

STS 205-001: Introduction to Research Methods

W/F 8:30 – 9:50 AM

CKB 315

Instructor: Dr. Regina Collins

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Office: Fenster 479

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.

There will be **some Fridays** during the semester when class will meet virtually to host a faculty guest lecturer. This will be announced in advance with an email link sent out as confirmation. Please be sure to check your emails in advance. During guest lectures, you will be expected to:

- Have your camera on and be present
- Listen attentively to the guest speaker
- Ask questions/engage with the guest speaker

Students who do not join the virtual meetings or who do not have their camera on for the duration of the guest lecture will be marked as absent and will receive a zero for participation that day.

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

Required Readings:

Materials for assigned readings will be provided. There is no textbook required for this class.

Course Requirements

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| • Participation | 10% |
| • Citation Chaining | 10% |
| • Research Topic Slides | 5% |
| • Interview Questions | 10% |
| • Midterm Exam | 15% |
| • Literature Review | 20% |
| • Research Proposal | 30% |

Late Assignment Submissions

Assignments will lose one grade for every day they are late (A to A-, A- to B+). Assignments will not be accepted more than 1 week late.

Grading Scale

- 90-100 = A
- 85-89 = B+
- 80-84 = B
- 75-79 = C+
- 70-74 = C
- 60-69 = D
- < 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 to the Dean of Students for investigation. For details, see <http://www.njit.edu/academics/integrity.php>

Technology Rules and Participation Expectations

Students may use technology (i.e., laptops, tables, phones) in this course for class-related activities only. Texting, using social media, playing games, etc. interrupts the flow of discussion, distracts other students, and will inevitably embarrass you when I have to call you out. During guest lectures, students are expected to be actively engaged, and various methods will be employed to assess engagement.

Students with Disabilities or Special Needs

Students who have disabilities or special needs should contact NJIT's Office of Accessibility Resources and Services to help procure accommodations in completing coursework.

Class Schedule (Subject to Change)

Week 1: Introduction and Introductions

- 9/6/2023 – Overview of the course, introductions, and “What is research?”
- 9/8/2023 – Types of Research

Week 2: Research Foundations

- 9/13/2023 – What Drives Research?
- 9/15/2023 – Research Topics and questions

Week 3: What Does Good Research Look Like?

- 9/20/2023 – Ethics of research
- 9/22/2023 – Research topic and questions due (3 slides)

Week 4: The Ethics of Research

Required reading:

- [Resnik, “What is Ethics in Research & Why is it Important?”](#)
- 9/27/2023 – Conducting a literature review
- 9/29/2023 – Research opportunities at NJIT

Week 5: Human Subjects Research

Required reading:

- [Barwich, “The Value of Failure in Science”](#)
- [Eise, “What Institutions Can Do To Improve Science Communication”](#)
- 10/4/2023 – Operationalizing Variables
- 10/6/2023 – Vocabulary of Research

Week 6: Practice Developing Survey Questions & Interviewing

- 10/11/2023 – Research Questions and Hypotheses
- 10/13/2023 – Guest Lecture: Margarita Vinnikov (VIRTUAL 9:00 AM)
<https://njit-edu.zoom.us/j/8517700857?pwd=UmxDUnpjUnl4bHhVSDh6VFJUUExOUT09>

Meeting ID: 851 770 0857
Passcode: 235725

Week 7: Guest Lecture and Midterm

- 10/18/2023 – Midterm Review
- 10/20/2023 – Research Questions due

Week 8: Designing a Research Project

- 10/25/2023 – Midterm Exam
- 10/27/2023 – Guest Lecture

Week 9: Designing a Research Project (continued)

- 11/1/2023 – Research Data
- 11/3/2023 – Writing Interview Questions

Week 9: Commercializing Research

- 11/8/2023 – Interviewing
- 11/10/2023 - Hypotheses

Week 10: Research Proposal Idea Development

- 11/15/2023 – Good literature reviews
- 11/17/2023 – Guest Lecture

Week 11: Research Proposal Research Questions

- 11/22/2023 – Funding Research
- 11/24/2023 – NO CLASS (HAPPY THANKSGIVING!)

Week 12: Research Proposal Data Collection

- 11/29/2023 – Review of Research Questions and Hypotheses
- 12/1/2023 – Guest Lecture

Week 13: Presentations

- 12/6/2023 – Case Studies
- 12/8/2023 – Guest Lecture: Dr. Yelda Semizer (**IN PERSON**)

Week 14:

- 12/13/2023 – Last class