

# Research Process & Methodology

MASY1-GC 1260 | 104 | Fall 2024 | 9/03/2024 - 12/10/2024 | 3 Credits

Modality: In-Person

Course Site URL: <a href="https://brightspace.nyu.edu">https://brightspace.nyu.edu</a>

#### **General Course Information**

Name/Title: Dr. Amy Greenstein, Adjunct Professor She/Her/Hers

NYU Email: aq9461@nyu.edu

Class Meeting Schedule: 9/03/2024 - 12/10/2024 | Tuesdays | 6:20 pm - 8:55 pm ET

Class Location: MIDC Room 1019 Loc: Midtown Center

**Office Hours:** Thursday, 5:00-6:00 PM, by appointment only. If you would like to schedule a meeting, please send an email to the instructor at least two days prior to the date you would like

to meet.

## **Description**

This course prepares students with the required research skills necessary to successfully conceptualize a research topic and to subsequently develop a proposal to research the topic. Students learn to conduct a literature review, develop a theoretical framework, develop analytical research questions or hypothesis, identify data collection methods, and prepare to analyze and interpret research findings. This course affords students the opportunity to thoroughly explore a specific business topic, as it relates to their area of study and/or professional field and develop a formal research proposal based on that topic.

## **Prerequisites**

1210 – Quantitative Models for Decision Makers

#### **Learning Outcomes**

At the conclusion of this course, students will be able to:

- Develop professional research skills such as identification of a topic, evaluation and proper use of information sources, and selection of appropriate research methodologies.
- Apply a range of qualitative and quantitative research practices
- Formulate a hypothesis or a set of research questions that address a business problem
- Prepare a proposal incorporating appropriate research methods for the Capstone project.
- Apply ethical research protocols in line with policies and procedures involving human subjects (UCAIHS)

#### **Communication Methods**

Be sure to turn on your <a href="NYU Brightspace notifications">NYU Brightspace notifications</a> and frequently check the "Announcements" section of the course site. This will be the primary method I use to communicate information critical to your success in the course. To contact me, send me an email. I will respond within 24 hours.

Credit students must use their NYU email to communicate. Non-degree students do not have NYU email addresses. Brightspace course mail supports student privacy and FERPA



guidelines. The instructor will use the NYU email address to communicate with students. All email inquiries will be answered within 24 hours.

## Structure | Method | Modality

This course is in-person and will meet once a week on Tuesday. You are expected to attend the in-person sessions and remain during the entire scheduled period. Each class session will involve lecture, class discussion, and small group (peer team) discussions to practice the content of the lessons in a collaborative environment. Much of our course content will develop experientially in class, and as a result missed sessions will be very difficult to make up. Students are expected to check and submit assignments via NYU Brightspace LMS each on the appointed date and time.

Active learning experiences and small group projects are key components of the course. Assignments, papers, and exams will be based on course materials (e.g., readings, videos), lectures, and class discussions. Course sessions will be conducted synchronously on NYU Zoom, which you can access from the course site in <a href="NYU Brightspace">NYU Brightspace</a>.

## **Expectations**

## Learning Environment

You play an important role in creating and sustaining an intellectually rigorous and inclusive classroom culture. Respectful engagement, diverse thinking, and our lived experiences are central to this course and enrich our learning community.

## **Participation**

You are integral to the learning experience in this class. Be prepared to actively contribute to class activities, group discussions, and work outside of class.

#### Assignments and Deadlines

To be considered as turned in on time, assignments should be posted electronically to the appropriate assignment link in NYU Brightspace LMS before the class starts. Student answers must be entered in the appropriate Assignment in the Brightspace class website. They are due one week after each class. There is a 20% penalty for a late assignment posting for up to one week late, and a 50% penalty will be given for a lab assignment delivered after the late period until the last day of the semester. The only exception is the final assignment which will only be accepted on the posted due date. Assignments emailed to the instructor will not be considered as having been turned in. Do not wait until the last minute to post an assignment and then find you can't post it due to the website or network unavailability. Plan appropriately to hand assignments in on time.

See the outline for assignment due dates.

## Course Technology Use

We will utilize multiple technologies to achieve the course goals. I expect you to use technology in ways that enhance the learning environment for all students. All class sessions require use of Zoom. All class sessions require use of technology (e.g., laptop, computer lab) for learning purposes.



## The Use of Al

You are expected to use Generative AI tools (ChatGPT, Claude, Bing and code generation tools such as Code Interpreter) appropriately in this class. In fact, some assignments will require it. Learning to use AI is an emerging skill, and I provide tutorials on how to use them. I am happy to meet and help with these tools during office hours or after class.

Be aware of the limits of Generative AI tools:

- If you provide minimum effort prompts, you will get low-quality results. You will need to refine your prompts in order to get good outcomes. This takes work.
- Don't trust anything it says. If it gives you a number or a fact, assume it is wrong unless you either know the answer or can check in with another source. You will be responsible for any errors or omissions provided by the tool. It works best for topics you understand.
- Al is a tool, but one that you need to acknowledge using. Please include a paragraph at the end of any assignment that uses Al explaining what you used the Al for and what prompts you used to get the results. Please do so in compliance with academic honesty policies.
- Be thoughtful about when this tool is useful. Only use it if it is appropriate for the case or circumstance.
- Be aware that the tool often answers precisely the same response to similar problems. So if you and another student asked the same question, you might get exactly the same answer. And if you use that answer as is in your assignment, you will be penalized for plagiarism of another student's response.
- You are responsible for your ethical use of this tool.

## Feedback and Viewing Grades

I will provide timely, meaningful feedback on all your work via our course site in NYU Brightspace. You can access your grades on the course site Gradebook.

#### Attendance

Students are expected to attend all class sessions. Excused absences are granted in cases of documented serious illness, family emergency, religious observance, or civic obligation. In the case of religious observance or civic obligation, this should be reported in advance. Unexcused absences from sessions may have a negative impact on a student's final grade. Students are responsible for assignments given during any absence.

If for some reason (excused absence) you will not be in class, you must notify the instructor prior to the scheduled session if you will not be attending and the reason.

Students who join the course during add/drop are responsible for ensuring that they identify what assignments and preparatory work they have missed and complete and submit those per the syllabus.

Refer to the SPS Policies and Procedures page for additional information about attendance.



## **Textbooks and Course Materials**

Required Reading & Materials:

- American Psychological Association. (2020). Publication Manual of the American Psychological Association (7th Ed.). Washington, D.C.: Author. ISBN 978-1-4338-3216-1
- Ghauri, et. Al, Research Methods in Business Studies, Fifth Edition, 2020, Cambridge University Press.

## **Required Software**

- Open AI ChapGPT4Plus with Code Interprepter <a href="https://openai.com/">https://openai.com/</a>
- Anthropic Claude 2 https://www.anthropic.com/index/claude-2
- NYU Collaborative Institutional Training Initiative (CITI) Human Subjects Training Program Tutorial: https://www.nyu.edu/research/resources-and-support-offices/getting-started-withyourresearch/human-subjects-research/tutorial.html

Additional open-source programs will be required and installed as instructed in class.

## Recommended Reading & Materials

- APA Style: http://www.apastyle.org/manual/
- Purdue OWL: http://owl.english.purdue.edu/owl/resource/560/01/

## **Grading | Assessment**

#### Final TAC Research Proposal

Assignment specifics and due dates may be found in the content outline at the end of this syllabus. Assignments will be graded for content, completion, grammar, clarity, and following APA 7 requirements, with 10% penalty for spelling and grammatical errors. All assignments should be submitted via NYU Brightspace LMS. Printed copies of most assignments will also be brought to class for (ungraded) peer review, discussion, and feedback. Assignments are due on the dates listed, with a penalty for lateness. Most assignments add additional elements to your proposal, which you will develop throughout the course. The following criteria will be used for performance evaluation and grading of course assignments:

Assignment 1A	: TAC Research Problem	1%
Assignment 1B	: Identify and propose a topic for further TAC research	4%
Assignment 2:	Revise TAC proposal topic based on class discussion	5%
Assignment 3:	Identify 15 research references for your proposal	10%
Assignment 4:	Draft Introduction	10%
Assignment 5:	UCAIHS CITI Training	
	(Passing Exam REQUIRED TO PASS COURSE)	5%
Assignment 6:	Draft literature review	10%
Assignment 7:	Draft TAC Hypothesis	5%
Assignment 8:	Draft TAC Data and Analysis Plan	15%
Assignment 9:	Draft TAC Proposal	5%



Assignment 10: Final TAC Proposal 10% Assignment 11: Final TAC Proposal via Video 5%

ASSIGNMENTS TOTAL 85%

## Weekly Review Quizzes (10%):

There are 10 RQs (Review Quizzes). To assist you to master the course materials we are providing 12 Review Quizzes (RQs, one per week). You are required to complete 12 out of the 12 RQs. The RQs are 5 questions surveys of what and how you learned each week. They are to be taken weekly the day after each session (they are open until midnight the following day). This is not an exercise to measure what you know but to assist you to transfer knowledge from short-term memory to long-term memory. In the past students who used these exercises got as much as a 30% increase in their final exam grade. The quizzes count for 10% of the final grade. You are highly encouraged to take them. The quizzes are open online and only for a very short time (36 hrs.) and they are timed to maximize knowledge transfer. Be sure to take each quiz when it is available.

## <u>Team In-Class Case Study Workshops</u> (5% total, .5% each).

There are 10 required out of 12 team workshop deliverables done in class. There is a team case study workshop due every week. The top 10 out of 12 lab grades will be retained to contribute to the final grade; the lowest team workshop grade will be dropped. Student answers to the team workshops will be entered in the appropriate Assignment on the Brightspace class website. They are due one day after the class. The assignments are done by the team at the end of each class so there is no need for extra time to complete assignments. No credit will be given for a lab assignment delivered after that.

## **Human Subjects Research Training**

Students are required to successfully complete the University Committee on Activities Involving Human Subjects (UCAIHS) Collaborative Institutional Training Initiative (CITI) training modules for Human Subjects (this is specifically the Social & Behavioral Research - Basic/Refresher - Basic Course with 17 required modules). You cannot pass the course without showing proof of having successfully completed this on-line training.

The Final Proposal (Final Project) is the A Technology Application Concept Proposal.

See the <u>"Grades" section of Academic Policies"</u> for the complete grading policy, including the letter grade conversion, and the criteria for a grade of incomplete, taking a course on a pass/fail basis, and withdrawing from a course.

## **NYU SPS Graduate Grading Scale**

A 95-100 4.000 **Exceptional:** Demonstrates exceptional mastery of all learning outcomes of the course and thorough and complete understanding of all concepts.



A-	90-94	3.667	<b>Excellent:</b> Demonstrates highly competent mastery of all learning outcomes of the course and strong understanding of all concepts.
B+	87-89	3.333	<b>Very Good</b> ; <b>exceeds course standards</b> : Demonstrates mastery of all learning outcomes of the course and understanding of core concepts.
В	83-86	3.000	<b>Good; meets course standards:</b> Demonstrates mastery of some learning outcomes; understanding of some core concepts could be improved.
B-	80-82	2.667	<b>Somewhat Satisfactory</b> ; meets some course standards and requires improvement: Demonstrates basic understanding of some learning outcomes; improved understanding of all core concepts is needed.
C+	77-79	2.333	Less than Satisfactory; requires significant improvement:  Demonstrates partial understanding of all learning outcomes and core concepts; requires significant improvement.
С	73-76	2.000	<b>Unsatisfactory</b> ; <b>requires substantial improvement</b> : Demonstrates partial understanding of some learning outcomes and core concepts; requires substantial improvement.
C-	70-72	1.667	<b>Unsatisfactory</b> ; <b>requires extensive improvement</b> : Demonstrates poor understanding of all learning outcomes and core concepts; requires extensive improvement.
F	Below 70		<b>Fail:</b> Demonstrates minimal to no understanding of all key learning outcomes and core concepts; work is unworthy of course credit towards the degree.
P			<b>Passing:</b> If a Pass/Fail grade is allowed, the choice of pass/fail must be made prior to the completion of the fifth week of the term.

#### **Course Outline**

**Start/End Dates:** 9/03/2024 - 12/10/2024 | Tuesdays

Time: 6:20 pm - 8:55 pm

No Class Date(s): No class date: Tuesday, 10/15/24

Special Notes: N/A

## Session 1 - 09/03/24

**Topic Description:** Module 1: Introduction to Technology Application Concept (TAC) Research

• Introduction, Review Syllabus, & Course Overview

## **Assignments:**

Assignment 1A: TAC Research Draft
Read Ghauri 1, 2 and APA chap 1,2

## Session 2 - 09/10/24



## **Topic description** – Module 2: The TAC Research Process

• Why do we do TAC research?

### **Assignments:**

Read Ghauri 3 and APA chap 2

#### Session 3 - 09/17/24

<u>Topic description</u> – Module 3: The TAC Proposal Introduction - Context and Prior Work

Why tackle this TAC project and what do you propose to prove?

## **Assignments:**

- Assignment 1B: Identify and propose a TAC
- Read Ghauri 4 and APA chap 3

#### Session 4 - 09/24/24

**Topic description – Module 4: Evidence and Literature Search** 

How to evaluate evidence and where to find it?

### **Assignments:**

- Assignment 2: Revise the TAC proposal
- Read Ghauri 4.5 and APA chap 3

### Session 5 - 10/01/24

**Topic description –** Module 5: Reframing the TAC Question

Distinguishing yourself by creative problem solving

## **Assignments:**

- Assignment 3: Identify 15 research references
- Read Ghauri 3 and APA chap 6

#### Session 6 - 10/08/24

**Topic description** – Module 6: The Literature Review

Summarizing prior evidence as the basis for our TAC work

## **Assignments:**

Read Ghauri 14.5 AND APA chap 7

#### Session 7 - 10/22/24

**Topic description** – Module 7A: TAC Evidence-Based Practice

The PICO methodology and writing TAC hypothesis

## **Assignments:**

• Assignment 4: Draft Introduction



Read Ghauri 14.3

## Session 8 - 10/29/24

## <u>Topic description</u> – Module 7B: TAC Evidence-Based Practice - Continued

The PICO methodology and writing TAC hypothesis

## **Assignments:**

- Assignment 5: UCAIHS CITI Training
- Read Ghauri 5

#### Session 9 - 11/05/24

## **Topic description** – Module 8: TAC Trial Methodology I

Data acquisition and plan of analysis

#### **Assignments:**

- Assignment 6: Draft literature review
- Read Ghauri 7

## Session 10 - 11/12/24

## **Topic description** – Module 9A: TAC Trial Methodology II

· Quantitative, qualitative and mixed methods of analysis

## **Assignments:**

- Assignment 7: Draft TAC Hypothesis
- Read Ghauri 8, 9

#### Session 11 - 11/19/24

## <u>Topic description</u> – Module 9B: TAC Trail Methodology II - continued

Quantitative, qualitative, and mixed methods of analysis

## **Assignments**

Read Ghauri 9, 10

#### Session 12 - 11/26/24

## **Topic description** – Module 10: Finalizing the TAC Research Proposal

Review the elements of the final concept proposal

## **Assignments:**

- Assignment 8: Draft TAC Data and Analysis Plan
- Read Ghauri 14

#### Session 13 - 12/03/24

## **Topic description – Module 11: Coaching Session**

Assignment 9: Draft TAC Proposal

## **Assignments:**



• One-on-one coaching sessions

## Session 14 - 12/10/24

<u>Topic description</u> – Module 12: Proposal Presentation

• FINAL PROPOSAL DELIVERABLE DUE

## **Assignments:**

• Assignment 10: Final TAC Proposal



## **Schedule of Classes**

Dates	Topics	Reading	Assignments
Session 1	Module 1: Introduction to Technology Application Research	Ghauri 1,2	
Sep 3	Introduction, Review Syllabus, & Course Overview	APA chap 1,2	
Session 2 Sep 10	Module 2: The TAC Research Process	Ghauri 3	Assignment 1A:
	Why do we do TAC research?	APA chap 2	TAC Research Draft
Session 3 Sep 17	Module 3: The TAC Proposal Introduction - Context and Prior Work	Ghauri 4	Assignment 1B: Identify and propose a TAC
	Why Tackle this TAC project and what do you propose to prove?	APA chap 3	
Session 4	Module 4: Evidence and Literature Search	Ghauri 14.	Assignment 2:
Sep 24	How to evaluate evidence and where to find it?	APA chap 3	Revise concept proposal
Session 5	Module 5: Reframing The TAC Question	Ghauri 3.	Assignment 3: Identify 15
Oct 1	Distinguishing yourself by creative problem solving	APA chap 6	research references
Session 6 Oct 8	Module 6: The Literature Review	Ghauri 14	
	Summarizing prior evidence as the basis for our TAC work	APA chap 7	
No Seassion	LEGISLATIVE DAY		
Oct 15	MONDAY CLASSE SCHEDULE - NO TUESDAY CLASSES		
Session 7 Oct 22	Module 7A: Proof of Concept - Evidence Based Practice	Ghauri 7	Assignment 4: Draft Introduction
	The PICO method and writing a TAC hypothesis	Gnauri 7	
Session 8	Module 7B: TAC Evidence Based Practice - Continued	Ghauri 8	Assignment 5: UCAIHS CITI Training
Oct 29	The PICO methodology and writing TAC hypothesis	Gnauri o	
Session 9 Nov 5	Module 8: TAC Trial Methodolgy I	Ghauri 8,9	Assignment 6: Draft literature review
	Data acquisition and plan of analysis	Gnaun 6,9	
Session 10 Nov 12	Module 9A: TAC Trial Methodology II	Ghauri 9, 10	Assignment 7: Draft TAC Hypothesis
	Quantitative, qualitative and mixed methods of analysis	Gnauri 9. 10	
Session 11	Module 9B: TAC Trial Methodology II - continued	Ghauri 10	
Nov 19	Quantitative, qualitative and mixed methods of analysis	Gnauri 10	
Session 12	Module 10: Finalizing the TAC Research Proposal		Assignment 8: Draft TAC Data and Analysis Plan
Nov 26	Review the elements of the final concept proposal	Ghauri 14	
No Session Nov 28	THANKSGIVING - NO CLASSES: Thursday, Nov 28		
Session 13 Dec 3	Module 11: Coaching Session		Assignment 9:
	On-on-one coaching sessions		Draft TAC Proposal
Session 14 Dec 10	Module 12: Proposal Presentation		Assignment 10:
	FINAL PROPOSAL DELIVERABLE DUE		Final TAC Proposal

#### NOTES:

The syllabus may be modified to better meet the needs of students and to achieve the learning outcomes.

The School of Professional Studies (SPS) and its faculty celebrate and are committed to inclusion, diversity, belonging, equity, and accessibility (IDBEA), and seek to embody the IDBEA values. The School of Professional Studies (SPS), its faculty, staff, and students are committed to creating a mutually respectful and safe environment (*from the* <u>SPS IDBEA</u> <u>Committee</u>).



## **New York University School of Professional Studies Policies**

- 1. <u>Policies</u> You are responsible for reading, understanding, and complying with <u>University Policies and Guidelines</u>, <u>NYU SPS Policies and Procedures</u>, and <u>Student Affairs and Reporting</u>.
- 2. <u>Learning/Academic Accommodations</u> New York University is committed to providing equal educational opportunity and participation for students who disclose their dis/ability to the <u>Moses Center for Student Accessibility</u>. If you are interested in applying for academic accommodations, contact the <u>Moses Center</u> as early as possible in the semester. If you already receive accommodations through the Moses Center, request your accommodation letters through the Moses Center Portal as soon as possible (<u>mosescsa@nyu.edu</u> | 212-998-4980).
- 3. <u>Health and Wellness</u> To access the University's extensive health and mental health resources, contact the <u>NYU Wellness Exchange</u>. You can call its private hotline (212-443-9999), available 24 hours a day, seven days a week, to reach out to a professional who can help to address day-to-day challenges as well as other health-related concerns.
- 4. <u>Student Support Resources</u> There are a range of resources at SPS and NYU to support your learning and professional growth. For a complete list of resources and services available to SPS students, visit the NYU SPS Office of Student Affairs site.
- 5. <u>Religious Observance</u> As a nonsectarian, inclusive institution, NYU policy permits members of any religious group to absent themselves from classes without penalty when required for compliance with their religious obligations. Refer to the <u>University Calendar Policy</u> on <u>Religious Holidays</u> for the complete policy.
- 6. <u>Academic Integrity and Plagiarism</u> You are expected to be honest and ethical in all academic work. Moreover, you are expected to demonstrate how what you have learned incorporates an understanding of the research and expertise of scholars and other appropriate experts; and thus, recognizing others' published work or teachings—whether that of authors, lecturers, or one's peers—is a required practice in all academic projects.

Plagiarism involves borrowing or using information from other sources without proper and full credit. You are subject to disciplinary actions for the following offenses which include but are not limited to cheating, plagiarism, forgery or unauthorized use of documents, and false form of identification

<u>Turnitin</u>, an originality detection service in NYU Brightspace, may be used in this course to check your work for plagiarism.

Read more about academic integrity policies at the NYU School of Professional Studies on the <u>Academic Policies for NYU SPS Students page</u>.

7. <u>Use of Third-Party Tools</u> - During this class, you may be required to use non-NYU apps/platforms/software as a part of course studies, and thus, will be required to agree to the "Terms of Use" (TOU) associated with such apps/platforms/software.

These services may require you to create an account, but you can use a pseudonym (which may not identify you to the public community, but which may still identify you by IP address to the company and companies with whom it shares data).

You should carefully read those terms of use regarding the impact on your privacy rights and intellectual property rights. If you have any questions regarding those terms of use or the impact on the class, you are encouraged to ask the instructor prior to the add/drop deadline.



Dates	Topics	Reading	Assignments
Session 1 Sep 3	Module 1: Introduction to Technology Application Research	Ghauri 1,2	
	Introduction, Review Syllabus, & Course Overview	APA chap 1,2	
Session 2 Sep 10	Module 2: The TAC Research Process	Ghauri 3	Assignment 1A: TAC Research Draft
	Why do we do TAC research?	APA chap 2	
Session 3 Sep 17	Module 3: The TAC Proposal Introduction - Context and Prior Work	Ghauri 4	Assignment 1B: Identify and propose a TAC
	Why Tackle this TAC project and what do you propose to prove?	APA chap 3	
Session 4	Module 4: Evidence and Literature Search	Ghauri 14.	Assignment 2: Revise concept proposal
Sep 24	How to evaluate evidence and where to find it?	APA chap 3	
Session 5	Module 5: Reframing The TAC Question	Ghauri 3.	Assignment 3: Identify 15
Oct 1	Distinguishing yourself by creative problem solving	APA chap 6	research references
Session 6	Module 6: The Literature Review	Ghauri 14	
Oct 8	Summarizing prior evidence as the basis for our TAC work	APA chap 7	
No Seassion	LEGISLATIVE DAY	a	Assignment 4: Draft Introduction
Oct 15	MONDAY CLASSE SCHEDULE - NO TUESDAY CLASSES	Ghauri 7	
Session 7 Oct 22	Module 7A: Proof of Concept - Evidence Based Practice	Observed 7	Assignment 4: Draft Introduction
	The PICO method and writing a TAC hypothesis	Ghauri 7	
Session 8	Module 7B: TAC Evidence Based Practice - Continued	Chauri 9	Assignment 5: UCAIHS CITI Training
Oct 29	The PICO methodology and writing TAC hypothesis	Ghauri 8	
Session 9	Module 8: TAC Trial Methodolgy I	Chauri 9 0	Assignment 6: Draft literature review
Nov 5	Data acquisition and plan of analysis	Ghauri 8,9	
Session 10	Module 9A: TAC Trial Methodology II	Ghauri 9. 10	Assignment 7: Draft TAC Hypothesis
Nov 12	Quantitative, qualitative and mixed methods of analysis	Gnauri 9. 10	
Session 11	Module 9B: TAC Trial Methodology II - continued	Observed 40	
Nov 19	Quantitative, qualitative and mixed methods of analysis	Ghauri 10	
Session 12	Module 10: Finalizing the TAC Research Proposal		Assignment 8: Draft TAC Date and Analysis Plan
Nov 26	Review the elements of the final concept proposal	Ghauri 14	
	THANKSGIVING - NO CLASSES: Thursday, Nov 23		
Session 13	Module 11: Coaching Session		Assignment 9:
Dec 3	On-on-one coaching sessions		Draft TAC Proposal
Session 14 Dec 10	Module 12: Proposal Presentation		Assignment 10:
	FINAL PROPOSAL DELIVERABLE DUE		Final TAC Proposal