish Karri;
Mentor: Erik Jon Byker, Office of Undergraduate Research
- 12:30 PM:** **BREAK**
- 12:45 PM:** *High-Resolution Mapping of Human Activity Zones for Understanding Malaria Transmission in Southern Africa* by Natasha Kroll and Anupam Sharma;
Mentor: Yao Li, College of Humanities & Earth and Social Sciences
- 1:00 PM:** *Exercise is Medicine: Enhancing p53 Tumor Suppression through the AMPK Pathway* by Naiya Roberts; Mentor: Ellen Wisner, College of Health and Human Services
- 1:15 PM:** *Empowering Change: The Evolution of UNC Charlotte's Sustainable Development Goals Club* by Isabelle Kleckner and Mackenzie Smart;
Mentor: Erik Jon Byker, Cato College of Education

Oral Presentations: Arts, Design, & Engineering

Room 262

- 10:15 AM:** *The Great Organelle Hunt: Game-Based Learning for Cellular Biology* by Devin Cho; Mentor: Jessica 'JB' Burke, College of Arts + Architecture
- 10:30 AM:** *Art and History of Marginalized Communities: Marc Chagall and Robert Mapplethorpe* by Alastor Gilbert; Mentor: Malin Pereira, Honors College
- 10:45 AM:** *Who Is This Genius Child?* by Monisha Moore; Mentor: Jay Grymes, College of Arts + Architecture
- 11:00 AM:** **BREAK**
- 11:30 AM:** *Solar-Powered Self-Sustainable UAV Communication Networks with Fixed-Wing UAVs* by Mohammad Hasan and Chandra Geddam; Mentor: Ran Zhang, William States Lee College of Engineering
- 11:45 AM:** *Gamification in Early Educational Learning* by Kathryn Russell; Mentor: Jessica 'JB' Burke, College of Arts + Architecture
- 12:00 PM:** *The Effectiveness of Music Therapy for Treatment of Autism Spectrum In Children* by Mahogany Williams; Mentor: Jay Grymes, College of Arts + Architecture
- 12:15 PM:** *Women Composers of the Classical Era* by Ali Chrisley; Mentor: Jay Grymes, College of Arts + Architecture
- 12:30 PM:** **BREAK**
- 12:45 PM:** *Incapable of Joyful Expression? The Bass Clarinet as a Solo Instrument* by Sufian Azar; Mentor: Jay Grymes, College of Arts + Architecture
- 1:00 PM:** *American 19th Century Songs* by Andrew Williams; Mentor: Jay Grymes, College of Arts + Architecture
- 1:15 PM:** *UAV Space-Air-Ground Integrated Network for Autonomous Land Vehicle Navigation* by Gabriel Almodovar; Mentor: Miao Wang, William States Lee College of Engineering
- 1:30 PM:** *Machine Learning Future Drive Towards Enhanced Learning* by Mujaba Ali Khan and Hafsa Konain; Mentor: Erik Jon Byker, Office of Undergraduate Research

Oral Presentations: Humanities

Room 263

- 10:15 AM:** *A Tale of Two Cities Bosnian War Aid Discrepancy in the Face of Occupancy* by Berina Rucic; Mentor: Jill Massino, College of Humanities & Earth and Social Sciences
- 10:30 AM:** *Tourism, Security, and Sacred Space at Bethany Beyond the Jordan* by Olivia Stockwell; Mentor: Eric Hoenes del Pinal, College of Humanities & Earth and Social Sciences
- 10:45 AM:** *Women and the Production of 19th Century Knowledge* by Leila Hachani; Mentor: Alan Rauch; College of Humanities & Earth and Social Sciences
- 11:00 AM:** *A Conversation about Conversion: Catawba Religious and Cultural Evolution to Mormonism and the Mormon Conversion of the Catawba Nation* by Neha Panajkar; Mentor: Peter Ferdinando, College of Humanities & Earth and Social Sciences
- 11:15 AM:** **BREAK**
- 11:45 AM:** *Bondage to Business in the Bull City: Booker T. Washington and the National Negro Business League's Impact on the Development of Black Capitalism in Durham and Other NC Cities* by Lee Queveon Tate; Mentor: Willie Griffin, College of Humanities & Earth and Social Sciences
- 12:00 PM:** *We Have Invented Nothing: Prehistory, Modernity, and Cognition* by Celia Castaldo; Mentor: Jae Emerling, College of Arts + Architecture
- 12:15 PM:** **BREAK**
- 12:45 PM:** *Chimeras, Discords, and Altercations: O'odham Motivations Behind the Uprising of 1751* by Cayla Avant; Mentor: Carol Higham, College of Humanities & Earth and Social Sciences
- 1:00 PM:** *Translation Project: Literary Experience by Alfonso Reyes* by Ysabelle Blaine; Mentor: Donald Cross; College of Humanities & Earth and Social Sciences

Oral Presentations: Psychological and Social Sciences

Room 265

- 10:15 AM:** *Misogynoir and Psychological Distress in Black Women* by Gabriella Boutte; Mentor: Amy Canevello, College of Humanities & Earth and Social Sciences
- 10:30 AM:** *Taboo of Death: How Does the Sociological Approach to Religion interconnect with Death Perception?* by MacKenzie Kirby; Mentor: Diane Zablotsky, College of Humanities & Earth and Social Sciences
- 10:45 AM:** *Investigation of Burial Sites of enslaved Africans in Charlotte, North Carolina* by Mara McPhail; Mentor: Emily Makas, College of Arts + Architecture
- 11:00 AM:** *Bridging the Gap: Enhancing Support for Hispanic Students in Charlotte-Mecklenburg Schools* by Claire Broome; Mentor: Allison Stedman, College of Humanities & Earth and Social Sciences
- 11:15 AM:** **BREAK**
- 11:30 AM:** *Inclusive Language Evolution in Spanish: Exploring Institutional Impact* by Saniya Gabriel; Mentor: Allison Stedman, College of Humanities & Earth and Social Sciences
- 11:45 AM:** *Opportunities for Relevant Work Experience: Perceptions of Undergraduate Psychology Students* by Ethan Wilkins; Mentor: Kim Buch, College of Humanities & Earth and Social Sciences
- 12:00 PM:** *Identifying Changes in Communication Consultant Confidence Across the Years* by James Meanor, Shreya Sridher, Sridula Vardireddy, and Kaitlin Ferguson; Mentor: Heather Bastian, University College
- 12:15 PM** *Weather Communications: The Relationship between Generations and Information* by Zachary Tolman; Mentor: Terry Shirley, College of Humanities & Earth and Social Sciences

Oral Presentations: STEM- Biological Sciences I Room 266

- 10:15 AM:** *Examining beneficial fungal partnerships in wild and cultivated soybean* by Kody Angell; Mentor: Bao-Hua Song, Klein College of Science
- 10:30 AM:** *The role of macrophage-inducible C-type lectin, Mincle in staphylococcal osteomyelitis* by Nicole Azar; Mentors: Erin Mills, Ian Marriott, and M. Brittany Johnson, Klein College of Science
- 10:45 AM:** *Substance P and IFN- γ 's Role in Murine Osteoblast Differentiation* by Thomas Hoggarth; Mentor: M. Brittany Johnson, Klein College of Science
- 11:00 AM:** *Role of SEA complex in micro-autophagy* by Shehdan Abbasi; Mentor: Richard Chi, Klein College of Science
- 11:15 AM:** **BREAK**
- 11:30 AM:** *Unveiling Novel Cargo in the AP-3 Pathway* by Brianna Collado-Almonte
Mentor: Richard Chi, Klein College of Science
- 11:45 AM:** *Genetic diversity of HLA pseudogenes in Amerindian populations: copy number variation and population dynamics* by Asrin Jama; Mentor: Danillo Augusto, Klein College of Science
- 12:00 PM:** *Exploring allele frequencies and copy number variation of HLA pseudogenes in Amerindian Populations* by Jana Obeid; Mentor: Danillo Augusto, Klein College of Science
- 12:15 PM:** *Experimental Evolution of Vesicular Stomatitis Viruses* by Charlotte Johnstone
Mentor: Valery Z. Grdzlishvili, Klein College of Science
- 12:30 PM:** **BREAK**
- 12:45 PM:** *Exploring the Dispersal of Fungal Species by Bees* by Taylor Yonemura; Mentor: Morgan Carter, Klein College of Science
- 1:00 PM:** *FLAVi 2: Increasing Efficiency and Accessibility of Flaviviridae Genome Annotation* by Cayden Jacobsen; Mentor: Denis Jacob Machado, College of Computing and Informatics

Oral Presentations: STEM- Biological Sciences II

Room 267

- 10:15 AM:** *Identify Chromosomal Instability in Prostate Cancer Cells with Acquired Chemoresistance* by Yara Kayali; Mentor: Junya Tomida, Klein College of Science
- 10:30 AM:** *Identifying REV7 Domain/Sites Regulating p53 Protein Stability* by Skyler Kuncik; Mentor: Junya Tomida, Klein College of Science
- 10:45 AM:** *Developing an Oral Tolerization Therapy for Multiple Sclerosis Using Genetically Engineered Soybeans Expressing MOG-Sigma1 Fusion Protein* by Meenu Murugan, Mentors: Daniel Nelson and Kenneth Piller, Klein College of Science
- 11:00 AM:** *Development of Thiazolo[5,4-d]thiazole Photosensitizers for Photodynamic Therapy and for Photoinactivation of Bacteria* by Nick Eberwein; Mentor: Michael Walter, Klein College of Science
- 11:15 AM: BREAK**
- 11:30 AM:** *MHV Induced Tau Hyperphosphorylation In The Hippocampus* by Erik Sopiotti; Mentor: Kristen Funk, Klein College of Science
- 11:45 AM:** *Analyzing the Response of the Immune System in Males vs Females that Occurs after Mouse Coronavirus Infection* by Luke Williams; Mentor: Kristen Funk, Klein College of Science
- 12:00 PM:** *Efficacy of MVA-MUC1 Vaccine in MUC1.Tg Mouse Model of Pancreatic Ductal Adenocarcinoma* by Mauricio Lopez; Mentors: Pinku Mukherjee and Arjun Tiwari, Klein College of Science
- 12:15 PM:** *CXCL12 and CXCL4 Chemokine Heterodimerization and CXCR4 Signaling in Breast Cancer Cells* by Zoe Vette; Mentor: Didier Dréau, Klein College of Science
- 12:30 PM: BREAK**
- 12:45 PM:** *Reactive oxygen species and NLRP3 Inflammasome alter macrophages and inflammation within the breast tumor microenvironment* by Shely Acosta; Mentor: Didier Dréau, Klein College of Science
- 1:00 PM:** *Temporal Variability of Viruses During Freshwater Harmful Algal Bloom* by Heven Siyum; Mentor: Elaine Luo, Klein College of Science
- 1:15 PM:** *Predicting Protein Contributions to Carbon Fixation in Autotrophic Freshwater Microbes Using Statistical and Machine Learning Models* by Courtney-Grace Neizer; Mentor: Elaine Luo, Klein College of Science

Creative Arts Presentations

340 Ballroom

Note: Presentations can be viewed on the URC Symposium site. Please visit: symposium.foragerone.com/urc2025 and search by author's name or presentation title.

Session A: 10:15am - 11:15am

Easel 91 - *A Path Shared* by Morgan Alexander; Mentor: Lydia Thompson, College of Arts + Architecture

Easel 92 - *Medical Illustration Surgical Study after Maclise* by Strong Fairlight; Mentor: Jessica 'JB' Burke, College of Arts + Architecture

Easel 93 - *Organic Abstraction* by Ava Weaver; Mentor: Jessica 'JB' Burke, College of Arts + Architecture

Session B: 11:30am - 12:30pm

Easel 94 - *Visualizing Water Contamination Through Art* by Balmore Corvera; Mentor: Missy Eppes, College of Humanities & Earth and Social Sciences

Easel 95 - *Midscape* by Maya Hutagalung; Mentor: Maja Godlewska, College of Arts + Architecture

Poster Research Presentations

340 Ballroom

Note: Presentations can be viewed on the URC Symposium site. Please visit: symposium.foragerone.com/urc2025 and search by author's name or presentation title.

Session A: 10:15am - 11:15am

Easel 100 - *Climate Change and Infectious Diseases* by Eleanor Ahdieh;
Mentor: Jack Scheff, College of Humanities & Earth and Social Sciences

Easel 101- *Bridging Employment and Childcare Gaps: A Research Project on Charlotte's Growing Community* by Katie Benitez Diaz; Mentor: Stephanie Potochnick, College of Humanities & Earth and Social Sciences

Easel 102 - *Investigating and Comparing Sustainable Development Goal #13 in Germany and the United States* by Russell Beyer, David Henriquez, and Lama Abelraham, Mentor: Erik Jon Byker and Benjamin Ade-Thurow, Cato College of Education

Easel 103 - *Assessing Neuronal DNA Damage Induced by CD8+ T Cells During Viral Infection Using an Optimized Comet Assays* by Aayush Bhatt; Mentor: Kristen Funk, Klein College of Science

Easel 104 - *A Shape-Morphing Airfoil Using Nitinol Actuation for UAV and Small-Scale Airplanes* by Haryshwa Bipin; Mentor: John Hall, William States Lee College of Engineering

Easel 105 - *Turning Research into Networking Opportunities* by Shaina Bothra; Mentor: Erik Jon Byker, Office of Undergraduate Research

Easel 106 - *Matrix Effects on ZNR Removal of PFAS* by Maren Clark; Mentor: Jordan Poler, Klein College of Science

Easel 107 - *Using an LLM to Enhance Source Code Documentation Generation in Doxygen* by Robert Craig; Mentor: Yonghong Yan, College of Computing and Informatics

Easel 108 - *Changes in Political Animus Among College Students During the 2024 Election* by Natalie Doerfler; Mentor: Jason Giersch, College Humanities & Earth and Social Sciences

Easel 109 - *Investigation of the chemical properties responsible for antibacterial activity of the stingless bee honey from Costa Rica* by Natalya Drapievskaya, Noor Elhalabi, and Kaustubh Tiwari; Mentor: Joanna Krueger, Klein College of Science

Easel 110 - *Efficacy of Anterior Heel Wedge at Reducing Knee Flexion Contracture after Total Knee Arthroplasty: A Pilot Investigation* by Gracyn Dwyer; Mentor: Abbey Thomas, College of Health & Human Services

Easel 111 - *A Deep Dive into Singular Value Decomposition's Utility for Noise Reduction in Audio Signals and Language Processing* by Julian Evan; Mentor: Xingjie Li, Klein College of Science

Easel 112 - *Exploring Rhizopus and Mycetohabitans Relationships Through Genome Sequencing* by Sara Field; Mentor: Morgan Carter, Klein College of Science

Easel 113 - *From Science to Civil Rights: Examining Teacher's Experiences Conducting Site-Based Professional Development* by Kendall Fording and Madelyn Torkelson; Mentor: Scott Gartlan, College of Humanities & Earth and Social Sciences

Easel 114 - *Investigating and Comparing Sustainable Development Goal #1 in Germany and the United States* by Daniel Gamez, Aya Zedan, and Ashley Antonio; Mentor: Erik Jon Byker and Benjamin Ade-Thurow, Cato College of Education

Easel 115 - *Exploring Motivational Drivers of Physical Activity Engagement through Qualitative Coding of Physical Activity Related Social Media Posts* by Jaidyn Graham; Mentor: Sara Levens, College of Humanities & Earth and Social Sciences

Easel 116 - *Dance and Communities: Scouts and Guides* by Naiya Graham; Mentor: Kaustavi Sarkar, College of Arts + Architecture, Honors College

Easel 117 - *Assessing the Writing Quality & Cohesion of Mathematical Writing from a Summer Intervention* by Kylie Greenelsh; Mentor: Madelyn Williams-Colonnese, Cato College of Education

Easel 118 - *Patch Antenna Miniaturization via Ferromagnetic Nanoparticle Metamaterial Substrate Integration* by Ryan Guthrey; Mentor: Andrew Willis, William States Lee College of Engineering

Easel 119 - *An Analysis of the Coins Found in the Necropolis of Sa Mitza Salida, Masullas* by Emma Harper; Mentor: Luca Lai, College of Humanities & Earth and Social Sciences, Honors College

Easel 120 - *Using AI Generated Humor to Boost Student Engagement during Assessments* by Krish Iyer; Mentor: Razvan Bunescu, College of Computing and Informatics

Easel 121 - *Analyzing Total Suspended Solids (TSS) in Urban Stormwater and Beaver Ponds* by Safiyyah James; Mentor: Sandra Clinton, College of Humanities & Earth and Social Sciences

Easel 122 - *Mapping the Impacts of Transportation Infrastructure Development on Health Outcomes in Charlotte* by Catherine Jones; Mentor: Fushcia Hoover, College of Humanities & Earth and Social Sciences

Easel 123 - *Data Collection and Preparation of Molecular Datasets for Studies of Biomedicine* by Venus Kajangu; Mentor: Daniel Janies, College of Computing and Informatics

Easel 124 - *Extracting Image Descriptions from Papers* by Patrick Kengsoontra; Mentor: Razvan Bunescu, College of Computing and Informatics

Easel 125 - *A Radiation Treatment Planning System from a Browser* by Adrian Khlim; Mentor: Yonghong Yan, College of Computing and Informatics

Easel 126 - *Investigating and Comparing Sustainable Development Goal #3 in Germany and the United States* by Mikayla King, Teagen Johnson, and Daniela Betancourt; Mentor: Erik Jon Byker and Benjamin Ade-Thurow, Cato College of Education

Easel 127 - *Public Perception of Reproductive Rights* by Ana Krstanovic; Mentor: Erin Basinger, College of Humanities & Earth and Social Sciences

Easel 128 - *Gene Therapy: How Effective Is It?* by Gaella Malembi; Mentor: Aimee Smith, College of Humanities & Earth and Social Sciences

Easel 129 - *Investigating and Comparing Sustainable Development Goal #16 in Germany and the United States* by Emily McDaniel, Jayvone Green, and Sam Trajano; Mentor: Erik Jon Byker and Benjamin Ade-Thurow, Cato College of Education

Easel 130 - *Biodiversity in Urbanizing Forests: An Assessment of Vertebrate Wildlife at UNC Charlotte* by Hannah Meador; Mentor: Jennifer Warner, Klein College of Science

Easel 131 - *Connecting Erosion, Landscape Evolution, and Tourism* by Madeline Montemurro; Mentor: Missy Eppes, College of Humanities & Earth and Social Sciences

Easel 132 - *Performance Evaluation of Bifacial Solar Photovoltaic Modules with Various Ground Materials* by Michael Murphy; Mentor: Jaewon Oh, William States Lee College of Engineering

Easel 133 - *Synthesis of Light-Activated Nanoparticles for Elimination of Bacteria* by Atqiya Nafisa; Mentor: Juan Vivero-Escoto, Klein College of Science

Easel 134 - *Palliative Care Readiness (PALCARE) Tool for Older Adults with Cancer and Their Family Caregivers: Development and Validation* by Savannah Norris; Mentor: Jyotsana Parajuli, College of Health & Human Services

Easel 135 - *Linguistic Inequity in Schools: Marshallese Student Language Practices and Educational Outcomes* by Lori Aine O'Healy; Mentor: Elise Berman, College of Humanities & Earth and Social Sciences

Easel 136 - *Investigating and Comparing SDG #6: Clean Water and Sanitation in Germany and the United States* by Ginny Ohlhaut, Ann Maupin, and Caleb Reid
Mentor: Erik Jon Byker and Benjamin Ade-Thurow, Cato College of Education

Easel 137 - *TickBusters: Investigating Tick-Borne Diseases in North Carolina and Brazil* by Wynn Oo; Mentor: Rafael Felipe Da Costa Vieira, College of Health & Human Services

Easel 138 - *The Impact of Financial and Racial Disparities on the Quality of Life Experienced by Young Populations Living with Sickle Cell Disease* by Khadija Ouedraogo; Mentor: Aimee Smith, College of Health & Human Services

Easel 139 - *Improving Electroporation Protocols to Effectively Transform a Gram Negative Bacterium* by MyAsia Owens; Mentors: Ruth Wright and Morgan Carter, Klein College of Science

Easel 140 - *Carbonyl Redox Chemistry: A Versatile Platform to Access Rigid Polycyclic Frameworks with Defined Substituent Patterns* by Zachary Perry, Nicholas Brace, and Nikita Spambetov; Mentor: Markus Etzkorn, Klein College of Science

Easel 141 - *Geolocation Authentication* by Erica Phann; Mentor: Heather Lipford, College of Computing and Informatics

Easel 142 - *Building Defiance: Amaza Lee Meredith's Architectural Resistance* by Mo Pirela; Mentor: Emily Makas, College of Arts + Architecture

Easel 143 - *Serial Evaluation of Knee Cartilage Using Ultrasound in Athletes* by Kacey Podielsky; Mentor: Abbey Fenwick, College of Health & Human Services

Easel 144 - *Spatial Patterns of Climate Justice Hotspots in Mecklenburg County* by Karen Regalado; Mentor: Fushcia-Ann Hoover, College of Humanities & Earth and Social Sciences

Easel 145 - *The Germline Controls HSP-90 Chaperone Expression During Stress and Aging; Cell Nonautonomously in Caenorhabditis Elegans* by Robbie Richmond;
Mentor: Patricija Van Oosten-Hawle, Klein College of Science

Easel 146 - *Bacteriophages: The Future in Everywhere and Anywhere* by Jessica Robles Gonzalez and Lily McGuirt; Mentors: Michelle Pass and Sharon Bullock, Klein College of Science

Easel 147 - *Utilizing ZNR for Effective Water Purification* by Adrian Rodriguez;
Mentor: Jordan Poler, Klein College of Science

Easel 148 - *TickBusters: Investigating Tick-Borne Diseases in North Carolina and Brazil* by Marielle Rosalez; Mentor: Rafael Vieira, College of Health & Human Services

Easel 149 - *The Influence of Modal Mineralogy and Grain Size on The Coefficient of Thermal Expansion (CTE) in North Carolina Aggregates* by Davis Rowe;
Mentor: Valerie Reynolds, College of Humanities & Earth and Social Sciences

Easel 150 - *Utilizing Atomistic Simulations to Investigate the Thermal and Ionic Transport in Superlattice Perovskite Cells* by Nizam Sait; Mentor: Xiang Chen, William States Lee College of Engineering

Easel 151 - *Interactive Learning and Assessment Modules for Early CS Learning* by Jacob Sasser and Brandon Tiseo; Mentor: Kalpathi Subramanian, College of Computing and Informatics

Easel 152 - *The Use of Games to Train Cognitive Flexibility: A Proposal of Mechanics and Interviews Among Therapists and Clients* by Nikhil Saxena; Mentor: Doug Markant, College of Humanities & Earth and Social Sciences

Easel 153 - *Geologic Mapping and Illustration in the Atlantic Ocean Basin* by Erin Sescourka; Mentor: Missy Eppes, College of Humanities & Earth and Social Sciences

Easel 154 - *Supporting the Socioemotional Needs of Unhoused Black Students in an Urban School District* by Emma-Leigh Stoll; Mentor: Susan Harden, Cato College of Education

Easel 155 - *Investigating and Comparing Sustainable Development Goal #5 in Germany and the United States* by Aiden Terrick, Lucy Weaver, and Tati Greer;
Mentors: Erik Jon Byker and Benjamin Ade-Thurow, Cato College of Education

Easel 156 - *Mapping Trash: Improving Environmental Quality in Mecklenburg County Through a Community Partnership* by Dylan Toh; Mentor: Youngseob Eum, College of Humanities & Earth and Social Sciences

Easel 157 - *How Perceptual Variability Impacts the Communication of Probabilities with Icon Arrays* by Isabella Tsai and Ata Yilmazemre; Mentor: Douglas Markant, College of Humanities & Earth and Social Sciences

Easel 158 - *Exploring the Neural Correlates of Immersion in Virtual Reality* by Ata Yilmazemre; Mentor: Mark Faust, College of Humanities & Earth and Social Sciences

Easel 159 - *Dragonfly Larvae Distribution in Ponds in the Charlotte-Mecklenburg Region* by Mckenna Zelna; Mentor: Sandra Clinton, College of Humanities & Earth and Social Sciences

Session B: 11:30am - 12:30pm

Easel 100 - *Aggregating Data on Viral Hosts of H5N1 in North America* by Rachel Alexander; Mentor: Daniel Janies, College of Computing and Informatics

Easel 101 - *Pace and Perceive: Using the DAE to understand International Student Attitudes towards Phishing Scams* by Eesha Alla; Mentor: Cori Faklaris, College of Computing and Informatics

Easel 102 - *The Effect of 4-Hydroxy-TEMPO on the Photochromism of Thiazolothiazole films* by Aboud Alshatat; Mentor: Michael G. Walter, Klein College of Science

Easel 103 - *Explainable Distributed Machine Learning for Outlier Detection* by Rowan Amanna; Mentor: Qiong Cheng, College of Computing and Informatics

Easel 104 - *Genetic Diversity of HLA and KIR genes in the Ashanti Tribe of Ghana* by Ishmael Ayalingo; Mentor: Danillo Augusto, Klein College of Science

Easel 105 - *Reddit (as) Therapy?: Online Disclosures and Help-seeking Among Intimate Partner Violence Survivors* by Madilyn Blackmon and Carrie Gorman; Mentor: Jennifer Langhinrichsen-Rohling, College of Humanities & Earth and Social Sciences

Easel 106 - *Lyapunov Functions in Deep Reinforcement Learning* by Craig Bowman; Mentor: Scott Kelly, William States Lee College of Engineering

Easel 107 - *Exploring the role of Tumor-Intrinsic Interferon Signaling in Chemotherapy-Induced Pancreatic Cancer Cell Death* by Kaitlyn Bruno; Mentor: Youjun Wu, Klein College of Science

Easel 108 - *Implementation Facilitators and Barriers of School-Based Health Centers* by Yazi Bulluck; Mentor: Victoria Scott, College of Health & Human Services

Easel 109 - *Using Art to Communicate Landslide Risks in Puerto Rico* by Rose Casillas; Mentor: Missy Eppes, College of Humanities & Earth and Social Sciences

Easel 110 - *Osteobiography and the Ethical Dilemmas of Skeletal Collections* by Mayah Clark; Mentor: Sara Juengst, College of Humanities & Earth and Social Sciences

Easel 111 - *Shinbutsu Bunri: The Material Effects of Forced Shinto and Buddhist Separation on Japanese Religious Culture* by Jack Corning; Mentor: Janna Shedd, College of Humanities & Earth and Social Sciences

Easel 112 - *Comparison of Voltage Sensitive Asymmetric Thiazolothiazole Dyes in Cellular Imaging Applications* by Charlie Darby and Joy Amuzu; Mentor: Michael G. Walter, Klein College of Science

Easel 113 - *The Impact of Soil Characteristics on Biodiversity: A Visual Depiction* by Nate Davis; Mentor: Missy Eppes, College of Humanities & Earth and Social Sciences

Easel 114 - *Deploying Fast Centrality Algorithms in Gephi* by Reece Devenney; Mentor: Erik Saule, College of Computing and Informatics

Easel 115 - *Investigating and Comparing SDG #2: Zero Hunger in Germany and the United States* by Madiouma Diawara, Evan Lewis, and John Bonilla; Mentors: Erik Jon Byker and Benjamin Ade-Thurow, Cato College of Education

Easel 116 - *Optimizing fungal-bacterial association protocol to study plant health* by Paola Diaz-Matamoros; Mentor: Morgan Carter, Klein College of Science

Easel 117 - *Collecting and Synthesizing Academic Knowledge on Fat Liberation and Menopause* by Wissal Dkhir; Mentor: Margaret Quinlan, College of Humanities & Earth and Social Sciences

Easel 118 - *Deep Learning for Adaptive Gait Rehabilitation: Integrating sEMG, IMUs, and Pose Keypoint Data in FES* by Eric Fackelman; Mentor: Minhaj Alam, William States Lee College of Engineering

Easel 119 - *Investigating and Comparing SDG #1: No Poverty in Germany and the United States* by Robbie Flanagan, Sa'Rya Parker, and Ahmed Abdullatef; Mentor: Erik Jon Byker and Benjamin Ade-Thurow, Cato College of Education

Easel 120 - *Stress-Specific Regulation of Yeast BiP Through Multisite Phosphorylation* by Erica Flores; Mentors: Chathura Paththamperuma and Andrew W. Truman, Klein College of Science

Easel 121 - *Novel Solvers for Sparse Generalized Linear Models* by Sindhu Gadiraju; Mentor: Christian Kuemmerle, College of Computing and Informatics

Easel 122 - *Investigating and Comparing Sustainable Development Goal #11 in Japan and the United States* by Andy Garcia and Hinata Asada; Mentor: Erik Jon Byker, Cato College of Education

Easel 123 - *Interpreting Puerto Rico's Surficial Geology Through Art: A Visual Exploration of Landscape and Culture* by Josue Guevara; Mentor: Missy Eppes, College of Humanities & Earth and Social Sciences

Easel 124 - *Data Visualization for the CS1 Compendium for Improving Personalized Education* by Kento Hopkins; Mentor: Razvan Bunescu, College of Computing and Informatics

Easel 125 - *Phylogeny as an Indicator of Gene Transfer in Bacteriophages* by Harrison Huffmon, Anngiselle Vallejo, Zeel Desai, and Nathaniel Foret; Mentor: Tonya Bates, Klein College of Science

Easel 126 - *Filtration of PFAS through Ion Exchange Resins and Tetrachloride Metals* by Rachel Irving; Mentor: Mei Sun, William States Lee College of Engineering

Easel 127 - *Extracting Nanocellulose Fibers from Plant Matter to Make Biocomposites* by Bhagavanth Mehul Jammannagari; Mentor: Roger Tipton, William States Lee College of Engineering

Easel 128 - *Reclaiming Fat and Disabled: Discourses of Fatness and Disability in Women's Health* by Grayce Jeter; Mentor: Margaret Quinlan, College of Humanities & Earth and Social Sciences

Easel 129 - *The Problem Is We Call It A Problem: College Level Students With ADHD and Higher Order Writing* by Katelyn Kerr; Mentors: Katie Garahan and Mark Hall, College of Humanities & Earth and Social Sciences

Easel 130 - *Serial Ultrasound Imaging of Ankle Cartilage in Athletes* by Samuel Limparis; Mentor: Abbey Thomas Fenwick, College of Health & Human Services

Easel 131 - *Not Sold on AlphaFold? An Exploration of Unknown Protein Functions Using New AI* by Lily McGuirt, Kaustubh Tiwari, Sarah Wigren, Jessica Robles Gonzalez, Skylar Godwin, Simran Bali, Adrienna Fanelli, and Bryson Schreiner; Mentors: Ellen Wisner and Tonya Bates, Klein College of Science

Easel 132 - *Exploring Geomorphic Formations Through Artistic World Building* by Robert McLaughlin; Mentor: Missy Eppes, College of Humanities & Earth and Social Sciences

Easel 133 - *Political Economy of Policing* by Sarah Nti; Mentor: Martin Shuster, College of Humanities & Earth and Social Sciences

Easel 134 - *It's a slip and slide down there: Influencing Fertility; The Role of TikTok in Shaping Public Perceptions of Fertility Supplements* by Erin Oakley and Alissa Mok; Mentor: Margaret Quinlan, College of Humanities & Earth and Social Sciences

Easel 135 - *Optimization of Laser-Induced Fluorescence for Frequency-Encoded Detection* by Brinda Patel; Mentor: Laura Casto-Bogges, Klein College of Science

Easel 136 - *Investigation of Post Translational Modifications on Copper Chaperone for Superoxide Dismutase* by Colin Raddant; Mentor: Eva Ge, Klein College of Science

Easel 137 - *Pavement Marking Detection from LiDAR Data* by Kevin Richard; Mentor: Depeng Xu, College of Computing and Informatics

Easel 138 - *The Structural and Functional Dynamics of the Major Capsid Protease Fusion Protein* by Shamanasia Richardson, Daune Signorelli, Joseph Kim, and Heven Siyum; Mentors: Ellen Wisner and Tonya Bates, Klein College of Science

Easel 139 - *3D Printing of Fully Integrated Flexible Humidity Sensor for Long-Term Health Monitoring* by Prabhtej Sahni; Mentor: Erina B. Joyee, William States Lee College of Engineering

Easel 140 - *Sandham's Perambulations of a Bee and a Butterfly: Introducing Nature to Young Readers in Early 19th Century* by Abeer Saleem Naznin; Mentor: Alan Rauch, College of Humanities & Earth and Social Sciences

Easel 141 - *Creating User-Specific Pathfinding Modules & Algorithms for the Lightning Network and their Evaluation* by Rohan Salwekar; Mentor: Christian Kuemmerle, College of Computing and Informatics

Easel 142 - *Leveraging AI to Enhance Medical Adherence in Older Adults with Type 2 Diabetes* by Sneaha Santra; Mentor: Mohsen Dorodchi, College of Computing and Informatics

Easel 143 - *Developing Antibacterial Metallic-coated Silica-capped Iron Oxide Nanoparticles* by Laura Scala; Mentor: Juan Vivero-Escoto, Klein College of Science

Easel 144 - *Surficial Geology of Earthquakes Pertaining to Human Experience* by Yana Staroverov; Mentor: Missy Eppes, College of Humanities & Earth and Social Sciences

Easel 145 - *Testing the Transactivation Abilities of Four Tumor Suppressor (P53) Mutants* by Ruth Tamirat; Mentor: Ellen Wisner, Klein College of Science

Easel 146 - *Comparing the Effects of Human Fitspiration, Anime-themed Fitspiration, and Body Image Flexibility Quotes on State Body Image, Mood, and Exercise Motivation in Young Adult Men* by Joseph Thompson; Mentor: Jennifer Webb, College of Humanities & Earth and Social Sciences

Easel 147 - *Earth Science and Art: The blending of two disciplines* by Zachary Tolman; Mentor: Missy Eppes, College of Humanities & Earth and Social Sciences

Easel 148 - *Social Well-Being and Pain Interference: The Role of Self-Esteem* by Drew VanDine and Oliva Woods; Mentor: Scott Ravyts, College of Humanities & Earth and Social Sciences

Easel 149 - *Investigating the Epigenetic Mechanisms of Polycomb Components Through Single-Molecule Imaging* by Sridula Vardireddy; Mentor: Xiaojun Ren, Klein College of Science

Easel 150 - *Development of a Method for Preparing and Purifying Myofibrils from Rabbit Skeletal Muscle Tissue to Study Myosin Motors Cooperativity in Sarcomeres During Muscle Force Production* by Riley Van Ravesteyn; Mentor: Yuri Nesmelov, Klein College of Science

Easel 151 - *Enhancing Reliability and Performance of Marine Energy Systems* by Shreyas Vimaldev; Mentors: Wesley Williams and Michael Smith, William States Lee College of Engineering

Easel 152 - *Quantum Computing: Beyond Classical Limits* by Sushanth Yarlagadda; Mentor: Todd Dobbs, College of Computing and Informatics

Easel 153 - *Shifting Downtime: The Impact of Habitat Type on Resting Behavior in White-Handed Gibbons Across Thailand* by Lauren Yost; Mentor: Lydia E. O. Light, College of Humanities & Earth and Social Sciences

Session C: 12:45 pm - 1:45pm

Easel 100 - *LLM-Powered Vulnerability Detection* by Peter Akintunde-Yale;
Mentor: Marco Viera, College of Computing and Informatics

Easel 101 - *Individual Factors Affecting the Relationship Between Job Autonomy and Work Outcomes* by Sahara Al-Wajeh, Layna Hubbard, Tasmia Ashrafi, and Catlyn Auton; Mentor: Meghan Davenport, College of Humanities & Earth and Social Sciences

Easel 102 - *Electrochromic Properties of Novel Thiazolo[5,4-d]thiazole Derivatives* by James Anderson; Mentor: Michael G. Walter, Klein College of Science

Easel 103 - *The Roles of Anticipated Stigma and Social Support Processes in the Disclosure of Mood Disorders: A Study of Freshman Roommates* by Gabriella Boutte, Kristin Wilson, Brett Connell, Aine Sotillo, and Luke Adams; Mentor: Amy Canevello, College of Humanities & Earth and Social Sciences

Easel 104 - *Rethinking Conservation Strategy: Comparing Corporate vs. Household Pollution within the Catawba River Basin* by Sean Brule; Mentor: Missy Eppes, College of Humanities & Earth and Social Sciences

Easel 105 - *Weather Modeling and Visualization Using Distributed Computing* by Kaitlyn Brunhaver; Mentor: Erik Saule, College of Computing and Informatics

Easel 106 - *Apartheid's Lasting Effects on Shaping Psychological Health in Black South African Communities* by Noorkaran Chima; Mentor: Heather Smith, College of Humanities & Earth and Social Sciences

Easel 107 - *Investigating and Comparing Sustainable Development Goal #10 in Germany and the United States* by Jazmin Darwin, Zionah Davis, Hailey Morritt, and Jamari Young; Mentors: Erik Jon Byker and Benjamin Ade-Thurow, Cato College of Education

Easel 108 - *Synthesis of Antimicrobial Peptide Analogs for DNA Conjugation* by Dhairya Desai; Mentor: Eva Ge, Klein College of Science

Easel 109 - *The Physiographic Evolution of the American Southwest* by Jazmine Ellis; Mentor: Missy Eppes, College of Humanities & Earth and Social Sciences

Easel 110 - *Utilizing Machine Learning to Optimize Stormwater Infrastructure Management Decisions* by Amanda Fye; Mentor: Nicole Roberts and Michael Smith, William States Lee College of Engineering

Easel 111 - *Investigating and Comparing Sustainable Development Goal #4 in Germany and the United States* by Ryan Gee, Kyla Teamer, Landon Griffin, and Mick Keough; Mentors: Erik Jon Byker and Benjamin Ade-Thurow, Cato College of Education

Easel 112 - *Leveraging Large Language Models to Enhance Learning Outcomes in Undergraduate Software Engineering* by Jason Gianni; Mentor: Mohsen Dorodchi, College of Computing and Informatics

Easel 113 - *Effect of KRAS Inhibitors on Replication of Oncolytic Vesicular Stomatitis Virus in Pancreatic Cancer Cells* by Aroosh Goje; Mentor: Valery Grdzlishvili, Klein College of Science

Easel 114 - *Scaling Art Classification Models: Enhancing Binary Classifiers and Tackling the Challenge of AI-Generated Art* by Brendan Gorman; Mentor: Todd Dobbs, College of Computing and Informatics

Easel 115 - *Super(efficient)computer: Using High Bandwidth CPU-GPU Memory Interface to Improve Efficiency and Performance* by Andy Ha; Mentor: Tyler Allen, College of Computing and Informatics

Easel 116 - *Developing an Indoor Marine Robotics Testbed for Multi-Robot Navigation and Control* by Madison Hasley; Mentor: Artur Wolek, William States Lee College of Engineering

Easel 117 - *Investigating and Comparing Sustainable Development Goal #3 Good Health & Well Being in Germany and the United States* by Isaiah Hartness, Karol Moreno, and Karina Vilandrosa; Mentors: Erik Jon Byker and Benjamin Ade-Thurow, Cato College of Education

Easel 118 - *Palliative Care Readiness (PALCARE) Tool for Older Adults with Cancer and Their Family Caregivers: Development and Validation* by Liliana Hernandez, Savannah Norris, Regine Smith, and Zhuo Job Chen; Mentor: Jyotsana Parajuli, College of Health and Human Services

Easel 119 - *The phage discovery of 'Magdalena'* by Naw Hlaing; Mentors: Sharon Bullock and Michelle Pass, Klein College of Science

Easel 120 - *Tailoring a Sexual Violence Intervention Towards Sexual and Gender Minority Young Adults* by Rhoen Hoff, Parth Vyas, Yasmine Paige, Itati Ramirez, and Sage Rowe; Mentors: Jessamyn Moxie and Annelise Mennicke, College of Health & Human Services

Easel 121 - *Manufacturing Education and Training Using Immersive Digital Twins* by Jia Holt; Mentor: Jose C.M. Outeiro, William States Lee College of Engineering

Easel 122 - *The Effects of Social Support on Prisoner Reentry Outcomes in Emerging Adulthood* by Mia Huffman; Mentor: Shelley Johnson, College of Humanities & Earth and Social Sciences

Easel 123 - *Diversity of Epigeic Spider Species in Different Ground Cover Types in the UNC Charlotte Botanical Gardens* by Hope Hulse; Mentor: Sarah Stellwagen, Klein College of Science

Easel 124 - *A Multifaceted Nature: an Art-Science Exploration of Identities and North Carolina Geology* by Maya Hutagalung; Mentor: Missy Eppes, College of Humanities & Earth and Social Sciences

Easel 125 - *Building Annotated Datasets for AI-Enhanced Cybersecurity Education* by Melody Long; Mentor: Cori Faklaris, College of Computing and Informatics

Easel 126 - *Mental Health and Child Development: An Analysis of Maternal Well-Being as a Predictor of School-Age Children's Cognitive Development* by Sierra Lowery; Mentor: Stephanie Bradley, College of Humanities & Earth and Social Sciences

Easel 127 - *Dynamic Studies of Fluorescently Labeled APE1 Protein in Liquid-Liquid Phase Separation and its Role in Genome Integrity* by Anthony Malone; Mentor: Shan Yan, Klein College of Science

Easel 128 - *Assessing stream restoration success: Dissolved inorganic carbon as a metric of water quality and watershed function in pre- and post-restoration streams (Reedy Creek, Charlotte, NC)* by Charles McKinnon; Mentor: David Vinson, College of Humanities & Earth and Social Sciences

Easel 129 - *The Political Economy of Policing* by Yasmin Moaf; Mentor: Martin Shuster, College of Humanities & Earth and Social Sciences

Easel 130 - *A Rural Success Story: Rowan County's Public Health Response to the 1918 Spanish Flu Epidemic* by Madison Morgan; Mentor: Heather Perry, College of Humanities & Earth and Social Sciences

Easel 131 - *Creating an AI Assistant Prototype to Improve Mobile Security* by Tyler LaFramboise; Mentor: Cori Faklaris, College of Computing and Informatics

Easel 132 - *Sorority and Self Study* by Alexis Libardi; Mentor: Hannah Peach, College of Humanities & Earth and Social Sciences

Easel 133 - *Development of a Slip-Ring Swivel-Based Mooring System Prototype for a Wave Energy Converter (WEC)* by Justin Logan; Mentor: Michael Smith, William States Lee College of Engineering

Easel 134 - *Design, Manufacturing, and Testing of a High-Speed Loading Device for Material Characterization* by Sebastian Mares; Mentors: Qiuming Wei and Jose C. M. Outeiro, William States Lee College of Engineering

Easel 135 - *Designing Solutions to Improve Digital Safety and Connectivity with Participation from International Students* by Nishka Mathew; Mentors: Sarah Tabassum and Cori Faklaris, College of Computing and Informatics

Easel 136 - *Mechanical Properties of Non-planar 5-axis Polymer Additive Manufacturing* by Gabriel McAnuff; Mentor: Taner Tunc, William States Lee College of Engineering

Easel 137 - *A Comparative Study of Error-Bounded Lossy Compression Techniques for Scientific Data using Machine Learning Model* by Inkwon Oh; Mentor: Jinzhen Wang, College of Computing and Informatics

Easel 138 - *Developing items for measure of bystander intervention to prevent problematic alcohol use among college students* by Justin Ohiaeri, Brianna Jones, Zihui Qiu, and Cristty Castillo; Mentor: Annelise Mennicke and Erika Montanaro, College of Humanities & Earth and Social Sciences

Easel 139 - *Decoding the Link: Hsp70 Phosphorylation and TORC1 Signaling in Yeast* by Shreya Patel; Mentor: Andrew Truman, Klein College of Science

Easel 140 - *Parameter-Efficient Training through Efficient Joint Sparse and Low-Rank Adaptation* by Edgar Perez-Raygoza; Mentor: Christian Kuemmerle, College of Computing and Informatics

Easel 141 - *Zeolite Nanoresin's ability to remove fluoride from water* by Anna Pham; Mentor: Jordan Poler, Klein College of Science

Easel 142 - *Plant image disease detection, and the difficulties of accessing undergraduate research* by Evan Pickett; Mentor: Opeyemi Alabi, College of Computing and Informatics

Easel 143 - *A Gamified App for Social & Reflective Learning* by Nandana Pillai; Mentor: Qiong Cheng, College of Computing and Informatics

Easel 144 - *Development of a process for Extracting Nanocellulose Fibers from Plant Matter* by Madhava Aditya Bharadwaj Pinapati; Mentor: Roger Tipton, William States Lee College of Engineering

Easel 145 - *Sleeping Beauty Transposase - DNA Complex Structure* by Ragul Ramesh; Mentor: Yuri Nesmelov, Klein College of Science

Easel 146 - *Developing an Evidence-Based Children's Book Based on Emotional Clarity as a Pathway to Public Dissemination* by Tori Rogers; Mentor: Sara Levens, College of Humanities & Earth and Social Sciences

Easel 147 - *Perceptions of Diversity and Sense of Belonging Among Arts Majors and Alumni* by Jahdoi Russell; Mentor: Vaughn Schmutz, College of Humanities & Earth and Social Sciences

Easel 148 - *Assessing MLL Gene Translocations in Human Cells Treated with Bioflavonoids and other Genotoxins* by Emilee Trivette; Mentor: Christine Richardson, Klein College of Science



Thank you for attending the URC 2025!

Please complete the URC Evaluation and Feedback form, which is located at:
<https://tinyurl.com/URC25evaluation>

