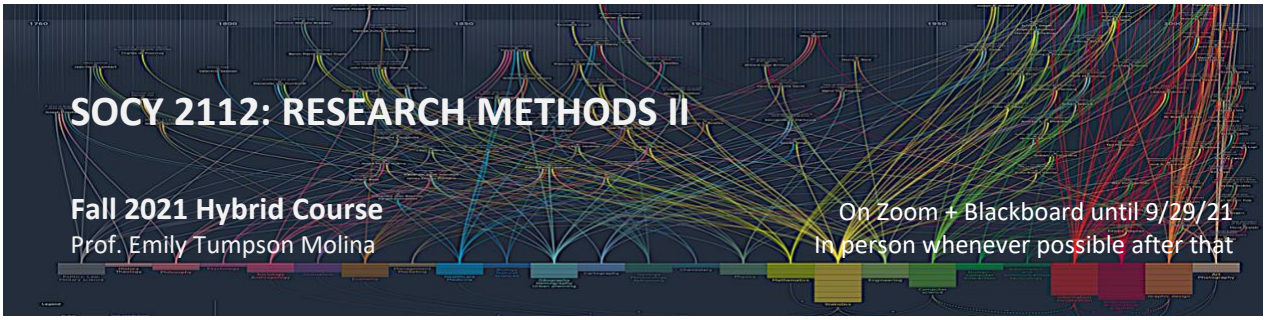


SOCY 2112: RESEARCH METHODS II

Fall 2021 Hybrid Course
Prof. Emily Tumpson Molina

On Zoom + Blackboard until 9/29/21
In person whenever possible after that

THE SECOND COURSE IN RESEARCH METHODS FOR SOCIOLOGY MAJORS + THE QUANTITATIVE RESEARCH METHODS COURSE FOR SOCIOLOGY CONCENTRATIONS IN THE URBAN SUSTAINABILITY PROGRAM @BROOKLYN COLLEGE.

Prof. Molina's office hours:
Mondays + Wednesdays 1-2p + by appointment
On zoom until 9/29/21 (link on Blackboard)
Email: etmolina@brooklyn.cuny.edu

Please check the **email address** you have listed with BC as soon as possible – all course announcements and reminders will go there.

This course was **originally scheduled to meet in person** on Mondays + Wednesdays 2:15-4:30p in 3611 James Hall @Brooklyn College.

WE WILL MEET REMOTELY UNTIL 9/29/21.

All materials, assignments, and resources are on **Blackboard**. We will meet for **live discussion on Zoom** on **Wednesdays only** from 2:15-4:30p.

ABOUT THE COURSE

This course introduces you to when, why, and how people use statistics and other quantitative methods in the social sciences and beyond. You'll learn when a quantitative approach to answering sociological questions is helpful and when it can be problematic. You'll identify good surveys from bad, and learn when to side-eye a shocking average you see in media. You'll figure out when data represent what they say they do and when they don't. You'll better understand odds and statistical risk, and you'll create well-designed graphs and other visuals from spreadsheets. You will analyze NYC public data sets, identify what you can conclude from them and what would be a stretch, write about the patterns you find, and creatively represent those patterns to a professional audience. After passing this course, you can add "proficiency in Excel, spreadsheets, basic statistics, and creating infographics" to your resume, and you'll be prepared to take more advanced courses in quantitative methods and data analytics.

YOU WILL LEARN TO:

- Not shy away from (and maybe even like) using spreadsheets, statistics, and programming in social research.
- Identify when quantitative methods are appropriate to use.

- Design quantitative research projects.
- Evaluate statistics reported in media.
- Understand the logic behind statistical sampling, probability, odds, and risk.
- Analyze and visualize public data in Excel / Google sheets.
- Calculate, interpret, and effectively present basic descriptive statistics like percentages, ratios, averages, and standard deviations in written reports and visuals.
- Perform, interpret, and effectively communicate the results of bivariate analyses like t-tests, bivariate tables, chi-square tests, correlations, and simple regressions in written reports and visuals.

ON THE WAY TO THESE OUTCOMES, YOU'LL DISCOVER:

- how generally terrible humans are at acting on statistical evidence, odds, and risk.
- statistical misrepresentation in all kinds of media.
- the survey language you should never use.
- tons of other statistical tips and tricks.

WHAT MATERIALS DO YOU NEED?

Zoom for live meetings

Blackboard for readings / videos / assignments / discussion board

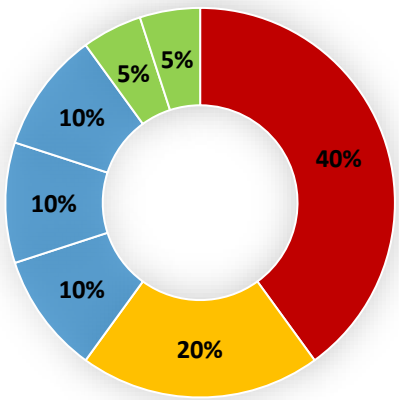
MS Excel / Google Sheets

A simple **calculator**

…that's it!

GRADE BREAKDOWN

Here's how you'll be graded:



- 2 Exams + 1 quiz
- 4 At-home excerises
- Individual research report + infographic
- Weekly labs
- Attendance + participation
- Group research proposal
- Group research presentation

EXAMS + ASSIGNMENTS

DUE DATE	ASSIGNMENT
Monday 9/20	Exercise 1: Operationalization
Monday 9/27	Exercise 2: Surveys + sampling
Wednesday 9/29	Team data project proposal

Monday 10/18	**Midterm Exam: Quantitative research design**
Wednesday 11/3	**Quiz: Generalizing from samples**
Monday 11/22	Exercise 3: Analyzing relationships between categorical variables
Wednesday 12/1	Exercise 4: Analyzing relationships between interval variables
Wednesday 12/8	Team data project presentations + individual data report / infographic
Monday 12/20	**Final exam**

Exercises and assignments will be posted on Blackboard at least 1 week in advance. More specific info on your individual + team data projects will be posted on Blackboard in the first few weeks of the course.

THIS IS A HYBRID COURSE

WE WILL BE ONLINE UNTIL AT LEAST SEPTEMBER 29. After that, we will meet in person whenever possible in 3611 James Hall (as of 8/23/21.)

WHILE WE ARE ONLINE

- We will meet **once a week live on Zoom** on Wednesdays from 2:15-4:30p.
- Video lessons of new course material will be posted on **Blackboard** on Mondays, along with the week's lab.
- For now, **quizzes and exams** will be given synchronously online as scheduled in the syllabus.
- This class includes a **Team Data Project.** Your group will need to **establish a regular way of connecting**. That could mean a weekly Zoom meeting among yourselves, or a group chat, or a collective Google Doc – whatever makes sense for you.

YOUR WEEKLY ONLINE RHYTHM

Ideally here's how you'll approach your week:

- Read all the readings for the week by Monday (they are typically very short, and they are all up on Blackboard, so you can start whenever you want.)
- New material is posted on Monday – view it by Wednesday.
- Try the lab by Wednesday.
- Attend live discussion on Wednesday, where we will discuss the week's readings, the video lessons, labs, and any upcoming exercises.
- Complete your lab for the week and any other exercises to upload to Blackboard by the following Monday at 2:15p. (There is one exception to this – Lab 3 is due on a Wednesday.)

YOUR WEEKLY ONLINE CHECKLIST

BY MONDAY	☐ Post completed lab from last week on Blackboard by 2:15p. ☐ Post any other exercises due today on Blackboard by 2:15p.
BY WEDNESDAY	☐ Read Monday + Wednesday readings by the start of class. ☐ View video lessons posted on Monday by the start of class.

	□ Attempt lab posted on Monday by the start of class. □ Live class 2:15-4:30p on Zoom
INSTRUCTOR FEEDBACK	□ Prof. Molina has open office hours on Mondays + Wednesdays 1-2p □ Your graded labs and exercises will be returned every week on Mondays □ Wednesday's live discussions will leave plenty of time for interacting and asking questions □ You can make a Zoom appointment with Prof. Molina to go over the class material or your grade at any time

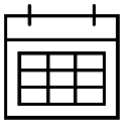
All of this ↑ **is open for discussion!** We will adapt in whatever ways make sense for us.

TIPS FOR DOING WELL

Plan your time this semester **now** around important course due dates. Give yourself the appropriate amount of time to complete assignments.

Really do the reading. It's short and worth it.

Try to ask at least one question per live class session.



Stay in touch with me.

Try to avoid falling behind.

Take your group work seriously. Set up a regular system for checking in.

COURSE POLICIES – WHEN WE ARE IN PERSON

- **Assignments are due at the beginning of class at 2:15p.** I don't accept **late** assignments or excuse any absences without a university-approved, documented excuse (i.e. a doctor's note.)
- **If you miss class, you miss the opportunity to turn in that day's lab and any assignments that are due that day.** You might want to check back at the way your grade is calculated—this can end up being a pretty big deal.
- If you know you need to miss a class at some point this semester for a **religious holiday**, no problem! Just let me know ASAP.

- Please **stay off of your phone and other devices** unless you're taking notes or doing internet research during a lab. If you're a caretaker or emergency worker on call, that's different – let me know if this is the case ASAP!
- Don't be **late**.
- Please be a **respectful** student + classmate.

RESOURCES YOU SHOULD USE

University Policy on Academic Integrity
The University Policy on Academic Integrity tells you clearly what constitutes **cheating and plagiarism**, and the consequences for students who cheat. FYI, if a faculty member confirms cheating or plagiarism, the faculty member is **required to report the violation**.

State Law on Non-Attendance Due to Religious Beliefs
See this and more academic policies in the Undergraduate Bulletin.

Student Bereavement Policy
Students who experience the death of a loved one can request accommodations. See more here.

Center for Student Disability Services
In order to receive disability-related academic accommodations, students must first be registered with the Center for Student Disability Services (CSDS). If you have already registered with the CSDS, make sure you give me your course accommodation form ASAP so we can discuss a semester plan. If you have a documented disability or suspect you may have one, set up an appointment with the Director of the CSDS.

The Magner Center
65% of employers prefer that college students have at least 2 internships before they graduate. The Magner Center can help you **find an internship, prep your resume, and practice interviewing**. They can also help you find ways of **getting paid** for your internship. Stay in touch with them and check their calendar for events and stipend deadlines.

SUPPORT + RESOURCES @ BC

Immigrant Student Success Office
https://www.brooklyn.cuny.edu/web/about/offices/studentaffairs/student-support-services/isso.php

Black + Latino Male Initiative
https://www.brooklyn.cuny.edu/web/about/offices/studentaffairs/student-support-services/blmi.php

Women's Center
https://www.brooklyn.cuny.edu/web/about/offices/studentaffairs/student-support-services/womenscenter.php

LGBTQ Center
http://www.brooklyn.cuny.edu/web/academics/centers/lgbtqcenter.php

So many more resources here:
http://www.brooklyn.cuny.edu/web/about/offices/studentaffairs/student-support-services.php

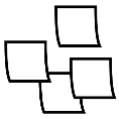
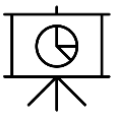
COURSE SCHEDULE

DATE	TOPIC	DUE AT 2:15P	LAB POSTED
Wednesday 8/25	 **Introduction to the course**		1/ Infographic critique and math review
UNIT 1 : QUANTITATIVE RESEARCH DESIGN			
Monday 8/30	 **When + why are quant methods useful in research?**	**Read** Pager + Shepherd, "The Sociology of Discrimination: Racial Discrimination in Employment, Housing, Credit, and	2/ Data + variables

			Consumer Markets," *Annual Review of Sociology* 34: 181-209 + **Lab 1 DUE**	
Wednesday 9/1		**When, how, + why to measure/ quantify social "stuff"**	**Read** Harvard University Program on Survey Research, Tip Sheet on Question Wording (this link downloads a pdf) + **Read** Raskoff, "Measuring Abortion Beliefs," from Everyday Sociology Blog	
Monday 9/6 – Wednesday 9/8	**NO CLASSES**			
Monday 9/13		**When, how, + why to design surveys**	**Read** Sternheimer, "The Art and Science of Survey Writing," from Everyday Sociology Blog + **Lab 2 DUE**	3/ Online surveys + how to design a sample
Wednesday 9/15	**NO CLASS**			
Monday 9/20		**How to design sampling strategies**	**EXERCISE 1 DUE** + **Read** Qualtrics Research, "Your ultimate guide to sampling methods and best practices" + **Read** Sternheimer, "Sociology and the Census," from Everyday Sociology Blog	
Wednesday 9/22		**Putting it all together: research design + spreadsheets**	**Read** "KFF COVID-19 Vaccine Monitor: Parents and the Pandemic" Survey Methodology + **Read** through this Google Forms tutorial + **Lab 3 DUE**	
UNIT 2 : DESCRIPTIVE STATISTICS				
Monday 9/27		**You have a spreadsheet! Now what?: Basic descriptive statistics**	**EXERCISE 2 DUE** +	4/ Intro to descriptive statistics, graphs, + charts in Excel

		Read and examine this "Absolutely everything (including housing) is more expensive in NYC" infographic	
Wednesday 9/29	 **Visualizing data**	**Read** Steelberg, "Data Presentation: Showcasing Your Data with Charts and Graphs," from Creating Data Literate Students + **Look through** this George Mason University Library guide to visualizations	Group proposal due by end of live discussion
Monday 10/4	 **Summary statistics: measures of central tendency**	**Read** University of Utah SOCY 2112 course's "Central Tendency and Variability" + **Read** Raskoff, "Measures of Central Tendency" + **Lab 4 DUE**	5/ Summary statistics in Excel
Wednesday 10/6	 **Summary statistics: measures of dispersion**	**Read and examine** this "Infographic shows most common birthdays"	
Monday 10/11	**NO CLASS**		
Wednesday 10/13	 **MIDTERM REVIEW**	**Lab 5 DUE** + Come prepared with questions!	
Monday 10/18	 **MIDTERM EXAM**		
UNIT 3 : GENERALIZING FROM SAMPLES			
Wednesday 10/20	 **Probabilities + Z-scores + the "normal distribution"**	**Listen to** "We're Bad at Calculating Risk," from National Public Radio's Planet Money (9 minutes) **Read** "Normal Distributions in the Wild" from Sociological Images	6/ Probabilities and risk
Monday 10/25	 **The logic behind polling: the sampling distribution**	**Everyone read** "The Polls Weren't Great, but That's Pretty Normal" from FiveThirtyEight.com **SUST students read** "Developing a Wastewater Surveillance Sampling	7/ Evaluating polls

			Strategy," from the US Centers for Disease Control	
Wednesday 10/27		**Estimation, confidence intervals, + the margin of error**	**Read** Sternheimer, "Get to Know MoE: Why the Margin of Error Matters" from Everyday Sociology Blog + **Read** "KFF COVID-19 Vaccine Monitor: Parents and the Pandemic" Survey Methodology again	8/ Confidence intervals + margin of error
Monday 11/1		**QUIZ REVIEW**	Come prepared with questions!	
Wednesday 11/3		**QUIZ**		
UNIT 4 : ANALYZING RELATIONSHIPS BETWEEN VARIABLES				
Monday 11/8		**Intro to bivariate analysis + T-tests**	**Everyone read** the Urban Institute's description of "Paired Testing" + **SOC students read** Whaling et al., "Reduced child maltreatment prevention service case openings during COVID-19," research paper under review (this link downloads a pdf) + **SUST students read** Weber et al., "The impact of urban greenways on residential concerns: Findings from the Atlanta BeltLine Trail," from *Landscape and Urban Planning* (this link downloads a pdf)	9/ T-tests
Wednesday 11/10	χ^2	**When you have categorical variables: bivariate tables + chi square**	**Read** Misra et al., "Determinants of Depression Risk among Three Asian American Subgroups in New York City" from *Ethnicity & Disease*	10/ Bivariate tables and chi square
Monday 11/15		**Working with bivariate tables in Excel**	**Read** George Mason Library's Software for Digital Scholarship "Spreadsheets InfoGuide + Important Skills" - click through all the links in these 2 sections	11/ Bivariate tables in Excel
Wednesday 11/17		**Visualizing info from bivariate tables**	**Read** George Mason Library's Data Visualization guide, "Visualization Software & Tools" - click through the links to get a sense of what's out there	12/ Visualizing bivariate relationships

Monday 11/22	 **When you have interval variables: Scatterplots + Correlation**	* EXERCISE 3 DUE * + **Read** Ryzin et al., " Measuring Street Cleanliness: A Comparison of New York City's Scorecard and Results from a Citizen Survey," from *Public Administration Review* (this link downloads a pdf)	13/ Scatterplots + correlation in Excel
Wednesday 11/24	 **Getting fancier: Simple regression**	**Read** Lavrakas, "Regression Analysis" from *Encyclopedia of Survey Research Methods* (this link downloads a pdf)	14/ Regression in Excel
Monday 11/29	 **Bivariate analysis review**		15/ Interpreting bivariate analyses
Wednesday 12/1	 **Group research and preparation**	* EXERCISE 4 DUE *	
Monday 12/6	 **Group research and preparation**		
Wednesday 12/8	 **Presentations**	* INDIVIDUAL REPORT + INFOGRAPHIC DUE *	
Monday 12/13	 **Review for final**	Come prepared with questions!	
Monday 12/20	 **FINAL EXAM**	**NOTE THE TIME CHANGE! 1-3p**	