

ABOUT CAPTURE 180

The Capture 180 Research Challenge tasks undergraduates to describe their work in 2-3 minutes, using one static slide or prop. It is based on the popular 3MT® competition for graduate students.

JUDGING & PRIZES

Capture 180 judges are students, community partners, and leaders within various ECU units. They are charged to use the judging criteria of:

- Impact, Comprehension, and Content
- Audience Engagement
- Communication

The challenge is divided into two rounds, a preliminary round with two groups carrying out their presentations in parallel, and a final round. The field is reduced in half after the preliminary round. The final round is composed of presenters who have advanced from the preliminary round. Presenters who do not advance to the final round are cordially invited to attend the final round. In the final round, the presenter who ranks first according to the judges will be the Overall Champion. The audience will have an opportunity to complete an online survey with the same criteria. The presenter who ranks first according to the audience's rating will be the People's Choice winner. Both winners are announced afterwards and receive paperweight awards.

ADA Accommodation: 252-737-1018 or
ada-coordinator@ecu.edu



Main Campus Student Center
April 1st, 2024 | 2:00 PM - 4:30 PM



EVENT ITINERARY

Preliminary Round

1:45 PM – 2:00 PM

Check-In with Moderators
Group A MCSC 249
Group B MCSC 253

2:00 PM – 2:45 PM

2:45 PM – 3:00 PM

Presentations
Judge Deliberations
Final Round Presenters Announced

Final Round MCSC 200

3:15 PM – 3:30 PM

3:30 PM – 4:15 PM

4:15 PM – 4:30 PM

Check-In and Introduction
Final Round Presentations
Judge & Audience Deliberations
Winners Announced

ACKNOWLEDGEMENTS

Final Round Judges

Dr. Bevley Green

Director of Student Professional Readiness

Academic Affairs

Mrs. Elizabeth McCallister

Director of the Center for Pre-Professional Advising

Ms. Ellen Sheffer

ECU Class of 2013, Psychology BA

Owner, Southern Soleil

Preliminary Round Judges

Bradly Boaz Corrina Miller Kristen Sansone Carly Villegas
Class of 2024 Class of 2024 Class of 2024 Class of 2024

Preliminary Round Moderators

George Cherry Jr. Ahmad Richardson
Class of 2024 Class of 2024

Video and Onsite Assistance

Aida Khalifa
Class of 2026

Group A PRELIMINARY PRESENTATIONS

MCSC 249 1:45 PM -3:00 PM

Moderator: George Cherry Jr.

1. Fibrinogen: The Mastermind Behind Thrombosis in Pregnant Women

Exploring the relationship between fibrinogen and blood clots.

Maria Gonzalez Mundarain (Biology)

Nathan Hudson (Mentor)

2. Trading Light for Food: Bacteria and Squid Team Up to Camouflage with Moonlight

How determining the structure of a protein will aid in developing anti-Vibrio drugs.

Aliza Bista (Biochemistry)

Morgan Eilise Milton (Mentor)

3. Exploring Opportunities for Growth in Mental Health Courts in North Carolina

The NC mental health courts offer additional support for justice-involved individuals experiencing mental illness. Analysis of interviews was conducted to explore how to improve the reach of such courts.

Tierney Reardon (Political science)

Mitzi Pestaner (Mentor)

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4. NPCs are the Last Thing You Want Bugged in the Brain Game

Investigating how the brain's neural progenitor cells (NPCs) are impacted by Tuberous Sclerosis, contributing to neurodevelopmental disorders such as autism and epilepsy.

Robin Thomas (Biology with a concentration in Molecular/Cell Biology)
Karen Litwa (Mentor)

5. Emotional Laboring Through Birth: Insights from Doula Volunteers

Mothering the mother and other forms of emotional labor done by doulas. I examine how doulas support patients in the labor and delivery unit to enhance the birthing experience emotionally and physically by navigating pain perception.

Rachana Charla (Biology)
Kristen Myers (Mentor)

6. Examination of Novel Small-Molecule Modulators in Mitigating Learning Deficits in a Mouse Model of Alzheimer's Disease

Not so small: Small-molecule modulators that play a BIG game in learning and memory.

Esha Shah (Neuroscience, Psychology)
Tuan Tran (Mentor)

7. Tracking Cloud Coverage in Matlab

Weather is an important factor in atmospheric acoustic transmission loss. Clouds specifically influence the temperature profile which affects sound propagation at the coast.

Sophie Arruza (Engineering with Electrical and Industrial Concentrations)
Teresa Ryan (Mentor)

8. Nourishing Knowledge

Development and assessment of the Impact of low-health literacy tailored nutrition and healthy living educational handouts in group diabetes management class settings.

Aaditi Kulkarni (Public Health)
Lauren Sastre (Mentor)

Group B PRELIMINARY PRESENTATIONS

MCSC 253 1:45 PM - 3:00 PM

Moderator: Ahmad Richardson

1. Novel Nanoantibiotic Inhibits Pseudomonas Aeruginosa Infections in Muco-Obstructive Lung Diseases

Using amino-functionalized silver nanoparticles (NH₂-AgNPs) as breakthrough therapy against tobramycin-resistant P. aeruginosa in COPD and cystic fibrosis patients.

Lauren Garcia (Environmental Health)
Lok R. Pokhrel (Mentor)

2. A Closer Look at Mothers in Rural North Carolina

To provide comprehensive and effective maternal and child healthcare, learning stories from mothers about their experiences can work to improve rural healthcare.

Simona Adhikari (Public Health)
Alice Richman (Mentor)

3. Sustainable Transformation of Fast Fashion Supply Chains: Challenges, Innovations, and Ethical Imperatives

The Fast Fashion Industry has gained widespread attention for its negative impacts on the environment, labor practices, and social responsibility. This project is intended to explore two key challenges associated with the fast fashion supply chains and propose innovative strategies for making them more sustainable for the environment, ethical in their practices while maintaining highest efficiency.

Madison Nay (Supply Chain Management)
John Kirchoff (Mentor)

4. Cell Adhesion Defects in Skin Fragility Disorders

Investigating the molecular mechanisms contributing to skin fragility in two types of ectodermal dysplasias.

Isaiah Proctor (Biochemistry)
Maranke Koster (Mentor)

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5. Did You Know That Microplastics Glow?

Quantifying microplastic density in surface and sediment samples in the Tar-Pamlico River and Pamlico Sound using fluorescence microscopy.

Christine Chan (Biology, Environmental Studies)

Rebecca Asch (Mentor)

6. Identifying Molecular Signals that Influence the Assembly of a Stem Cell Microenvironment in Fruit Flies

I study the development of the stem cell niche, a specialized environment, using the fly testis. Specifically, if signals from a group of male specific cells influence niche localization within the testis.

Amanda Rommel (Biology)

Lauren Anllo (Mentor)

7. Predictors of Cognitive Functioning in Infants Visiting the NICU Follow-Up Clinic

How well are your baby's problem-solving skills after staying in the NICU?

Katelynn Teli (Neuroscience, Psychology)

Lauren Sastre (Mentor)

8. Combining Forces Against the Opioid Crisis: Pioneering a Path to Minimize Dependency

Alleviating opioid withdrawal symptoms by harnessing the power of a novel drug combination.

Josie Smith (Neuroscience, Biochemistry)

Kori Brewer (Mentor)

FINAL ROUND PRESENTATIONS

MCSC 200 (Blackbox Theatre) 3:30 PM - 4:30 PM