

## RESEARCH METHODS

SOC-209-001 / 002

TWF 8:30 – 9:20 / 9:30 – 10:20

Accino Hall 202

Dr. Rhiannon Miller

Office Hours: T & F 2:30pm – 3:30pm

W 1:30pm – 3:30pm

and by appointment

Office: Howley Hall 114

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### *Teaching Assistants:*

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**\*\*Successful completion of SOC209 fulfills the Quantitative Reasoning Core Curriculum Requirement.**

### **Course Description**

Students will gain a foundation in research methods employed by sociologists. A survey of basic quantitative analysis techniques are reviewed, followed by an overview of qualitative methods. Students conclude by applying course methods to a research question of their choice. Students will carry an understanding of basic programming skills in R, an open-source statistical software program; qualitative interviewing techniques; and data literacy beyond the semester into their future coursework and paid work.

### **Course Objectives:**

1. Explore how sociologists know what they know.
2. Generate data and evidence used by sociologists.
3. Use data and evidence to identify social trends, relationships, and/or processes.
4. Develop literacy with quantitative and qualitative research methods and data.
5. Practice the process of learning a new, challenging skill [learn how to do hard things].

### **Course Structure**

The class will meet for 50 minutes, three times per week. Most class time will be spent in a demonstration and laboratory format, giving students the opportunity to practice learned methods with support from the instructor and peers. Students are ***strongly encouraged to work together*** both inside and outside the classroom on exercises and homework assignments. During the programming and quantitative portion of the course resource materials are listed below most sessions. These are not required reading, but are suggested if you are having trouble with course concepts to supplement in-class instruction.

### **Workload and Expectations**

This course covers a large breadth of material relative to other courses in the college. **EXPECT TO SPEND MORE TIME ON THIS COURSE THAN OTHER COURSES.** You should budget 8-10 hours per week **outside of course meeting times** to spend on readings, exercises, homework, and meeting

with your study group. Each course session builds on previous sessions. **IT IS EASY TO FALL BEHIND.** Use available resources to stay on top of new course material including:

- Preparing questions to ask in class
- Meeting regularly with your study group (see below)
- Tutoring support through the Student Success Center
- Attending Office Hours

**Study Groups:** Learning how to work with data while also learning a new programming language can be challenging. Your peers are your best resource and first line of defense. Class participants will be organized into Study Groups of four to six students by the instructor. When questions arise, as they inevitably will, you should contact your Study Group first. Exchange phone numbers and create a group chat over text, messenger, email, or Microsoft Teams. You should work on class exercises together, in class; contact each other to share questions, wins, and woes; and meet regularly to troubleshoot homework assignments.

### **Course Texts and Resources**

(Available from the Bookstore):

*Listening to People: A Practical Guide to Interviewing, Participant-Observation, Data Analysis, and Writing It All Up*, by Annette Lareau

(Available for free online):

[Hands-On Programming with R, by Garrett Grolemund](#)

[R Cookbook \(2<sup>nd</sup> Edition\), by Paul Teetor](#)

[Tidyverse Skills for Data Science, by Carrie Wright, Shannon E. Ellis, Stephanie C. Hicks and Roger D. Peng](#)

[R for Data Science, by Garrett Grolemund and Hadley Wickham](#)

[UCLA OARC's Introduction to R](#)

[Khan Academy, Statistics and Probability](#)

### **Course Requirements and Grading:**

In Class Exercises – 10%

Attendance – 10%

Participation & Engagement – 10%

Study Group – 15%

Homework Assignments – 25%

Final Research Project – 30%

#### ***In Class Exercises (10%)***

Most course sessions will include exercises during the “lab portion” of the class. Sometimes you will need to finish these exercises on your own. Support will be provided during lab time for any questions. Answers to daily exercises will be shared in a key after you submit your answers. Daily exercises will be ***graded for completion***. It is your responsibility to check your work against the answer key so that you have a corrected resource to use when working on homework assignments.

#### ***Attendance (10%)***

Class attendance is required. You are allowed two absences during the semester. You are responsible for any material and information provided in any class that you miss. If you must miss a course,

please check with your study group before emailing me to ask what work you missed or needs to be made up.

Use your absences wisely. You may want to hold onto them if something unexpected arises (e.g., heavy workload during midterms, getting a cold or food poisoning). **You do not need to notify me if you miss a class.**

Please contact me to let me know if you have any additional circumstances that may interfere with your attendance such as:

- severe unavoidable life events, e.g., sudden serious illness or injury to you (requires documentation from medical professional), death in the family;
- religious holidays;
- one professional or collegiate event per semester; this exemption can be taken to excuse *one* class per semester; it requires documentation from a non-student university authority figure (e.g., coach).
- Athletic participation (documentation must be supplied by coach or college).

If you miss for one of these reasons and do not want to use your “free passes,” e-mail me as soon as possible.

### ***Participation and Engagement (10%)***

Class time will be primarily used for actively applying new methods and skills. Class will be more fun and engaging for you and your peers if you are prepared. Research has consistently shown that students who participate learn more and retain content longer than students who do not. Much of our time will be spent working in small groups and/or sharing solutions to problems and analysis techniques with each other directly. **Please ask questions frequently and often**—if you are confused about something, chances are others are too.

It is important to ask questions if there is something that you don’t understand **and** it is up to the student to engage with course materials and class resources to practice finding solutions to their own questions. Sometimes the question you have is not “how do I do x?” but rather “where can I find an example of how to do x?” And learning how to find those resources and share them with others will be more valuable than receiving an answer to the first question.

### ***Study Group (15%)***

Students will be placed into groups of four to six. Groups will be balanced to include diversity in previous experience with data and majors. Some of the best resources in learning to program and work with data are others who are working through the same problems. Most data problems can be solved in multiple ways and being exposed to a variety of ways of thinking about data and programming is one of the best ways to improve quickly. You should use your team as a line of first defense in fielding questions, checking code, and working through daily exercises. If you are stuck on something for more than 30 minutes (after checking documentation and doing a google search), then you should reach out to your team. At the end of the term, all team members will be asked to rate their fellow team members on the responsiveness, support, and contributions to the team. These ratings will be averaged and applied to one-third the grade (5% of your overall class grade).

### ***Homework Assignments (25%)***

Homework assignments will be due (most) Fridays during the semester. These will review concepts from the prior week(s) (Monday through Friday). I hold office hours throughout the week to help you get the support you need for the homework. You may also schedule a tutoring appointment through the Student Success Center.

### ***Final Research Project (35%)***

Students will develop their own research question, using the General Social Survey and compile a research report applying the statistical techniques learned throughout the semester. Students will then conduct three qualitative interviews to compliment their findings and assess their research question using qualitative methods. The final project will be due on the date of the final exam (determined by the College). The final two weeks of the semester will be devoted to working on the final project, both in class and outside of class in lieu of daily exercises and homework assignments.

## **COURSE STANDARDS**

### ***Academic Integrity***

Undergraduate students enrolled at Providence College assume a duty to conduct themselves in a manner appropriate to the College's mission as an institution of higher learning. Students are obliged to refrain from acts which they know, or under circumstances have reason to know, violate the academic integrity of the College. Violations of academic ethics include but are not limited to: cheating; plagiarism of another student's or another scholar's work; submitting the same or substantially similar work to satisfy the requirements of more than one course without permission; failure to cite sources adequately.

### ***Grading Philosophy***

Grades are a social construct (those of you who have taken Introduction to Sociology should understand more fully what that means). While I am obligated to give you a grade for your work in the course, my larger objective is to use grades to give you **feedback** on your work and ideas. Feedback and constructive criticism help you learn and will provide a barometer for you to improve your critical thinking and understanding of research methods. A growth mindset will serve you better inside and outside the classroom than the pursuit of perfection.

“If [people] define situations as real, they are real in their consequences.” – William and Dorothy Thomas

Because grades are a social construct, they also have real consequences. In class exercises will be valued for completion and graded with a check minus, check, and check plus grading system for feedback. All other assignments will be graded using the following rubric:

<u>Letter Grade</u>	<u>Average</u>
A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D	60-69
F	Less than 60

### ***Late Work***

Late work is accepted—to a point. I reserve the right to wait to grade late work together at the end of the semester. All assignments and daily exercises will be accepted on “Amnesty Day.” This is the one day during the semester that you can turn in late work. On the second to last Friday of the semester I will accept and grade any assignments missed over the course of the semester. There is a huge trade off to this—all assignments build on each other and missing feedback as part of the grading process may hinder your ability to complete successive assignments during the semester.

### ***Accessibility and Accommodations***

Students with disabilities (including those with psychological conditions, medical conditions and temporary disabilities) can request accommodations for this course by providing an Accommodation Letter issued by the Student Success Center. If you believe you might require accommodations, please contact the Student Success Center ([ssc@providence.edu](mailto:ssc@providence.edu)) or visit their office on the second floor of the library. In addition, [tutoring](#) and [writing](#) support are available through SSC.

### ***Family Policy***

All babies under six months old are welcome in class. Older babies, children and adults in your care are welcome in class occasionally to manage illness and unforeseen disruptions in childcare/eldercare. You may even see my children make an appearance in class during the semester. Please sit close to the door with your family member so that you can quickly step outside if meeting their needs becomes disruptive to the learning of other students. I ask that all students help me to create a welcoming environment for students that are parents and caregivers. I understand that balancing coursework and caregiving is very challenging (I had my children during graduate school). If you find that your caregiving responsibilities are interfering with your academic work, please contact me.

### ***Mental Health***

If you are struggling with anxiety, stress, depression or other mental health related concerns, please consider visiting the Personal Counseling Center. If you are concerned about a friend, please encourage that person to seek out their services. The Counseling Center is located Lower Bedford Hall and can be reached at 401-865-2342 and online at <https://personal-counseling.providence.edu>.

### ***Content Warnings***

It's important to note that in this course we may confront difficult ideas, images, and words. Our work may involve delicate and challenging discussions about topics such as racism, sexism, homophobia, and criticism of religious groups/beliefs. At times it may also involve reading texts that express offensive words and views.

We will study and talk about these topics and views to understand their social and historical context and consequences—never to endorse them. I promise to speak about them and facilitate our study with great sensitivity towards their potentially harmful impact, and to giving all students room to develop and express their own ideas in a respectful manner. I expect that you all will embrace those same commitments in our work together. If at any time you feel uncomfortable with material we're studying or are having difficulty adhering to these commitments, please speak to me individually.

### ***Technology***

The use of laptops and tablets are permitted in this course for notetaking and to reference class materials. Please keep your phones stowed for the duration of class time.

### ***Email Etiquette***

Email in an academic setting is practice for email communication in your future professional life. I expect you to extend the same courtesies to me that you would to your future (or current) colleagues. Please adhere to the following guidelines in our email communications:

- Include a subject line with the format “101.003: TOPIC OF YOUR EMAIL” e.g. “101.003: Office hours appointment”
- Begin the email with a polite salutation (Dear/Hello/Good Morning/Hi Professor Miller.). Please do not begin your email with “Hey.” That is a salutation to be used in your personal communications.
- State the purpose of your email in the first sentence or two (I am writing to let you know I have a doctor's appointment next Friday ... I have several questions about Chapter 5 and would like to schedule a time to discuss them with you.)
- End with a polite valediction (Thanks/Sincerely/Best, YOUR NAME)

Course Plan – Subject to Change at the Discretion of the Professor

Part I: Introduction		
T 1/16		Introductions and Syllabus Review
	Watch:	Sociology Crash Course. 2017. <a href="#">Social Research Methods</a> .
W 1/17		Quantitative vs. Qualitative
	Read:	Armstrong, Elizabeth A. and Laura Hamilton. 2013. <i>Paying for the Party</i> , Introduction.
		Parker, Kim. November 8, 2021. Pew Research Center. <a href="#">“What’s behind the growing gap between men and women in college completion?”</a>
1/19		Units of analysis and types of variables
	Resources:	Wright et al.: 1.2
Part II: R Boot Camp		
T 1/23		File Management & Installation
	Watch:	<a href="#">Bail, Chris. Installing R and RStudio, Summer Institute in Computational Social Science. 2020.</a>
	Resources:	OARC: RStudio
		Teetor: Chapter 1.1 – 1.8
		Grolemund: Appendices A and D, 5.9
		Grolemund & Wickham: 11.1 – 11.2
W 1/24		Objects & Data
	Resources:	Teetor: 2.1 – 2.5
		OARC: Working with R Packages, Data Frames
F 1/26		Viewing your data
	Resources:	OARC: Data Management
	<b>Due:</b>	<b>Homework 1</b>
T 1/30		Review & Group Work
W 1/31		Variable Creation I
	Resources:	Wright et al: 1.2 – 1.5, 3.4.2 – 5
F 2/2		Variable Creation II
	Resources:	<a href="#">Tidyverse documentation: Create, modify, and delete columns</a>
		<a href="#">Tidyverse documentation: Vectorised if-else</a>
		<a href="#">Tidyverse documentation: A general vectorized if-else</a>

	<b>Due:</b>	<b>Homework 2</b>
T 2/6		Review & Group Work
<b>Part III: Quantitative Analysis</b>		
W 2/7		Frequency tables
	Resources:	OARC, Frequency Tables and Crosstabs Khan Academy, Statistics and Probability, Units 1 - 4
F 2/9		Frequency distributions
	Resources:	OARC, Frequency Tables and Crosstabs Khan Academy, Statistics and Probability, Units 1 - 4
	<b>Due:</b>	<b>Homework 3</b>
T 2/13		Mean, Median, and Mode
	Resources:	OARC, Descriptive statistics for continuous variables Khan Academy, Statistics and Probability, Unit 3
W 2/14		Interpreting Descriptive Statistics
	Resources:	OARC, Frequency Tables and Crosstabs OARC, Descriptive statistics for continuous variables Khan Academy, Statistics and Probability, Units 1 - 4
F 2/16		Review & Group Work
	Resources:	Khan Academy, Statistics and Probability, Unit 4
	<b>Due:</b>	<b>Homework 4</b>
W 2/21		Sampling & The Law of Large Numbers
	Resources:	Khan Academy, Statistics and Probability, Unit 10
F 2/23		Central Limit Theorem Simulation
	Resources:	Khan Academy, Statistics and Probability, Unit 11
	<b>Due:</b>	<b>Homework 5</b>
T 2/27		Correlation
	Resources:	OARC, Linear Regression Khan Academy, Unit 5
W 2/28		OLS & LPM Bivariate Regression
	Resources:	OARC, Linear Regression Khan Academy, Unit 5



F 3/1		Review & Interpretations
	Review:	OARC, Linear Regression
		Khan Academy, Unit 5
	<b>Due:</b>	<b>Homework 6</b>
T 3/5		Multivariate Regression
	Resources:	OARC, Linear Regression
		Khan Academy, Unit 5
W 3/6		Multivariate Regression Simulation
	Resources:	OARC, Linear Regression
		Khan Academy, Unit 5
F 3/8		Review
	<b>Due:</b>	<b>Homework 7</b>
<b>Spring Break</b>		
Part IV: Qualitative Methods		
T 3/19		Introduction to Qualitative Methods
	Read:	Lareau: Chapter 1
	Watch:	<a href="#">Annette Laureau on Listening to People with Shamus Khan. 2021. Education and Inequality Workshop, Department of Sociology, University of Pennsylvania.</a>
W 3/20		Interview Preparation
	Read:	Lareau: Chapter 4
F 3/22		Good Interviews
	Review:	Lareau: Chapter 5
	<b>Due:</b>	<b>Homework 8</b>
T 3/26		Writing Questions
	Review:	Lareau: Chapters 4&5
W 3/27		In-Class Practice
	Review:	Lareau: Chapters 4&5
W 4/3		In-Class Practice II
	Review:	Lareau: Chapters 4&5
	<b>Due:</b>	<b>Homework 9</b>

F 4/5		Interview Day – No Class
T 4/9		Transcription
	Read:	Lareau: Chapter 8
W 4/10		Coding
	Read:	Lareau: Chapter 8
F 4/12		Building a Story & Writing it Up
	Read:	Calarco, Jessica McCrory. 2014. “Coached for the Classroom.” <i>American Sociological Review</i> .
	Review:	Armstrong, Elizabeth A. and Laura Hamilton. 2021. “Classed pathways to marriage: Hometown ties, college networks, and life after graduation,” <i>Journal of Marriage and Family</i> . (Introduction and conclusion.)
T 4/16		Review
	<b>Due:</b>	<b>Homework 10</b>
<b>Part V: Final Project</b>		
W 4/17		Research Questions and Scope
F 4/19		Project Design
T 4/23		Selecting a Research Question
	<b>Due:</b>	<b>Homework 11</b>
W 4/24		Preparing Your Variables
F 4/26		Quantitative Analysis and Findings
T 4/30		Qualitative Research Guide
	<b>Due:</b>	<b>Final Project R Script</b>
W 5/1		Interviews & Transcription
F 5/3		Coding & Building a Story
	<b>Due:</b>	<b>Qualitative Research Guide</b>
<b>Due:</b>	<b>Final Project</b>	<b>Upload Final Projects to Canvas</b>
5/8/24	Section 001	By 1:00pm
5/10/24	Section 002	By 3:30pm

