



UNC CURE Summit

Course-Based Undergraduate Research Experience

“Integrating research into the undergraduate curriculum”



**THE UNIVERSITY OF
NORTH CAROLINA SYSTEM**

**MAY 15, 2024
UNC GREENSBORO**

Campus Map



Parking

Elliott University Center

**University of North Carolina System-Wide
Undergraduate Research Development and Summit
WELCOME**

Thank you for attending the 2024 Summit. The Summit provides a venue for faculty and administrators to hear about the successful design and implementation of CUREs in a variety of disciplines and class levels; to promote the development of CUREs ready for implementation by faculty across a wide array of disciplines and at different points in students' academic careers; to create a network of CURE developers on each partnering campus, as well as across the whole of the UNC System.

Principal Investigators

UNCG

Lee Phillips, Ph.D., Director – Undergraduate Research, Scholarship and Creativity Office

NCA&TSU

Mulumebet Worku, Ph.D., Director – Office of Undergraduate Research

Acknowledgements

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Keynote Speaker
Dr. Karen Resendes

Associate Dean of Assessment & First-Year Experiences, Westminster College



Dr. Karen Resendes began her career as an undergraduate researcher, working in cell biology laboratories at the College of William and Mary and the National Cancer Institute. Those experiences led her to obtain a PhD in Molecular Biology, Cell Biology, and Biochemistry at Brown University and as a postdoc at UC San Diego and San Diego State University she developed a passion for teaching and working with undergraduate researchers. As a Professor of Biology at Westminster College she has mentored over 50 individual undergraduate researchers, while simultaneously developing CUREs in 300 and 400 level courses to broaden the impact of research to more students and as a training program leading toward individual projects. In addition to her academic career, Dr. Resendes has worked nationally to promote undergraduate research through various roles in the Biology Division and Executive Board of the Council on Undergraduate Research. In her time as chair of the CUR Biology Division she helped shepherd the development of the MIRIC program: Mentoring the Integration of Research into the Curriculum, which provides support for faculty at colleges across the country new to the use of CUREs and those seeking to refine and assess such experiences. In partnership with CUR Biology, she has delivered numerous workshops and presentations on CURE development at AAC&U and CUR conferences as well as disciplinary specific meetings. In addition, Dr. Resendes has individually implemented institution-based trainings on the incorporation of CUREs at any level and in any discipline. Her keynote session will focus on the many possible iterations of CUREs and how to find best pathway to develop and refine a CURE in your own individual and institutional context.

2024 UNC System-wide Undergraduate Research Development Summit

Schedule Overview

Wednesday May 15

Elliot University Center

8:00 - 9:00	Registration and Check In	Alexander
9:00 - 10:10	Opening Plenary Session	Alexander
10:10 - 10:20	Coffee Break	
10:20 - Noon	Concurrent Sessions 1 & 2	Alexander and Claxton
Noon - 1:00	Networking Lunch	
1:00 - 2:40	Concurrent Sessions 3 & 4	Alexander and Claxton
2:40 - 2:50	Break	
2:50 - 3:15	Closing Plenary Session	Alexander

Summit Schedule

Elliott University Center

Alexander

Plenary Session (9:00 – 10:10)

Welcome

- *Lee Phillips, UNCG, and Millie Worku, NC A&T*
- *Omar Ali, UNCG*
- *Andrew Hamilton, UNCG*
- *Jennifer Gerz-Escandon, UNC System Office*

Keynote Address

Finding your own pathway to CURE development and enhancement

- *Karen Resendes, Westminster College*

(10:10 – 10:20)

Coffee Break

Session 1 (10:20 – Noon)

Claxton

- 10:20 A Model for Sustainable CURE to Promote Faculty Research and Student Gains
- *Lance Barton, UNC Charlotte*
- 10:40 Project Based Research Experience for Undergraduates in Data Science Learning
- *Yufang Bao, Fayetteville State University*
- 11:00 Lessons Learned: Majors and non-majors Tiny Earth implementation
- *Stephanie Mathews, NCSU*
- 11:20 Implementation of CUREs in Chemistry Labs with Support of the CUR Transformations Project
- *Jerry Walsh, Dan Christen, and Pradyumna Pradhan, UNC Greensboro*
- 11:40 *Discussion*

Session 2 (10:30 – Noon)

Alexander

- 10:20 Administrative Buy In, Not What You Say But How You Say It
- *Troy Purdom, NC A&T*
- 10:40 Group-based CUREs in a Psychology Research and Statistics Sequence
- *Candelyn Rade and Mark O'Dekirk, Meredith College*
- 11:00 Introducing Undergraduates to the Journal Article
- *Rohit Singh, UNC Greensboro*
- 11:20 Our Bodies have Stories to Tell: Integrating applied theatre as research method in the college classroom
- *Lalenja Harrington, UNC Greensboro*
- 11:40 *Engaging Students Learning Through Community Engaged Citizen Science Research*
- *Tobin Walton, Anderson Bean and Stephanie Teixeira-Piot, NC A&T*

(Noon – 1:00)

Networking Lunch

Session 3 (1:00 – 2:40)

Claxton

- 1:00 The Value of Process for Course-Based Undergraduate Research in the Humanities
 - *Karen Weyler, UNC Greensboro*
- 1:20 Composing Across Borders: Documentary Filmmaking through Indigenous Research Methodology
 - *Kefaya Diab, UNC Charlotte*
- 1:40 Engaging Adult Learners in Undergraduate Research
 - *Geleana Alston, NC A&T, Tyechia Paul, FSU, and Erin Lynch*
- 2:00 Accessing the minds of the neurodivergent through diverse CURE based learning
 - *Richard Allen White III, UNC Charlotte*
- 2:20 "The CURE-M Program" a Course-based Undergraduate Research Experience Institute with Culturally Responsive Mentor Training at Two HBCUs
 - *Anna Lee, Millie Worku, Sherrice Allen, and Geleana Alston, NC A&T, and Kacey DiGiacinto, Andre Stevenson, and Margaret Young, ECS*

Session 4 (1:00 – 2:40)

Alexander

- 1:00 Enhancing CURE Courses: Leveraging OneNote Class Notebook as an Electronic Laboratory Notebook
 - *Michaela Gazdik Stofer and Stephanie Matthews, NCSU*
- 1:20 The Trifecta of Course-Based Undergraduate Research, Scholarship of Teaching and Learning, and Traditional Undergraduate Research: Finding the "Sweet Spot"
 - *Chad Hallyburton, Marian Da Costa, and Dezirae Rodriguiz, Western Carolina University*
- 1:40 The Influence of Undergraduate Research Courses on Student Engagement and Critical Thinking
 - *Jessica Han and Pameeka Smith-Pearson, NC A&T*
- 2:00 CUPA-CURE: An adaptable, computational biology research experience
 - *Amanda Storm, WCU, and Amanda Hulse-Kemp, USDA*
- 2:20 Integrating CURES, Traditional Undergraduate Research, and Scholarship of Teaching and Learning to Engage Students and Improve Pedagogy
 - *Chad Hallyburton and Mariana Da Costa, WCU*

**Plenary Session
(2:50 – 3:15)**

Alexander

Closing Remarks – Lee Phillips and Millie Worku

UNC System-wide CURE Summit

~ Abstracts ~

Engaging Adult Learners in Undergraduate Research

Geleana Alston, North Carolina A&T State University, Tyechia Paul, Fayetteville State University, and Erin Lynch

Of the 19.7 million undergraduate students enrolled in U.S. colleges and universities, 7.5 million aged 25 and older¹. It is projected that enrollment of students aged 25 to 34 will increase by approximately 4% between 2020 and 2029.² With particular interest of five HBCUs within the UNC System, approximately 20% of undergraduate students were adult learners according to the 2019 and 2018 Fall enrollment data. The CURE-DEAL Project sought to identify strategies for enhancing our current undergraduate research enterprise among these HBCUs. As the first, multi-institutional team to explore the ever-growing, yet understudied, undergraduate post-traditional adult learner population at HBCUs within the UNC System, this project was timely for its contribution to understanding a population believed essential to advancing initiatives to increase undergraduate research engagement across the UNC System.

Project Based Research Experience for Undergraduates in Data Science Learning

Yufang Bao, Fayetteville State University

The Statistical Modeling for Data Science is one of the required courses for our Data Science minor at Fayetteville State University. This course introduces students to concepts and methods for statistical data modeling and visualization. It prepares students to blend their knowledge of the modeling methods with computational skills to analyze to make decision and predict trends in application.

One key component of this course includes two projects designed for students to gain course-based undergraduate research experiences (CUREs) during their learning. The goal for the projects for students is to help them learn to do research while taking the course. Based on what is learned, students integrate their learning into application using software Statistics R. Students will divide available data into two disjoint sets: training and testing. They will work on the train dataset using algorithms of their selection, such as decision tree and knn algorithms etc., then predict their classification on their test dataset and evaluate the performance of the models they trained. Our

first project is a warmup for students based on their homework assignments while the second project is built upon the first project and further requires students to apply the modeling algorithms they have learned to a new application.

While current project component works fine for a small class setting, we plan to refine the project to better work for students taking this course and to make it to accommodate more students to work on their application for data description, analysis and visualization using statistical modeling.

A Model for Sustainable CURE to Promote Faculty Research and Student Gains

Lance Barton, UNC Charlotte

Course-based Undergraduate Research Experiences (CURE) provide research opportunities to traditionally underserved students by embedding projects into the classroom curriculum. While numerous benefits for students have been identified, the CURE faculty gains have not been as well-researched. Here we present evidence from a Cancer Biology course that demonstrates a CURE curriculum promoting student learning outcomes and faculty scholarship. The Cancer Biology CURE enrolls a diverse student population, thus making research more accessible and removing many of the barriers of traditional independent apprenticeships. These students showed immense learning gains that met or exceeded their STEM major counterparts. Because students learn basic bench and lab techniques, less time and training are required for students subsequently being recruited for projects by faculty. Furthermore, the data collected by CURE students replicated pre-established trends in the literature, providing a basis for multiple independent research projects. Additionally, the public presentations given by CURE students increase the faculty member's broader impacts and professional network. Overall, CURE courses can provide a sustainable model that promotes both student skill development and faculty research.

Composing Across Borders: Documentary Filmmaking through Indigenous Research

Methodology

Kefaya Diab, UNC Charlotte

In Composing Across Borders: Transnational Digital Composing course, I integrated a documentary film group project. I divided my students into 5 groups, where each group worked

with one international student, that I previously recruited, to tell their story about literacy, learning, and education across cultures. The goal was to educate the UNCC community and larger world about struggles and challenges, which international students in the U.S academia face. I designed the course to comply with an indigenous research methodology and feminist filmmaking framework to emphasize diversity, equity, and ethical treatment among students and their international student partners.

In this presentation I introduce documentary filmmaking as a research method that helps student explore the world and present their findings through storytelling to a wider audience than their classmates and teachers. I also forward the project as an empowering tool to international students who often are marginalized in the U.S academia, by giving them a venue of expression to tell their success stories despite the challenges.

I invite the presentation attendees to watch the 5 short documentary films my students and their international student partners created, which are posted on this website.

<https://www.compXborders.com>

Enhancing CURE Courses: Leveraging OneNote Class Notebook as an Electronic Laboratory Notebook

Michaela Gazdik Stofer and Stephanie Mathews, NCSU

Course-based undergraduate research experiences (CUREs) provide students with hands-on research opportunities within their coursework, fostering skills essential for future scientific endeavors. An important component of these experiences is the development of proper scientific documentation through laboratory notebooks. Teaching students how to keep a laboratory notebook instills in them the importance of following good scientific practice, including accuracy, transparency, and reproducibility. By actively recording their experimental procedures and observations, students learn how to record experimental details, collect data systematically, and analyze results effectively. In this session, we will explore the integration of Microsoft OneNote Class Notebook as a free option for an electronic laboratory notebook (ELN) in CUREs. ELNs serve as digital counterparts to traditional paper lab notebooks, offering advantages such as enhanced data integration, searchability, and collaboration capabilities. In CUREs, the use of an ELN can enhance the quality and frequency of student entries by improving student and faculty

access to the notebook and increasing the efficiency of faculty feedback. This session will discuss the benefits and potential drawbacks of OneNote Class Notebook as an ELN, as well as methods for optimizing student engagement with the notebook. Attendees will leave with the ability to set up and use a OneNote ELN in their CUREs.

Integrating CURES, Traditional Undergraduate Research, and Scholarship of Teaching and Learning to Engage Students and Improve Pedagogy

Chad Hallyburton and Marian Da Costa Western Carolina University

Course-Based Undergraduate Research (CURES), traditional mentored undergraduate research, and Scholarship of Teaching and Learning (SoTL) are most often pursued as separate areas of focus, but when combined, they can have a synergistic effect on student engagement and pedagogical advancement. Additionally, this three-pronged approach can lead to more efficient utilization of instructor/researcher time and resources. In this presentation Chad Hallyburton, a Teaching Assistant Professor at Western Carolina University, will share the story of his journey into CURES, traditional undergraduate research, and SoTL, and how this journey has improved his pedagogy, built strong learning relationships with undergraduate research students, enhanced student engagement in traditional lecture courses, created service learning opportunities, and revitalized his 28-year (and counting!) teaching career. Importantly, as a non-tenure track educator without traditional academic research requirements, Chad will argue that combinations of CURES, traditional undergraduate research, and SoTL can be employed by just about anyone to improve their instruction.

The Trifecta of Course-Based Undergraduate Research, Scholarship of Teaching and Learning, and Traditional Undergraduate Research: Finding the "Sweet Spot"

Chad Hallyburton, Marian Da Costa, and Dezirae Rodriguiz, WCU

The fast-paced nature of academic life presents many exciting opportunities to explore new ways of working effectively, but our full schedules often prevent us from exploring those chances for professional growth. This presentation will share the experiences of a fixed-term faculty member without allocated research time, who integrates various research modalities (CURES, Scholarship

of Teaching and Learning, Traditional Undergraduate Research) to improve course content while boosting student engagement and learning, all while maintaining a healthy 40-hour work week. We'll discuss a project that leverages faculty collaboration, introduces pre-Nursing students to research in their professional area, and has positively impacted student knowledge, attitudes, and confidence in the area of healthcare worker vaccine decision-making. We'll also talk about how you can build similar projects to improve your teaching without sacrificing the work-life balance.

The Influence of Undergraduate Research Courses on Student Engagement and Critical Thinking

Jessica Han and Pameeka Smith-Pearson, North Carolina A&T State University

Undergraduate research (UGR) serves as a driving force behind student success, facilitating advanced program admissions and bolstering retention rates within STEM fields. By providing students with hands-on research experiences, UGR plays a pivotal role in fostering engagement and refining critical thinking abilities. However, UGR opportunities are often scarce in minority institutions due to their focus on teaching or limited funding from faculty research labs. At North Carolina Agricultural and Technical State University, a decade-long effort has resulted in the successful integration of a sophomore-level UGR course (BIOL 200) into the biology curriculum. This course exposes students to both wet and dry bench research, nurturing a comprehensive understanding of scientific inquiry and the application of innovative strategies to tackle real-world problems. The two primary objectives of this Course-based Undergraduate Research Experience (CURE) are to enhance student engagement and elevate critical thinking skills.

To evaluate the effectiveness of these objectives, we employed the C.R.E.A.T.E. Method, pioneered by Hoskins et al. (2011), to promote higher-order thinking according to Bloom's Taxonomy. The impact of the C.R.E.A.T.E. method was assessed through journal presentations and final project presentations. Results demonstrated significant improvements in students' critical thinking skills, particularly evident in literature review exercises.

Furthermore, student success was evaluated using Bloom's Taxonomy, CURE surveys, and pre- and post-knowledge-based tests. The findings indicated noteworthy enhancements across various cognitive domains, encompassing comprehension, analysis, application, and evaluation. Upon

completing the course, most students reported increased confidence in their research capabilities, with many expressing a desire to pursue further studies within scientific disciplines. The insights gleaned from the implementation of UGR not only foster individual student growth but also highlight the potential for faculty to seamlessly integrate teaching and research, thereby enriching the educational landscape through UGR initiatives.

Our Bodies have Stories to Tell: Integrating applied theatre as research method in the college classroom.

Lalenja Harrington, UNC Greensboro

Since 2019, I have been using applied theatre as a research method in my undergraduate honors class, through the CURE framework, to explore themes of inclusion, disability justice, and environmental Justice. Applied theatre, specifically Devised theatre, Theatre of the Oppressed and Playback theatre have proven to be transformative vehicles for eliciting embodied data AND providing students with an impactful and often unfamiliar mode for making meaning and doing research. This presentation will provide it's audience with an overview of the evolution of CURE design using arts-based research methods, including the navigation of IRB requirements, course insruction/activity timelines, data creation, analysis and representation, as well as student feedback on the CURE process.

"The CURE-M Program" a Course-based Undergraduate Research Experience Institute with Culturally Responsive Mentor Training at Two HBCUs

Anna Lee, Millie Worku, and Geleana Alston, North Carolina A&T State University, and Sherrice Allen, Kacey DiGiacinto, Andre Stevenson, and Margaret Young, ECSU

One factor that heavily influences underrepresented students' pursuit of a PhD is obtaining undergraduate research experience. Course-based Undergraduate Research Experiences (CUREs) have been shown to substantially increase students' learning and understanding of complex material while making scientific research more inclusive. Mentoring also plays a major role in the success, persistence and recruitment of students into research-related career pathways. Unfortunately, most faculty lack formal training in mentoring and building successful mentoring

relationships. Therefore, we designed and implemented the CURE-M training workshop that included a CUREs Institute, Culturally Responsive Mentor (CRM) training, and a “Removing Barriers to Undergraduate Research” video series. The training was conducted in partnership with two Historically Black Colleges and Universities (North Carolina A&T State University and Elizabeth City State University).

Lessons Learned: Majors and non-majors Tiny Earth implementation

Stephanie Mathews, NCSU

Tiny Earth is a curriculum that centers on students isolating and identifying bacteria from soil that produce antibiotics. This crowd-sourcing antibiotic-discovery CURE is adaptable and can be used in a variety of classrooms from high school biology labs to majors-upper level elective courses. This talk will introduce the Tiny Earth CURE curriculum and explain two different implementations of Tiny Earth: 1) lab for a non-majors pre-health microbiology course and 2) majors inquiry-based lab course. The presentation will also highlight implementation success and barriers for each type of course.

Administrative Buy In, Not What You Say But How You Say It

Troy M Purdom, North Carolina A&T State University

Administrators are keen to support faculty involving undergraduates within the research process while acknowledging the benefits for students and the university. However, often there is a stopgap in obtaining resources to support faculty to facilitate this endeavor. Therefore, faculty have the opportunity to evaluate effective communication strategies to encourage the realignment of administrative resources to increase the frequency of inquiry-based learning amongst the undergraduate population. The NIH and other federal funding agencies describe research as a high impact activity and have allocated &get;\$100mil in faculty training grants to support these efforts. Understanding the global impact of inquiry-based learning to influence the entire learning model in secondary education, elevating unrealized student potential as well as downstream research activities benefits the entire campus community in the form of increased extra-mural funding, elevated career trajectory, alumni donations, and more. However, internal seed grants to support

both faculty and students in this designated “high impact activity” are lacking, which will require a top-down approach to ubiquitously align both university policy, curriculum, and faculty to increase the reach of such activities to the student body.

Group-based CUREs in a Psychology Research and Statistics Sequence

Candalyn Rade and Mark O'Dekirk, Meredith College

In this presentation we will discuss the design and implementation of CUREs within a Psychology Research Methods and Statistics two-course sequence. Across each semester, students engaged in collaborative group-based research projects on a self-selected topic of interest. Student projects are scaffolded to correspond with the course material and executed in their respective research, mirroring the four-step CURE pedagogical framework (McLaughlin & Coyle, 2016). Specifically, (1) students are taught new psychological science methods and analysis techniques, (2) develop a research hypothesis and design a study to test their hypothesis, (3) collect and analyze data, and (4) communicate their findings through a written report and/or presentation. This CURE approach is replicated in the second semester, building with more advanced methods and analyses each time, including survey design and implementation, experimental designs, and use of secondary big data. Additionally, some students have gone on to work with their group to present their findings at the on-campus research day and regional conferences.

Our CUREs across the two-course sequence facilitates student engagement in the research through the self-selection of a topic of interest. Additionally, learning objectives are met related to conducting ethical research using Institutional Review Boards, research writing, professional communication and collaboration skills, and project management transferrable skills. We will present the design of each CURE used across our two-course sequence, integration into the curriculum and learning objectives, barriers encountered, and strategies for successful implementation.

Introducing Undergraduates to the Journal Article

Rohit Singh, UNC Greensboro

In this presentation, I provide an overview of various practices and techniques I use to introduce undergraduates to using journal articles. I will go through some of my technique of how I teach students to understand what makes something a peer-reviewed journal article, how to find journal articles, and how to write a review of a journal article. Bringing in examples of student work, I will show I access students' abilities to write journal article reviews.

CUPA-CURE: An adaptable, computational biology research experience

Amanda Storm, Western Carolina University, and Amanda M. Hulse-Kemp, USDA

The Cotton Uncharacterized Protein Annotation (CUPA) CURE engages students in an authentic research experience in collaboration with the USDA-ARS that builds bioinformatic research skills and contributes to the ongoing functional characterization of the cotton genome by manually annotating cotton proteins of unknown function. Students use sequence and structure analysis tools along with public databases and literature to perform initial annotation of functional features in uncharacterized proteins which make up ~13% of the cotton genome. Additional insight can be gained by studying multiple members of a protein family and identifying family-wide features as well as unique diversification within subfamilies. Computational CUREs have an advantage of adaptable modality and increased accessibility that minimize barriers to participation, of particular importance for underserved populations. This CURE has been taught by multiple instructors as an in-person capstone, an online summer course, an independent study research project and a biochemistry lab. In pre/post-surveys, students reported an increase in confidence in practical bioinformatics skills, attitudes about research, and in their ability to complete independent research. Interested students have the opportunity to refine their work for submission as a micropublication article and publications are further indexed in the CottonGen database for public data curation.

Implementation of CUREs in Chemistry Labs with Support of the CUR Transformations Project

Jerry Walsh, Dan Christen, and Pradyumna Pradhan, UNC Greensboro

UNC Greensboro was one of 12 institutions chosen to participate in the NSF-funded CUR Transformations Project of the Council of Undergraduate Research to implement and evaluate CUREs across all four years of the undergraduate curriculum in chosen disciplines. Each institution proposed two departments to be the focus for their development work. UNC Greensboro's departments were biology and chemistry. Two consultants were assigned to each department. The four-year project began with development of action plans and an implementation timeline. For chemistry, two lab courses that already contained research components enhanced their CURE through incorporation of more definitive research questions for the students and more formal reporting components. The CUREs in the department were then expanded to include additional upper level courses and in limited sections of the general chemistry lab. The added courses had a connecting theme in the sense that the CURE projects involved water quality analysis. A focus for water samples for each course was the water from a pair of wetlands that had recently been built on the UNCG campus as outdoor classrooms for UNCG courses and for outreach projects. At the general chemistry level, commercial test kits and experimental probes were tools used in the analysis. Instrumental analysis labs used instruments that were already key components of the curriculum such as ion selective electrodes, atomic emission of metals, and LC-MS analysis. A senior level biochemistry lab also joined the ranks of lab-based CURE projects by implementing DNA profiling of bacteria from various water sources including the wetlands. The implementation methods, effectiveness, and assessment of the CURE programs in the various courses will be presented.

Engaging Students Learning Through Community Engaged Citizen Science Research

Tobin N. Walton, Anderson Bean, and Stephanie Teixeira-Piot, North Carolina A&T State University

This project involved a collaboration led by three NC A&T Faculty members, four undergraduate Sociology students enrolled in a Sociology Internship course, and three community-based organizations. The students were assigned to be research interns with the three faculty members.

Through their internship the students worked closely with the faculty to engage with the community-based organizations over the course of the Spring 2022 academic semester and execute a qualitative research design aimed at identifying the research needs of the organizations. Informal meetings and conversations were had with leaders within the organizations and formal focus group sessions with them as well. Students were trained on key elements of effective community engagement and qualitative social research. They participated in all aspects of this community-based research project including scheduling and attending meetings with the organizations, completing a training tutorial on citizen science, developing focus groups scripts, analyzing focus group data, and presenting the research findings back to the project team and community organizations. This experience culminated with the students collaborating to complete a final report and presenting some of the results of their work at the NC A&T SU, Hairston College of Health and Human Sciences annual Health Equities Symposium.

Since Spring 2022 semester, members of the research team have maintained relationships with each of the organizations and have worked closely with one organization in particular that is focused on housing and development in underinvested communities around NC A&T SU's campus. Through this collaborative partnership the team has developed and implemented a co-created community-based citizen science project that is custom designed to meet the organization's research needs. The goal of this co-created community-based citizen science project is to empower the residents of these communities to have their voice heard. The objectives are to gather information directly from residents across several neighborhood regarding their concerns as it relates to housing (vacant and decrepit, homes, buildings, and lots), transportation, and public spaces in their communities. Information is being shared back to the community-based organization partner which has been able, in turn, to share this information back out to neighborhood residents and act on their concerns through connecting residents with needed resources and alerting city officials and others to the needs in the community.

The Value of Process for Course-Based Undergraduate Research in the Humanities

Karen Weyler, UNC Greensboro

Most published research into CUREs has been in the sciences and mathematics. Translating this scholarship into the humanities offers some challenges, given that humanities disciplines typically do not have the labs or research teams found in those fields. The humanities have always offered research experiences, usually in the form of the traditional research paper, but these kinds of assignments present increasing challenges for both professors and students, particularly with respect to process and utility, both of which are under threat from AI, plagiarism, and public skepticism about the value of the humanities.

CURES in the humanities offer students the opportunity for what Lisa Mastrangelo calls “‘slow research’—slow and careful analysis of documents, the search for information not readily available, and extrapolation of information based on obscure textual clues” (32). “Slow” is a key term here, as it is allied to metacognition in a scaffolded project. These kinds of projects also promote “deep attention, which N. Katherine Hayles defines as “the cognitive style traditionally associated with the humanities, is characterized by concentrating on a single object for long periods (say, a novel by Dickens), ignoring outside stimuli while so engaged, preferring a single information stream, and having a high tolerance for long focus times. Hyper attention is characterized by switching focus rapidly among different tasks, preferring multiple information streams, seeking a high level of stimulation, and having a low tolerance for boredom” (187).

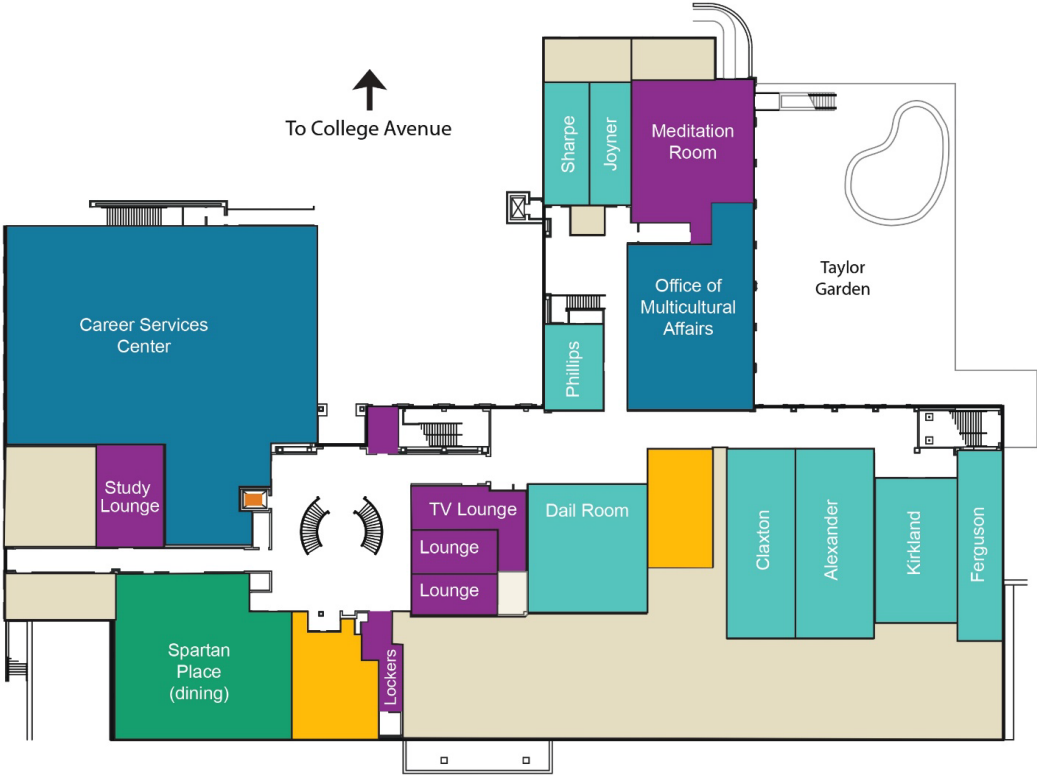
In this presentation, I will model ways that professors can integrate CURES into humanities courses, using my English 372: Early American Literature course as an example.

Accessing the minds of the neurodivergent through diverse CURE based learning

Richard Allen White III, UNC Charlotte

Accessibility is an ongoing challenge in the classroom, with 15-20% of students estimated being neurodivergent. Hands-on group-based project learning provides general experiences to all but provide highly useful training for the neurodivergent to thrive in the classroom. Eliminating distractions and active learning in groups appear to rapidly reinforce knowledge in neurodivergent individuals. While more much research is needed to be done to be more equitable these CURE based tools allow an enlightening experience neurodivergent.

MAP OF EUC (GROUND FLOOR)



EUC Ground Floor

- Meeting Spaces
- Vendors
- Offices
- Student Spaces
- Restrooms
- Elevators
- Staff areas