

SOCY 2112: RESEARCH METHODS II

In person

Mondays + Wednesdays @ 2:15-4:30p
in 3611 James Hall @Brooklyn College - CUNY

Prof. Emily Tumpson Molina
Fall 2021

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

Prof. Molina's contact info:

etmolina@brooklyn.cuny.edu

Office hours: Mondays/Wednesdays 1-2p
in 3606 James Hall @BC
+ by appointment on Zoom

ABOUT THE COURSE



This course introduces you to when, why, and how social scientists and other data analysts use statistics and other quantitative methods.

You'll learn when a quantitative approach to answering questions is helpful and when it can be problematic. You'll learn to identify good surveys from bad and when to side-eye a shocking average published in the media. You'll be able to 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:

- Be less freaked out about using spreadsheets, statistics, and programming in social research.
- Identify when quantitative methods are appropriate to use.
- Design quantitative research projects.
- Analyze and visualize public data in Excel / Google sheets.
- Evaluate statistics reported in media.
- Understand the logic behind statistical sampling, probability, odds, and risk.
- Calculate, interpret, and effectively present basic descriptive statistics like percentages, ratios, averages, and standard deviations in written reports and visuals.

WHAT MATERIALS DO YOU NEED?



This course site +
Blackboard + Excel



A simple calculator

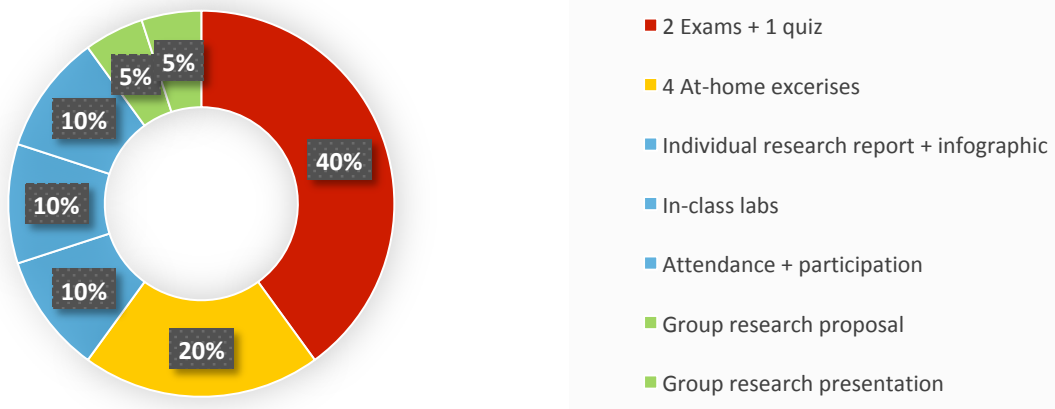
- Perform, interpret, and effectively communicate the results of bivariate analyses like t-tests, bivariate tables, chi-square tests, correlations, and simple regressions in written reports and visuals.

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

- how 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.

GRADE BREAKDOWN

Here’s how you’ll be graded:



ADVICE FOR DOING WELL



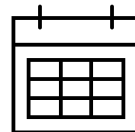
Don’t miss any classes.



Avoid falling behind.



Try to ask at least one question per class session.



Come to office hours or make an appointment to check in with me – whether or not you have a specific reason.



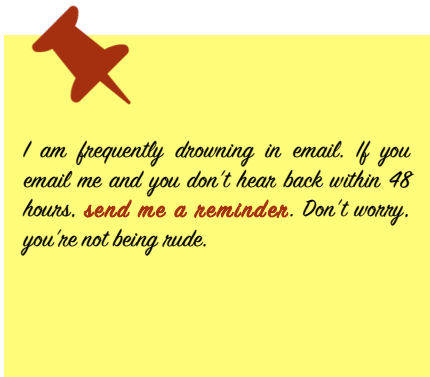
Do the reading.



Study with your classmates and take your group work seriously.

COURSE POLICIES

- **Assignments are due at the beginning of class.** 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, but 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**.
- I'm assuming you're generally a **respectful, reasonable** student, classmate, and overall human. But in the very off chance you're not, we might need to check in about that.
- What **email address** do you have listed with BC? That's where all my communication with you will go, so please **check** ASAP. **All of my announcements and reminders will go to this email address – it is your responsibility to make sure it's the correct one.**

EXAMS + ASSIGNMENTS

	Exercise 1: Operationalization	DUE WEDNESDAY 9/20
	Exercise 2: Research design	DUE WEDNESDAY 9/27
	Midterm exam	MONDAY 10/18
	Quiz	WEDNESDAY 11/3



	Exercise 3: Bivariate analysis 1	MONDAY 11/22
	Exercise 4: Bivariate analysis 2	WEDNESDAY 12/1
	Individual data report + infographic	WEDNESDAY 12/8
	Final exam	MONDAY 12/20



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, + PROGRAMMING @ 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

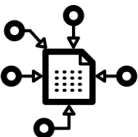






<https://www.brooklyn.cuny.edu/web/about/offices/studentaffairs/student-support-services/womenscenter.php>

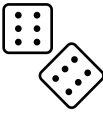
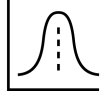




LGBTQ Center





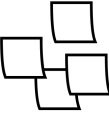


<http://www.brooklyn.cuny.edu/web/academics/centers/lgbtcenter.php>

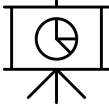


COURSE SCHEDULE

DATE	TOPIC	DUE AT THE BEGINNING OF CLASS	IN-CLASS LAB
Wednesday 8/25	 Introduction to the course		1/Infographic critique and math review
Monday 8/30	 When + why are quant methods useful in research?	Read Pager and Shepherd, "The Sociology of Discrimination: Racial Discrimination in Employment, Housing, Credit, and Consumer Markets," Annual Review of Sociology 34: 181-209 (on Blackboard)	2/When are quantitative methods appropriate?
Wednesday 9/1	 When, how, + why to measure/quantify social "stuff"	Read Harvard University Program on Survey Research, Tip Sheet on Question Wording (on Blackboard) + Read Raskoff, "Measuring Abortion Beliefs" http://www.everydaysociologyblog.com/2009/06/measuring-abortion-beliefs.html (on Blackboard)	3/ Operationalizing
Monday 9/6 – Wednesday 9/8	NO CLASSES		
Monday 9/13	 When/why to design surveys	Read Sternheimer, "The Art and Science of Survey Writing" http://www.everydaysociologyblog.com/2018/04/the-art-and-science-of-survey-writing.html (on Blackboard)	4/Online surveys
Wednesday 9/15	NO CLASS		
Monday 9/20	 How to design sampling strategies	* EXERCISE 1 DUE * + Read https://www.qualtrics.com/experience-management/research/sampling-methods/ + Read Sternheimer, "Sociology and the Census" http://www.everydaysociologyblog.com/2010/03/sociology-and-the-census.html (on Blackboard)	5/Sampling strategies

Wednesday 9/22		Putting it all together: research design + spreadsheets	Read https://www.kff.org/report-section/kff-covid-19-vaccine-monitor-parents-and-the-pandemic-methodology/ + Read through this Google Forms tutorial: https://support.google.com/a/users/answer/9991170?hl=en&ref_topic=9348489	Group proposal work – turn in progress by end of class
Monday 9/27		You have a spreadsheet! Now what?: Basic descriptive statistics	* EXERCISE 2 DUE * + Read and examine infographic: https://www.brickunderground.com/live/cost-of-living-infographic-NYC	Group proposal due by end of class
Wednesday 9/29		Visualizing data	Read Steelberg, “Data Presentation: Showcasing Your Data with Charts and Graphs,” from Creating Data Literate Students (on Blackboard)	6/Graphs and charts in Excel
Monday 10/4		Summary statistics: measures of central tendency	Read “Central Tendency and Variability” https://soc.utah.edu/sociology3112/central-tendency-variability.php (on Blackboard) + Read Raskoff, “Measures of Central Tendency” http://www.everydaysociologyblog.com/2015/04/measures-of-central-tendency.html (on Blackboard)	7/Measures of central tendency in Excel
Wednesday 10/6		Summary statistics: measures of dispersion	Read and examine the infographic: https://www.todayparent.com/blogs/birthdays-most-common/ Look at these examples of histograms, pick a favorite, and come prepared to explain why: https://www.reddit.com/r/dataisbeautiful/search?q=histogram&restrict_sr=1	8/Measures of dispersion in Excel
Monday 10/11	NO CLASS			
Wednesday 10/13		MIDTERM REVIEW	Come prepared with questions!	
Monday 10/18		MIDTERM EXAM		

Wednesday 10/20		Probabilities + Z-scores + the “normal distribution”	<p>Listen (9 minutes): https://www.npr.org/2021/05/19/998375633/were-bad-at-calculating-risk</p> <p>Read https://thesocietypages.org/socimages/2019/09/11/normal-distributions-in-the-wild/</p>	9/Probabilities and risk
Monday 10/25		The logic behind polling: the sampling distribution	<p>Read https://fivethirtyeight.com/features/the-polls-werent-great-but-thats-pretty-normal/</p> <p>SUST students read https://www.cdc.gov/healthywater/surveillance/wastewater-surveillance/developing-a-wastewater-surveillance-sampling-strategy.html</p>	10/Evaluating polls
Wednesday 10/27		Estimation, confidence intervals, + the margin of error	<p>Read Sternheimer, “Get to Know MoE: Why the Margin of Error Matters” http://www.everydaysociologyblog.com/2016/02/get-to-know-moe-why-the-margin-of-error-matters.html (on Blackboard)</p> <p>+ Read https://www.kff.org/report-section/kff-covid-19-vaccine-monitor-parents-and-the-pandemic-methodology/</p>	11/Confidence intervals + margin of error
Monday 11/1		QUIZ REVIEW	Come prepared with questions!	
Wednesday 11/3		QUIZ		
Monday 11/8		Intro to bivariate analysis + T-tests	<p>Everyone read: https://www.urban.org/research/data-methods/data-analysis/quantitative-data-analysis/impact-analysis/paired-testing</p> <p>SOC students read: Whaling et al. (2020), “Reduced child maltreatment prevention service case openings during COVID-19” (https://www.srs.fs.usda.gov/pubs/ja/2017/ja_2017_johnson_003.pdf)</p>	12/T-tests

			<p>SUST students read: Weber et al. (2017) “The impact of urban greenways on residential concerns: Findings from the Atlanta BeltLine Trail” (https://www.srs.fs.usda.gov/pubs/ja/2017/ja_2017_johnson_003.pdf)</p>	
Wednesday 11/10	χ^2	Bivariate tables + Chi square	<p>Read Misra et al. (2020), “Determinants of Depression Risk among Three Asian American Subgroups in New York City” (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7518536/)</p>	13/Bivariate tables and chi square
Monday 11/15		Working with bivariate tables in Excel	<p>https://methods.sagepub.com/Book/da-ta-visualization-and-presentation-with-microsoft-office (EMILY F – help?)</p>	14/Bivariate tables in Excel
Wednesday 11/17		Visualizing info from bivariate tables	<p>https://methods.sagepub.com/Book/da-ta-visualization-and-presentation-with-microsoft-office (EMILY F – help?)</p>	15/Visualizing bivariate relationships
Monday 11/22		When you have interval variables: Scatterplots Correlation	<p>* EXERCISE 3 DUE * + Read Ryzin et al. (2008), “ Measuring Street Cleanliness: A Comparison of New York City’s Scorecard and Results from a Citizen Survey” (https://www-proquest-com.ez-proxy.brooklyn.cuny.edu/docview/197174673?OpenUrlRefId=info:xri/sid:primo&accountid=7286)</p>	16/Scatterplots + correlation in Excel
Wednesday 11/24		Getting fancier: Simple regression	<p>Read https://methods.sagepub.com/reference/encyclopedia-of-survey-research-methods/n461.xml (Emily F – help?)</p>	17/Regression in Excel
Monday 11/29		Bivariate analysis review		18/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: 1-3p	