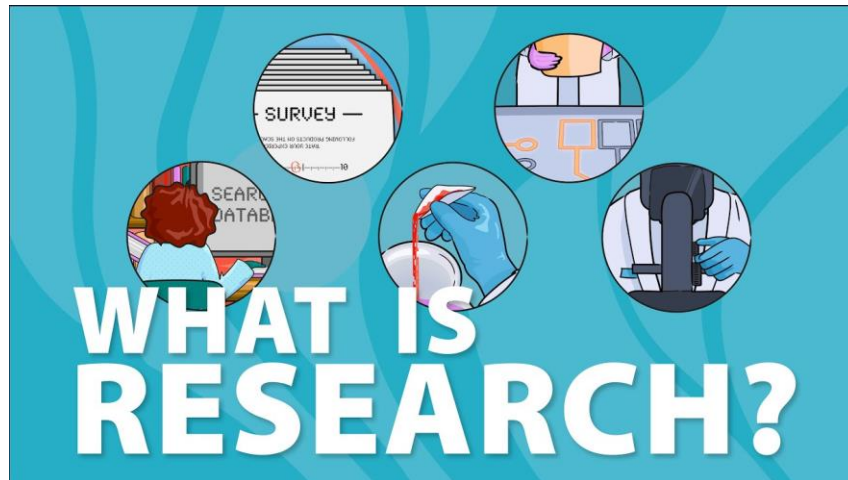


## STS 205: Intro to Research Methods



**Monday/Wednesday 8:30-9:50**  
**Class Location: FMH 412**

**Facilitator: Dr. Theresa Hunt**

Email: [thunt@njit.edu](mailto:thunt@njit.edu)

Office: 115 Cullimore Hall

Office Hours: by appointment

Prerequisites: HUM 101 and 102 or equivalent

### **Course Description:**

This course is intended to give first and second year undergraduate students an understanding of what research is, what it is used for, how it is conducted, and how it is reported. It provides an overview of applying the scientific method to real-life research, including ethical concerns, qualitative and quantitative methods (and how and when they should be used), and how to critically evaluate published research findings. Students work with faculty mentors on research projects, while writing proposals for the support of future research.

### **Learning Objectives:**

By the end of this course students will be able to:

- Identify a research problem
- Identify and mitigate ethical issues associated with a research project
- Conduct a thorough literature review and critique published research
- Develop research questions and hypotheses
- Determine which type of data is most appropriate to answer the research questions
- Assess multiple formats for organizing, developing, and presenting research
- Develop a research network and understand how to communicate with faculty, graduate students, peers, etc. about research

### **Required Readings:**

Excerpts from the following text, as well as several other articles and book chapters available on Canvas, will be assigned periodically throughout the class:

Bhattacharjee, Anol (2012). *[Social Science Research: Principles, Methods, and Practices 2e.](#)*  
Tampa: University of South Florida. ISBN: 9781475146127

### **Course Requirements:**

#### **Research Project: 55%**

- Peer Review Activities 5%
- Presentation 10%
- Final Draft Poster 15%
- Final Draft Proposal 20%
- CITI Responsible Conduct in Research Cert 5%

#### **Lab Practicum Faculty Mentor Evaluation: 15%**

#### **Assignments: 15%**

#### **Classwork, Check-Ins, and Attendance: 15%**

**Late Paper Submissions:** Papers and other tasks will lose one grade for every day late (A to A-, A- to B+). Assignments will not be accepted more than 1 week late.

**Paper Formatting:** All papers should be typed, double-spaced, 12 pt standard font (Times, Helvetica, Arial, etc), 1" margins. For digital submission, only the following file types are accepted: pdf, doc, docx.

**Grading Scale (for assignments only, course grades will not include: A+, A-, B-, C-, D+):**  
96-100:A+; 93-95: A; 89-92: A-; 86-88:B+; 83-85:B; 79-82:B-; 76-78:C+; 73-75:C; 69-72:C-  
66-68:D+; 60-65:D; 0-60: F

### **Academic Integrity:**

Students are expected to follow the University Code on Academic Integrity. Plagiarism will not be tolerated. All cases of suspected plagiarism/cheating will be reported for investigation. For details, see: <http://www.njit.edu/academics/integrity.php>

### **Technology Rules and Participation Expectations:**

Students may use technology (ie laptops, tablets, phones) in this course for class-related activities only. Texting, playing games, etc. interrupts the flow of discussion, distracts other students, distracts instruction, and is therefore not allowed. During our conversations in class, students are expected to be **actively engaged**, and various methods will be employed to assess engagement throughout the semester. Use of LLMs such as ChatGPT to complete assignments should be done with extreme caution. We will be using the platform to experiment with ethical issues in primary research. However, having ChatGPT complete assignments for you and attempting to claim they are your own original work is grounds for failure of this class, as well as disciplinary action for violating NJIT's academic integrity standards.

### **Students with Learning Differences:**

Students who have special needs should contact NJIT's Student Disability Services to help

procure accommodations in completing coursework. The center can be found at <http://www.njit.edu/counseling/services/disabilities.php>.

## **Course Schedule – Subject to Change as Needed**

### **Week 1: Introduction**

1/22: Course Intro & Overview

### **Week 2: Research Foundations**

1/27 – Required Reading: [Bhattacharjee](#), Chapters 1-3

1/29 – Required Reading: [Bhattacharjee](#), Chapters 4-5. **Assignment 1: Bio-sketch due**

### **Week 3: Mentor Talks**

2/3 – Mentor Visit: [Dr. Margarita Vinnikov](#)

**Class meets on Zoom**; link to be distributed via email 1/31

2/5 – Mentor Visit: [Dr. Allison Edgar](#)

**CITI Certifications Due by 5 PM on Friday, 2/7**

### **Week 4: Research Talks**

2/10 –Guest Lecture: [Dr. Shawn Chester](#)

2/12 –Guest Lecture: [Dr. Julia Hyland-Bruno](#)

**Assignment 2: LOI due by 5 PM on Friday, 2/12**

### **Week 5: Initial URE Conferences**

2/17 – Groups 1-2

2/19 – Groups 3-4

### **Week 6: Ethics & Building a Research Network– MEET IN CLASSROOM**

2/24 – Preparing for Practicum & On-Campus URI Opportunities

Required Reading: [Barwich](#), “The Value of Failure in Science”; [Eise](#), “What Institutions Can Do To Improve Science Communication” ; Choose a project of interest from the [2023 URI Symposium Book of Abstracts](#) & be ready to summarize it during class!

2/26 – Meet in VanHouten Library

### **Week 7: Lab Practicum**

March 3-5: Mentor Practicum; schedule and assignments TBD

**Check-in #1 due Friday, March 7 by 5 PM**

### **Week 8: Lab Practicum**

March 10-12: Mentor Practicum; schedule and assignments TBD

**Assignment #3: Methods in My Field Due by 5 PM on Friday, March 14**

Week 9: SPRING BREAK - March 17-19

### **Week 10: Lab Practicum**

March 24-26: Mentor Practicum; schedule and assignments TBD

**Check-in #2 due Friday, March 28 by 5 PM**

### **Week 11: Research Proposal Workshop**

3/31 – Required Reading:

- [Sample Research Proposal 1 \(with comments\)](#)
- "[Organizing Your Social Sciences Research Paper: Writing a Research Proposal.](#)" University of Southern California Libraries, Jan. 15, 2019.
- "[How To Prepare a Research Proposal.](#)" Al-Riyami, *Oman Medical Journal* 2008 PMID: [22379539](#).

4/2: In-Class Working Session: Draft Ideas

### **Week 12: Poster Workshop**

4/7 – Required Reading: "[Preparing and Presenting Effective Research Posters.](#)" Miller, *Health Services Research* 2007.

4/9: In-Class Working Session: Draft Ideas

### **Week 13: Lab Practicum**

April 14-16: Mentor Practicum; schedule and assignments TBD

**Check-in #3 due Friday, April 18 by 5 PM**

### **Week 14: Lab Practicum**

April 21-23: Mentor Practicum; schedule and assignments TBD

**Check-in #4 due Friday, April 25 by 5 PM**

### **Week 15: Project Presentations**

4/28 – Session 1

4/30 – Session 2

### **Week 16: Conferences and Submit Final Work**

**Final Proposal and Poster Due by midnight on Friday, May 9**