

# Undergraduate Research Curriculum Development Project (URCDP)

*NCSDAA & NCACCIA Joint Conference  
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Associate Professor, Psychology CPCC

**Dr. Heather Woodson**

Vice President for Academic Affairs, Gaston College

# Who is Here?



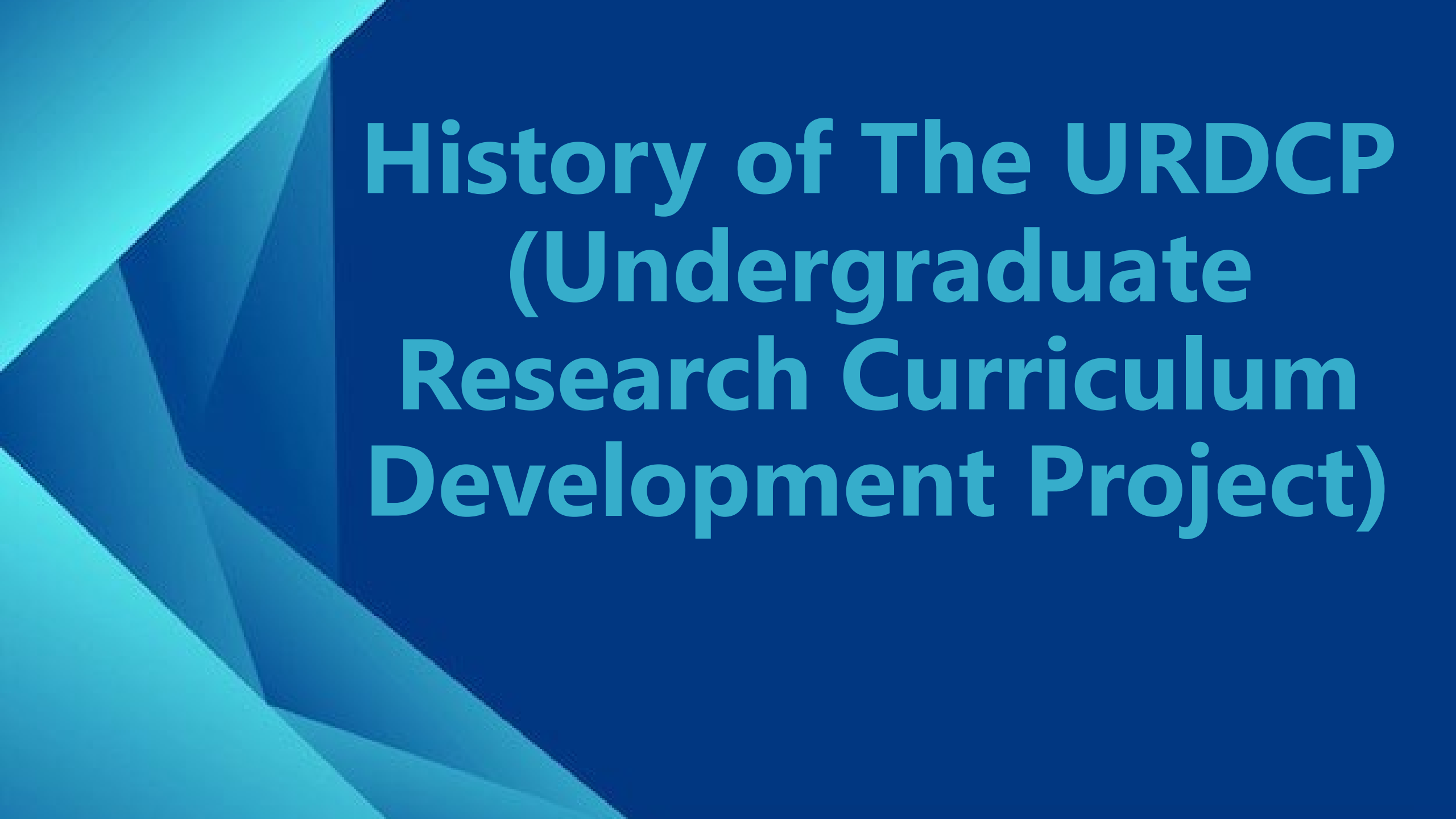
Name, Title & College



Is your College Involved in Undergraduate Research?



What is your Definition of Undergraduate Research?



# **History of The URDCP (Undergraduate Research Curriculum Development Project)**

# URDCP Goals

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1. Increase access to the high-impact practice of undergraduate research to a broader, more diverse range of students within the NCCCS to prepare them for transfer and/or career entry.
2. To develop curriculum for community college students that introduces the research methods, concepts, and skills necessary for engaging in undergraduate research.
3. Develop support for UR throughout the CC system and our University Partners.
4. Grant provided to NC CC System office and Forsyth Tech from NC State Space Grant to develop Modules and Professional Development for faculty using the modules.

# URDCP History

- How we got started- This is not a New "thought".
  - 2018-Grant to Work with 4-year partners
    - Expose our students to Social Science Research
  - Work with Stem Fellows and Honors Programs
  - Proposal discussion with the NCCC System Office
- URDCP Group Formation
  - Research Modules
  - Gain support from the Great 58
  - Partnership with 4-year Institutions
  - Support to send through Research course

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**What Have We Been Doing?**

# Everyone involved in the URCDP (22)

## Asheville-Buncombe Technical Community College

- Josh Harris

## Blue Ridge Community College

- Megan Clark

## Brunswick Community College

- Kimberly Greenwood Jones

## Caldwell Community College and Technical Institute

- Denise Williams (URDCP Board Member)

## Catawba Valley Community College

- Laura Benson

## Central Piedmont Community College

- Amber Griffin
- Carole Ingram
- Marsi Franceschini
- Deninne Pritchett (URDCP Board Member)

## Craven Community College

- Debbie Audilet

## Davidson-Davie Community College

- David Ring (URDCP Board Member)
- Joseph Dale Wilson

## Durham Technical Community College

- Kathy Zarilla (URDCP Board Member)

## Fayetteville Technical Community College

- Dottie Covey-Elleby
- Shandrika McNair (URDCP Board Member)
- Annette Webster

## Forsyth Technical Community College

- Amanda Davis
- Becky Howell (URDCP Board Member)
- Holly Ramey

## Gaston College

- Bianca Yavelak
- Dawn Marin (URDCP Board Member)
- Heather Woodson (URDCP Board Member)
- Patricia Williams (URDCP Board Member)
- Hisayo Tokura-Gallo
- Kristin Kelly

## Guilford Technical Community College

- Tom Hancock

## Mayland Community College

- Sherry Sherman (URDCP Board Member)

## Rockingham Community College

- Timothy Blake

## Rowan-Cabarrus Community College

- Caroline French (URDCP Board Member)

## Sandhills Community College

- Beth Bockoven

## System Office

- Michelle Lair

## Vance-Granville Community College

- Andrew Pais
- Frankie K. Frink

## Wake Technical Community College

- Jackie Swanik (URDCP Board Member)
- Lisa McManus

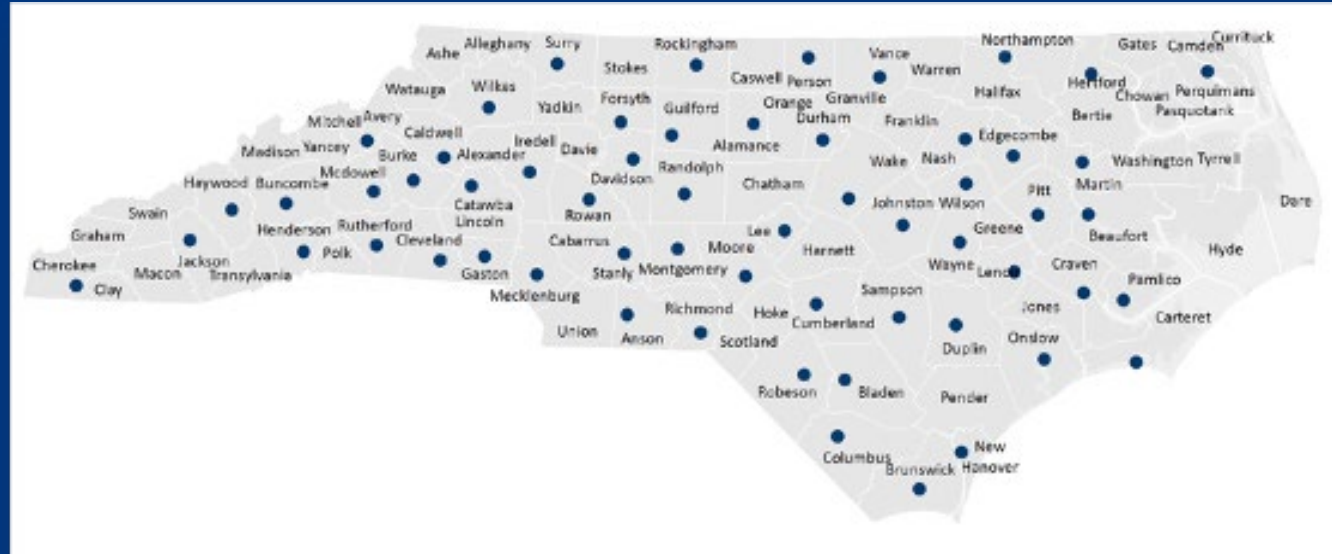
## Wayne Community College

- Brian Duffy (URDCP Board Member)

## Western Piedmont Community College

- Stacey Johnson (URDCP Board Member)

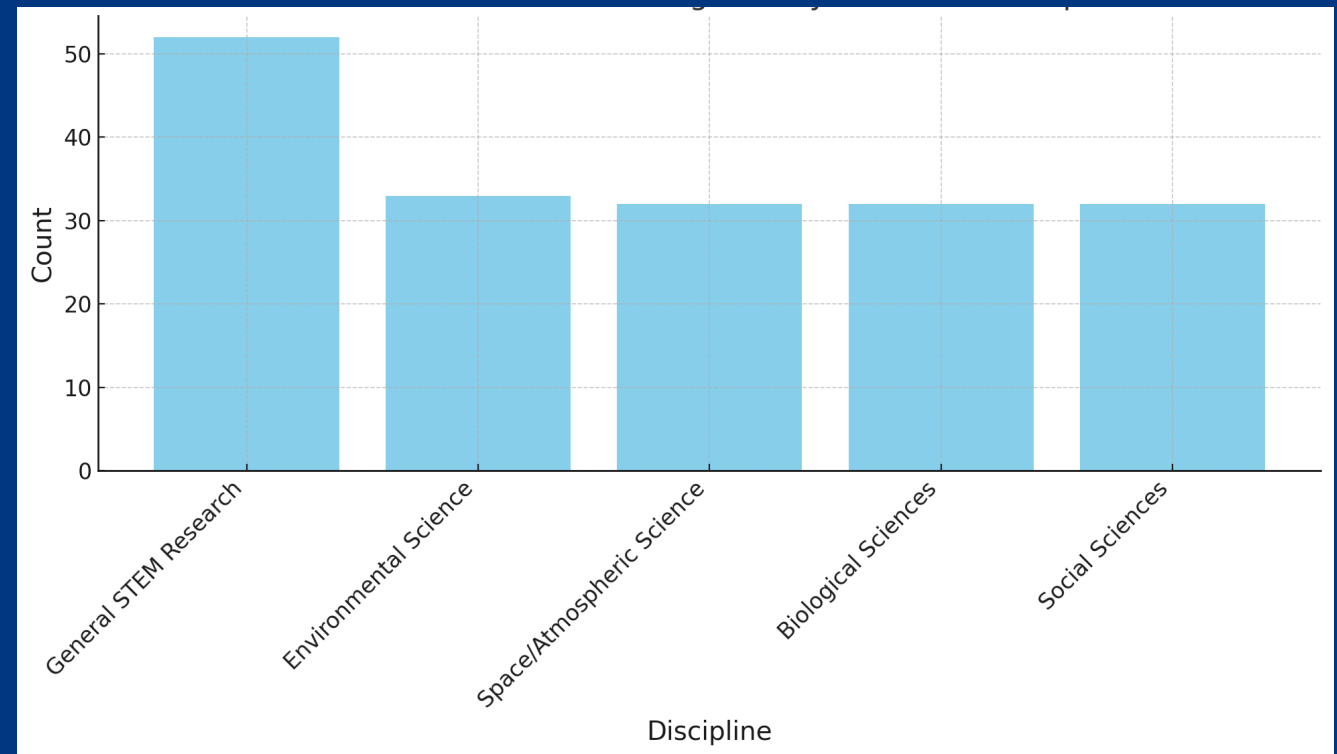
Asheville-Buncombe Technical Community College  
Blue Ridge Community College  
Brunswick Community College  
Caldwell Community College and Technical Institute  
Central Carolina Community College  
**Central Piedmont Community College**  
Craven Community College  
Davidson-Davie Community College  
Durham Technical Community College  
Fayetteville Technical Community College  
**Forsyth Technical Community College**  
**Gaston College**  
Halifax Community College  
Mayland Community College  
Pitt Community College  
Rowan-Cabarrus Community College  
South Piedmont Community  
Tri-County Community College  
Vance-Granville Community College  
Wake Technical Community  
Wayne Community College  
Western Piedmont Community College





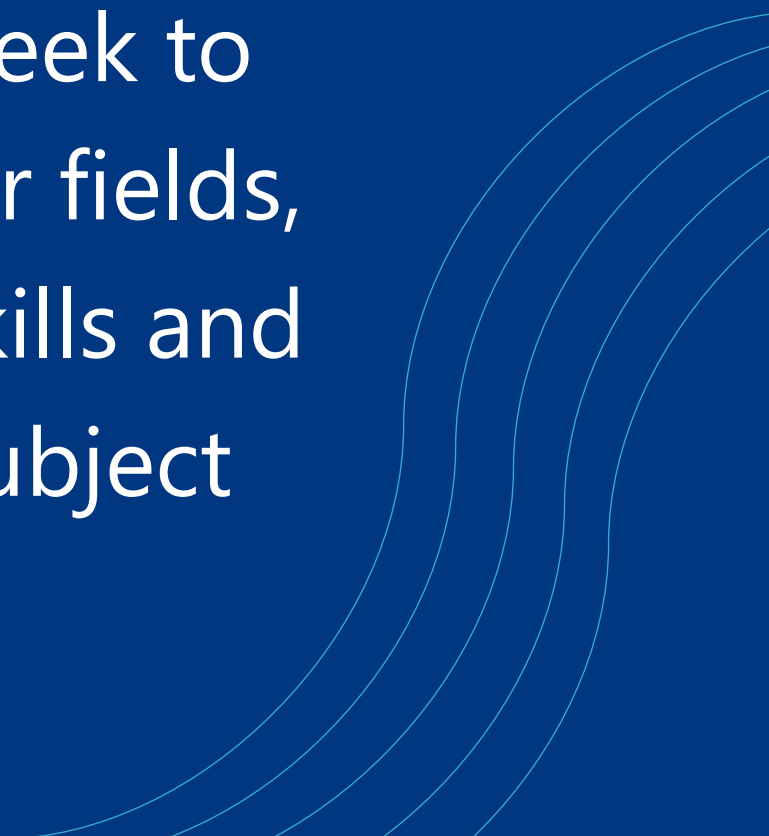
# NC Community College Students Involved in UR

- **19** of the **58** responded to the first survey: stating that they had students involved in some sort of Undergraduate Research.
- **22/58** involved in the URDCP
- Most responding CC's have been engaged in research for many years, but don't have a designated research program/department
- Many CC's are new to UR but want to be more involved.
- Disciplines Involved in UR



# NCCCS Definition of Undergraduate Research

Under the guidance of faculty, community college undergraduate students embark on scholarly investigations or creative projects that seek to contribute to existing knowledge in their fields, while enhancing their critical thinking skills and deepening their understanding of the subject matter.



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**What Is The Point  
Of All This?**

# Research Can Shape "Tomorrow" Today!



US, Top Schools, Ivy League, and States



Benefits of Undergraduate Research (UR)



Real-world translation/21st Century Skills



Institutions and new ways of thinking about research



Teaching and learning=Research



**It is that simple!**

# Documented Benefits of Undergraduate Research

- Undergraduate research can provide benefits of a cohort experience while **increasing discipline-specific skills, metacognitive strategies** (Santangelo et al., 2021), **scientific identity** (Boyce et al., 2023), **degree persistence** (Lei et al., 2011), and **transfer** (Higgins, 2013).
- The **mentoring** ingrained in research brings cumulative benefits associated with mentoring including **higher GPA, retention, and persistence toward degree completion and transfer** (McCartney & Colon, 2023).
- Through this process of discovery, students **make** sense of ideas about the natural world and **apply** them to new questions to **generate** new knowledge (Birzina et al., 2023).

# What's happening at our institutions?



CPCC



Forsyth Tech



Gaston College



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**Where Do We Go  
From Here?**



# Module 1A Introduction to Research

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## Module Title:

Introduction to Research

## Module Introduction

Welcome to the Introduction to Research Module. This module is designed to provide an introduction to research and its key concepts. Whether you're a beginner, have prior knowledge, or a Principal Investigator this module will offer valuable insights and practical applications that you can use in both academic and real-world contexts. In this module, you will explore a range of topics that will provide you with a deeper understanding of research. The module has been structured to guide you through the material step by step, with clear explanations, practical examples, and activities to reinforce your learning.

Research is a systematic and methodical investigation aimed at acquiring knowledge, understanding, or solving a problem. It involves collecting and analyzing data, often through experiments, surveys, or case studies, to arrive at conclusions or recommendations. The primary purpose of research is to advance knowledge and understanding in a particular field, discipline, or industry. Research can also inform decision-making, improve practices, and solve complex problems.



## Module Learning Outcomes

- 1. Understand What Research Is and Why It Matters**
- 2. Develop Research Skills**
- 3. Apply the Scientific Method**
- 4. Identify a Problem/Gap**
- 5. Research Question and/or Hypothesis**
- 6. Explore Theoretical Foundations/Conceptual Frameworks**
- 7. Conduct a Literature Review**
- 8. Compare Research Practices Across Various Disciplines**
- 9. Explain the Importance of Replicability and Peer Review**
- 10. Model Research Ethics and Integrity**
- 11. Demonstrate Critical Thinking Skills**
- 12. Citations, Formatting, and References**
- 13. Design an Original Research Study**

## Learning Objectives

By the end of this module, you will be able to:

1. Define Research
2. Understand the Historical Context of Research
3. Apply the Scientific Method
4. Explore Key Steps in the Research Process
5. Identify a Research Problem or Gap
6. Investigate Research Practices in Various Disciplines
7. Analyze Discipline-Specific Considerations
8. Understand the Importance of Replicability and Peer Review
9. Review Research Ethics

### Objective 1: Define Research

Understand the concept of research and articulate its significance in various fields.

#### What is Research and Why It Matters?

Research is a systematic process of inquiry that aims to discover, interpret, or revise facts, events, behaviors, or theories. It involves collecting data, analyzing it, and drawing conclusions based on evidence and can provide solutions to real-world problems by identifying issues and exploring potential solutions. Research can be used to help solve problems, make informed decisions, and advance knowledge in non-profit organizations, for-profit organizations, and any other organization you can name. It provides evidence-based information that can improve practices in fields like education, skilled trades, arts, technology, and business. Research informs policymaking, business strategies, and personal decisions by providing evidence-based insights. Overall, research enhances our understanding of the world and expands the body of knowledge across various fields.

### *Definitions*

**Impact of Research:** The influence research has in advancing science, adding to the existing literature, improving practices in different fields, and shaping policies.

**Research:** A systematic inquiry focused on expanding knowledge, solving problems, and driving innovation.

**Systematic:** In research this means designing and conducting a study in an organized way using a step-by-step process that is documented in detail. A systematic approach ensures consistency by following a clear plan.

### *Example:*

A simple example of research is to test the effect of sunlight on plants testing the hypothesis: Plants that receive 5 hours of sunlight per day will grow faster than those that receive two hours.

Another example is to understand students' experiences with online learning by asking this research question: How do students perceive the benefits and challenges of online learning?

### *Discussion*

What does research mean to you?

Share an example of a research project or paper you have engaged with or participated in and discuss its impact in the related field.

### *Application*

Encourage students to explore real-world applications of research to spark engagement and understanding.

Have students choose a research article in their field and write a reflection on how the findings impact professional practices or could solve real-world problems.

## References and Resources

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Miller, Delbert C (01/01/2003). "Introduction: Understanding Basic, Applied, and Evaluation Research." in *Handbook of research design & social measurement* (0-7619-2045-5, 978-0-7619-2045-8), (1).

Vickers, A. J. (2008). Basic Introduction to Research: How Not to Do Research. *Journal of the Society for Integrative Oncology*, 6(2), 82–85.

## Objective 2: Understand the Historical Context of Research

Explore the evolution of research practices and their impact on current methodologies.

### Evolution of Research Practices


Research practices have evolved significantly over time. In ancient times, inquiry was often based on philosophical reasoning and observation. The scientific revolution in the 17th century introduced systematic experimentation and the scientific method, laying the groundwork for modern research practices. Over the years, research has become more specialized, with distinct methodologies emerging in various disciplines. The evolution of research practices is an important topic for students as it provides context for how current methodologies have developed over time. Understanding this evolution helps students appreciate the foundations of modern research and the reasons behind various practices and ethical standards.

The increasing use of technology and the internet transformed research practices.



# **Why the Work Matters and Overcoming Challenges**

# Benefits for Colleges

- Funding opportunities
  - Improve institutional outcomes, such as:
    - Enrollment
    - Course success
    - Retention
    - Completion
  - Recognition for college
- 

# What are the “On Ramps” To Expand Our Efforts

## *Next Steps-Going Forward*

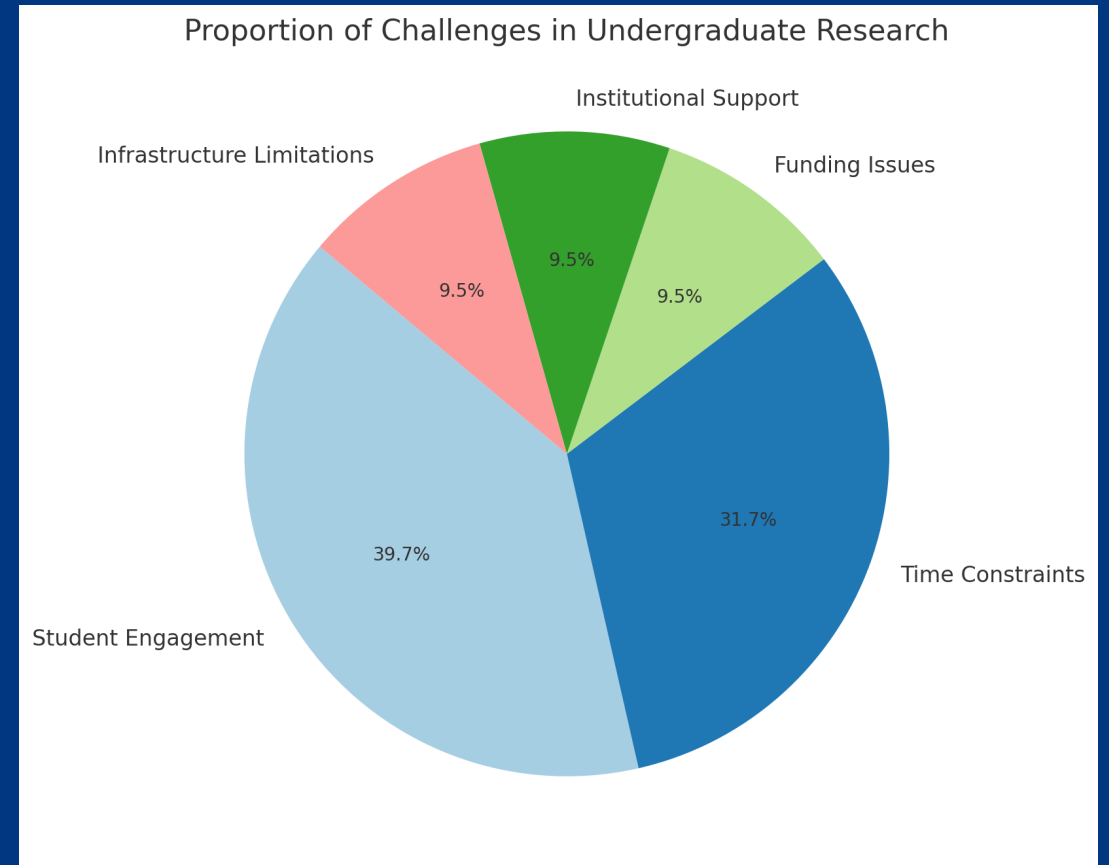
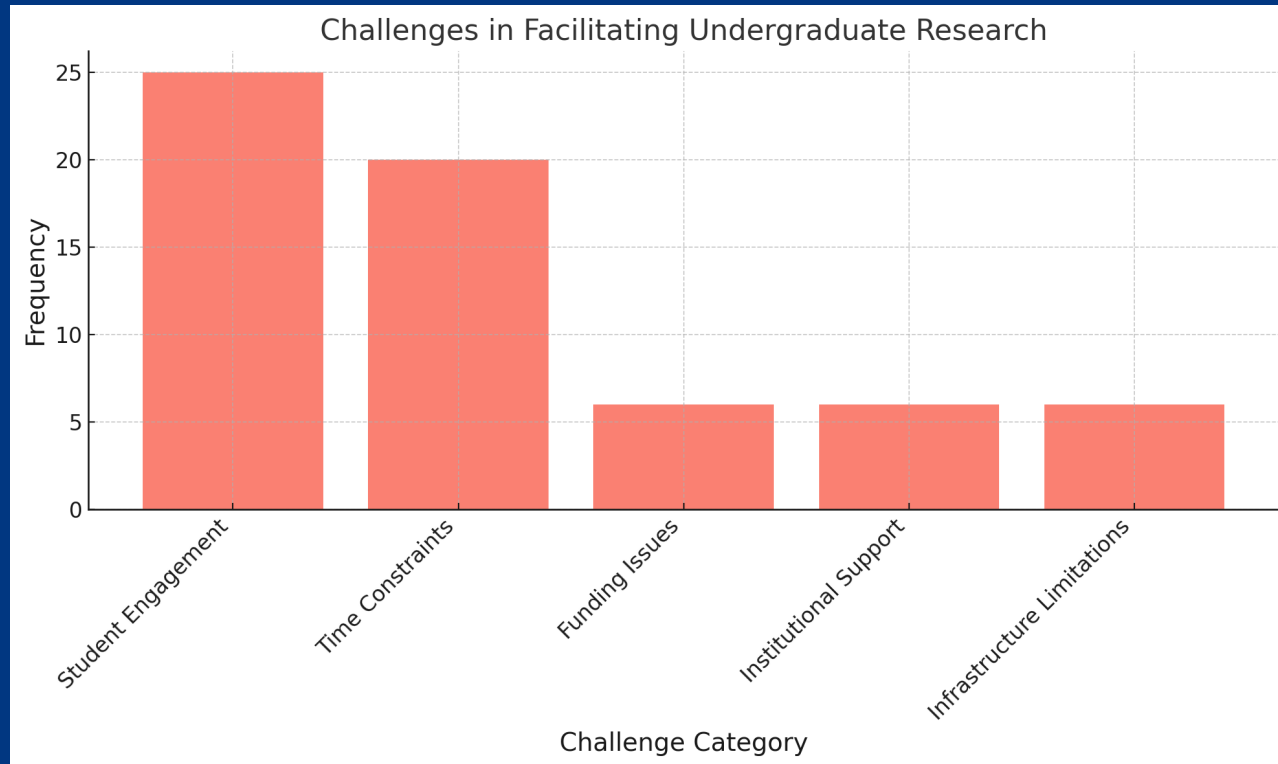
### **For Faculty**

- Provide mentorship
- Workshops
- Seminars
- Explore opportunities through direct outreach to professors in your field.

### **Curriculum**


- Create a full course for Community College students
- Utilize the modules in current courses (any discipline)

# Challenges We Face?






# Resources We Need

- Equipment
  - Travel funding for students & faculty
  - Compensation for faculty (stipend, release time, etc.)
  - Recognition for faculty mentors
  - More opportunities for student engagement (i.e., conferences)
  - Professional development for faculty
  - Support from college leadership
- 

# How Can Administrators Help?

- Share with current faculty (NCCCS website will be active in the next few weeks)
  - Faculty compensation, as able/allowable
  - Reallocation of resources, as able/allowable
  - Hire innovative faculty
  - Offer time and praise
- 

# Opportunities for Students to Present Research Skills

## **SNCURS 2025**

- In the fall each year
- Hosted by Elon
- Co-sponsor Forsyth Tech

Saturday, November 15, 2025

## **NCUR 2025**

- In the spring each year
- Pittsburgh, PA

April 7-9, 2025

## **Discipline-specific Conferences**

## **Research & Creativity Symposiums at Each Individual College**

# Survey Time



<https://forms.office.com/r/71jiZicnBh>

# Questions?





**Thank You!**

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