

URSCO Newsletter

UNCG Undergraduate Research, Scholarship and Creativity Office | Fall 2019 Recap

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14th Annual Thomas Undergraduate Research and Creativity Expo

*Thursday April 2, 2020
in the Elliott University Center*
Abstracts will be accepted
January 22 — February 19

Save the Date!

The expo is the campus-wide celebration of undergraduate research, scholarship, and creative activities. All undergrads engaged in faculty-mentored scholarly inquiry are encouraged to participate. Students are eligible to compete for program recognition, which includes monetary awards. Categories for these awards include:

- **Humanities and Social Sciences**
- **Education and Behavioral Sciences**
- **Mathematics, Life and Physical Sciences**
- **Performance**
- **Emerging Scholars** (UNCG Residential College Students)

Participants in course-based undergraduate research projects are also encouraged to present.



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Important dates

~Spring 2020~

- **January 13:** Classes begin
- **January 22—February 19:** Abstracts accepted for the 14th Annual Thomas Undergraduate Research and Creativity Expo
- **February 9:** Summer URCA proposal deadline
- **February 29—March 8:** Spring Break
- **April 5:** Fall/Spring 2020/21 URCA proposal deadline
- **April 2:** 14th Annual Thomas Undergraduate Research and Creativity Expo
- **April 29:** Last day of classes
- **May 1 & 2, 4-7:** Final exams



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SURF

~2019~



Eight students represented UNCG at the 4th annual Southern Conference Undergraduate Research Forum (SURF) on November 2-3, 2019. SURF was hosted by Wofford College in Spartanburg, South Carolina and featured approximately 150 students from all 10 Southern Conference institutions. Participating students presented their research, scholarship, and/or creative inquiry from a wide array of disciplines. UNCG students that participated in SURF were able to attend presentations from other undergraduate students in addition to presenting their own project.

"This forum was an incredible opportunity to meet and connect with students from different schools and disciplines. I am grateful for this experience because I was able to step outside my comfort zone and learn not only what new research other undergraduate students are doing but also what the future is beginning to look like as a result of forward-thinking scholars." - **Katie Tardif**

"The trip really energized me and gave me so many new perspectives and things to ponder" - **Alex McGlamery**

"I really enjoyed having the opportunity to practice my presentation skills and getting to know all of the others who attended. I am so grateful to have had such a wonderful experience."
- **Caroline Nelson**



(Left to right) Alex McGlamery, Stephanie Stephens, Alex Stewart, Viola Munos, Caroline Nelson, Katie Tardif, Ajah Haskell, Kamara Culbreath, Dr. Lee Phillips (URSCO Director)

SURF Presentations

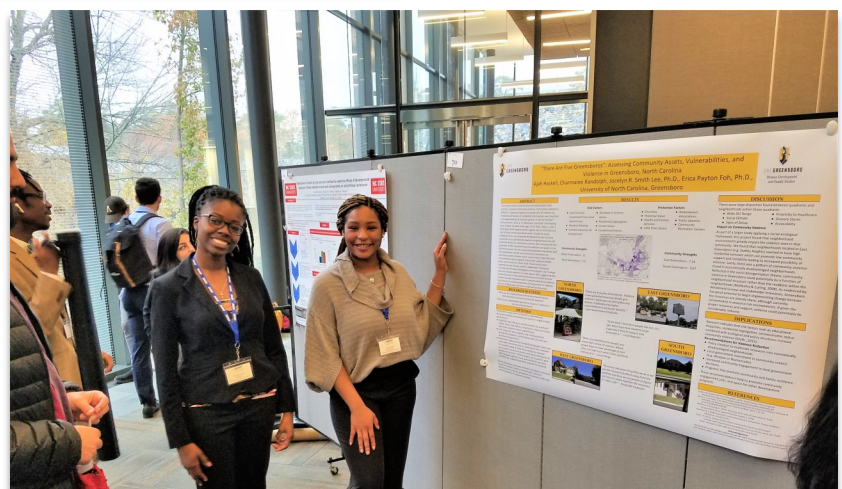
Student	Faculty Mentor	Presentation Title
Kamara Culbreath	Alicia Aarnio	Motions of Stars and Gas in M82
Ajah Haskell	Jocelyn Smith Lee	Assessing Environmental Risk and Protective Factors for Violence in Greensboro
Alexander McGlamery	Brittany Cassidy	Age Differences in Trust-Based Financial Decisions
Viola Munos	Tetyana Ignatova	Optimizing Graphene Transfers for Various Graphene Applications
Caroline Nelson	Jennifer Hunter	Adaptive Optics Imaging of Human Retinal Pigment Epithelium
Stephanie Stephens	Sarah Praskievicz	Why Do People Drink Bottled Water? Geographic Patterns of Bottled Water Consumption in Greensboro, NC
Alex Stewart	Mary Barret	Understanding the Bombard Reed
Katherine Tardif	Asha Kutty	Examining the Designed Environment and Crime, Using Innovative Technologies: A Case Study of the UNCG Campus and its Surrounding Neighborhoods

SNCURCS

~2019~

Seventeen UNCG students presented their research at the 15th annual State of North Carolina Undergraduate Research and Creativity Symposium (SNCURCS) on Saturday November 23, 2019 at Duke University. SNCURCS was hosted by Duke University, the North Carolina School of Science and Math (NCSSM), and Duke University's Undergraduate Research Support office. There were 418 presentations and over 600 attendees at this year's SNCURCS.

SNCURCS provides undergraduate scholars in all fields a forum to share the results of their work through posters, oral presentations, performances, and works of art.



Ajah Haskell and Charmaine Randolph with their poster presentation at SNCURCS

SNCURCS Presentations

Student	Presentation Title
Emanuel Barrera	Counting the Montagnards? Descriptive findings of the Montagnard Population Count Project
Michael Bell	Cycladic Beekeeping in Context: Ceramic Beehives on the Island of Kea
Asia Brannon	Diagnostic Utility of CSF WBC Components in Identifying Neonatal Bacterial Meningitis
Taylor Crawford	Molecular Effects of the Herbicide, Glyphosate, on Human Osteoblast Cells
Kamara Culbreath	Composition and Orbits of Stars and Gas in a Tidally Disrupted Starburst Galaxy
Hannah Ficklin	The Creativity Muscle: Inviting Creativity to the Classroom Through Genre
Aran Garnette-Deakin, Rachel Fuqua	Violence, Trauma, and Transition to Fatherhood: Examining How Community and Police Violence Informs Fathering for Young Black Men
Ajah Haskell, Charmaine Randolph	“There are Five Greensboros”: Assessing Community Assets, Vulnerabilities, and Violence in Greensboro, North Carolina
Aidan Lytle	Understanding Discrete Mathematical Methods for Non-Flow Analysis in Heavy Ion Collision
Alexandra McCourt	#ChangeTheRhetoric: How Writing Centers Can Advocate Against Racist Rhetoric and Impact Outreach
Viola Munos	Optimizing Graphene Transfers For Various Graphene Applications
Melika Osareh	Analysis of Gravitropism in Arabidopsis Thaliana Plants
Madeline Rees	Factors Controlling the Mechanisms of Eating Behavior in Mammals
Benjamin Thornburg, Terence Rollins	Estimating Joint and Single State Utilities in Alcohol Use Disorders

MARC U-STAR

UNCG's Maximizing Access to Research Careers Undergraduate Student Training in Academic Research (MARC U-STAR) Fellowship program offers talented students underrepresented in the biomedical sciences an opportunity to prepare for graduate school.

UNCG's MARC U-STAR Fellows work in research labs during their junior and senior year and receive:

- A yearly stipend and tuition is paid at the in-state level
- Undergraduate Research Experiences
- Funding to engage in year-round research projects
- Paid summer research experiences
- In a UNCG faculty mentor's lab
- With a research group at another institution
- Specialized courses and workshops
- Travel funds to attend scientific conferences
- Opportunities to publish and present their work



Seven UNCG MARC Fellows attended the Annual Biomedical Research Conference for Minority Students (ABRCMS) and of those seven, five presented their research. ABRCMS is one of the largest communities of underrepresented minorities in STEM. Students attend this conference to present their research, enhance professional development skills, explore graduate schools, and network. During the four day conference, over 5,000 attendees from over 350 colleges and Universities participate in poster and oral presentations in twelve STEM disciplines.



Student	Faculty Mentor	Presentation Topic
Sasha Adams	Joseph Santin	Cellular Neuroscience, Comparative Neurobiology, Electrophysiology
Oluwaseya Isijola	Sandra Echeverria	Diabetes & Physical Activity
Cindy Onokalah	Kimberly S. Peterson	Synthesizing a Lactam Using a Chiral Bronsted Acid to Initiate a Stereoselective C-N Bond
Chris Roberts	Nicholas H. Oberlies	Isolation of New Cytotoxic Compounds from Fungi
Lashunta Rodgers	Joseph L. Graves Jr.	Escherichia coli Metal Resistance Measurements

McNair Scholars Program

The **UNCG-McNair Scholars Program** is a federal TRiO program funded by the US Department of Education. Designed to prepare undergraduates for pursuit of a PhD, UNCG-McNair provides 25 undergraduate students with opportunities to complete research with faculty mentors, attend the UNCG-McNair Summer Research Institute, explore graduate school options, and prepare for graduate-level studies.

On November 18, the new cohort of McNair Scholars were formally inducted for the 2019-2020 School Year. URSCO would like to extend our congratulations to these scholars!



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McNair Program

McNair Scholars Program

During the summer of 2019, first-generation and traditionally underrepresented students conducted research and prepared for graduate school through the McNair Summer Research Institute.

Throughout the eight-week experience, students conducted independent research, prepared for the Graduate Record Examination, participated in a writing lab and completed an academic professionalization course to prepare for the graduate school application process.

Name	Major	Faculty Mentor	Library Mentor	Research Project
Aaliyah Belk	Public Health	Tracy Nichols	Sam Harlow	"A Day in the Life: Advocacy and Activism"
Kiara Bethune	CARS and Computer Science	Trish Kemerly	Maggie Murphy	"Roles Reversed: Social Media's Impact on Fashion Influencers"
Asia Brannon	Biology	Duke Clinical Research Institute	Lea Leininger	"Diagnostic Utility of CSF WBC Components for the Identification of Bacterial Meningitis in Neonates"
Taylor Crawford	Biology	Karen Katula	Megan Carlton	"Effects of Glyphosate on Human Bone Stem Cells"
Antoine Cunningham	Sociology	Shelly Brown-Jeffy	Rachel Olson	"Survival 101: Systematic Oppression in the Civil Rights Movement"
Nijahlyn Edwards	Public Health	Erica Payton	Amy Harris-Houk	"Community Observations: Assessing Neighborhood Risks and Protective Factors for Violence"
Chyanne Flores	Sociology	Davis Kauzlarich and Rachael Patterson	Jenny Dale	"A Case Study of the Guilford County Reentry Council"
Briana Franklin	Biochemistry	Huzefa Raja	Megan Carlton	"Fungal Identification using DNA Barcoding"
Alexis Scott	Business	Chanelle James	Steve Cramer	"Redefining the Role of Being the Boss: African American Women Navigating the Complex World of Entrepreneurship"
Deijah Wannamaker	Anthropology	Linda Stine (and Research on-site in Poland)	Kate Hill	"What Affect did Vampirism have on 13th century Poland" (Research abroad in Poland)
Draven Ward	HDFS	Daniel Rhodes	Amy Harris-Houk	"Military Service Member Exposure to Trauma and Impact on Parenting Styles"
Bell Wortham	African-American Diaspora Studies	DeAnne Brooks	Sam Harlow	"Representation Matters in Classrooms"

STAMPS

The STAMPS (Science, Technology and Math Preparation Scholarships) Program is supported by the National Science Foundation and it offers scholarships for academically talented undergraduate students in the sciences. The primary goal of the STAMPS program at UNCG is to provide financial and community support for undergraduate students who are majoring in Biology, Chemistry, Computer Science, Geography, Mathematical Sciences, and Physics and Astronomy. Students are awarded scholarships based on a demonstration of both a significant promise for success in science/math and a measurable financial need. In addition to financial support STAMPS incorporates a variety of community-building measures including peer mentors, a science colloquium series, tutoring, field trips to research facilities, and undergraduate research opportunities.

This year's STAMPS scholars visited the National Zoo and its Smithsonian Conservation Biology Institute Science Building in late September. The scholars also explored the National Mall and museums in Washington DC.



New STAMPS Scholars

Student	Faculty Mentor	Major
Brittany Brittain	Dan Royall	Geography, Environment. And Sustainability
Isaiah Bucur	Jerry Walsh	Biochemistry
Anthony Espinal	Maya Chhetri	Mathematics
Josh Franks	Jerry Walsh	Chemistry
Josh Geddes	Promod Pratap	Physics
Zion Glass	David Remington	Biology
Mackenzie Johnson	David Remington	Biology
Zion Kramer	Kim Peterson	Chemistry
Matthew Odom	Maya Chhetri	Mathematics
Maria Partida	Ayalew Osen	Biology
Beh Reh	Ramji Bhandari	Biology
Fatema Shahid	Ayalew Osen	Biology

STAMPS Scholars

Student	Faculty Mentor	Major
Emily Ahsburn	Steve Tate	Computer Science
Maia Antoniou		Biology
Chanel Brown	Prashanti Manda	Computer Science
Seth Chaffin	Promod Pratap	Physics
Sydney Chamberlain	Malcolm Schug	Biology
Steven Cintron	Steve Tate	Computer Science
Charles Crawford	Jerry Walsh	Chemistry
Jamie Crocker	Malcom Schug	Biology
Eliza Glass	Malcom Schug	Biology
Victor Gomez	Promod Pratap	Physics
Taigia Gordon	Kim Petersen	Chemistry
Draco Kriger	Kim Petersen	Chemistry
Taylor Lovett	Olav Rueppell	Biology
Monica Mcdaniel	Liam Duffy	Biochemistry
Mckenzie Moize	Promod Pratap	Computer Science
Viola Munos	Promod Pratap	Physics
Caroline Nelson	Malcolm Schug	Biology
Megan Otey	Dan Royall	Biology
Isabel Pearce	Malcolm Schug	Biology
Juan Quiroa	Maya Chhetri	Mathematics
Christopher Roberts	Jerry Walsh	Biochemistry
Avinash Singh	Prashanti Manda	Computer Science
Dynah Sutton	Malcolm Schug	Biology
Sytiva Wheeler	Steve Tate	Computer Science
Kevin Xiong	Jerry Walsh	Biochemistry
Andrew Zook	Steve Tate	Computer Science

URSCO Faculty Fellows

2019–2020

The goal of the URSCO Fellows program is to identify, support, and disseminate new ideas and pedagogical practices that increase the accessibility of Undergraduate Research on our campus.

This year, four UNCG Arts and Humanities faculty members will serve as URSCO Faculty Fellows

In addition to these four, Dr. Joanne Murphy, Classical Studies, is serving as Senior Fellow and will work alongside URSCO Director, Dr. Lee Phillips, to develop and refine additional strategies for discussing research in the curriculum.

Fellow	Department	Course Revisions
Lalenja Harrington	Education	Harrington plans to expand on current facilitation with undergraduate research with a Course Based Undergraduate Research Experience (CURE) in <i>ELC 498–Participatory, arts-based research: promoting inclusive teaching practice</i> .
Heather Holian	Art	Holian plans to add a 10 week Course based Undergraduate Research Experience (CURE) to her new lecture course, <i>ARH 360: Women Artists of Disney and Pixar Animation</i> .
Thomas Jackson	History	Jackson will utilize the Faculty Fellows program to assist with implementing Course based Undergraduate Research Experience (CURE) in the new class, <i>HIS 350: American Immigration: Newcomers and Gatekeepers</i> .
Clifford Smyth	Mathematics and Statistics	Smyth plans to incorporate research activities pertaining to the Hirsch Conjecture into the spring course <i>MAT 322 Linear Programming</i> as a Course based Undergraduate Research Experience (CURE) with the assistance of the Faculty Fellows program.

URCA Recipients

~Spring 2020~

Student	Faculty Mentor	Department	Project Title
Aliyah Janeen Aal-Anubia	Heather Coleman	Specialized Education Services	“The Benefits and Challenges to Team Teaching in an Early Childhood Interdisciplinary Program”
Jaylynn Battle	Marcia Hale	Peace and Conflict Studies	** “Water, Food and Land in Cape Town's Protracted Social Conflict”
Brianna Bricker	Campbell McDermid	Specialized Education Services	“Gendered Translation: Exploration of the target texts of sign language interpreters”
Tevondre Bryant, Cameron Robinson	Denise Gabriel	Theatre	*** “Mindfulness Art Mindfulness Action (MAMA)”
William Crandall	Nadja Cech	Chemistry and Biochemistry	“Fungi from the Guilford Forest Underground Railroad Tree: The Quest for New Leads Against Methicillin Resistant Staphylococcus aureus (MRSA)”
Larry Crotts	Denise Green	Computer Science	“Computational Analysis of Rhetoric”
Diyana Granum	Traci Parry	Kinesiology	“The Exercise-Mediated Role of Autophagy in Tumor Growth and Metabolism”
Abigail Knight	Erin Lawrimore	University Libraries	“War on the Homefront: Responses to the Influenza Pandemic of 1918 at Three North Carolina Colleges”
Kaliyah Landrum	Emily Edwards	Media Studies	“Storyboarding Theory: Developing visual Concepts to Guide, Storytelling, Scripting, and Visualization”
Brendan Mulligan	Joanne Murphy	Classical Studies	* “Global Connections in Roman Greece: The Case of Kea”
Alexandra Pardo	Robyn Le Blanc	Classical Studies	“Funding for the Apostle Paul's Missionary Journeys”
Jacqueline Sandoval	Sandra Echeverria	Public Health Education	** “Social barriers to proper diabetes management among Latinos diagnosed with diabetes”
Madeline Tillman	Nadja Cech	Chemistry and Biochemistry	“In Search of Drug Leads Against Aggressive, Drug Resistant Bacterial Infections”

*Indicates Globally Engaged Project
 ** Indicates Community Based/Engaged project



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URSCO is a unit within the University Teaching and Learning Commons

130 Shaw Residence Hall (on the quad)
1310 Walker Ave
Greensboro, NC

For more information about what UNCG's undergraduate scholars are up to, visit the URSCO blog!
<https://utlc.uncg.edu/ursco/blog/>



URSCO

By Hope Voorhees / December 4, 2019

The Buzz on Bee Size

Kali Cox graduated in May 2019 with a degree in biology. She and her collaborator Jake Herman completed the project...

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By Hope Voorhees / October 31, 2019

Digging In

Since 2009, Dr. Joanne Murphy (left) has guided UNCG students like Michael Bell (right) through six-week professional internships at an...

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By Hope Voorhees / September 20, 2019

Collision Courses

Repost from UNCG Research Magazine Aidan Lytle has been interested in physics – “the purest science,” he says – since...

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