

SAN JOSÉ STATE UNIVERSITY



Quantitative Research Methods Syllabus

SOCI 104, Summer 2023, CRN: 30405

Welcome

Welcome to SOCI 104, Quantitative Research Methods. This course is designed to provide a basic understanding of quantitative research methods as they are used by sociologists. Quantitative research primarily involves the use of surveys, sampling, and the statistical analysis of numerical data to draw conclusions about larger populations. In this class, you'll learn about the research process from start to finish. We will explore research planning and design, sampling and data collection, and data analysis using statistical analysis software. You will gain first-hand experience by designing a study based on your own interests and analyzing data from the General Social Survey. You will document this experience by writing a research paper like those published in academic journals.

How will we keep in touch?

- Name: Jason DeHaan
- Phone: 408-755-0522
- Email: jason.dehaan@sjsu.edu
- Student hours: Wednesday: 4:00 to 5:00 pm

I am available to meet with you during my designated student hours. We can [meet via Zoom](#) or talk on the phone. My Zoom student hours are drop-in and will be open on Wednesday from 4:00 to 5:00 pm. If you would like to talk on the phone instead, please email me first. I only answer my phone when I am expecting a call. If you are unable to meet with me during my scheduled student hours, you can email me to schedule a different time. It helps if start by suggesting a time that would work well for you.

For urgent matters or simple questions, you can text me at 408-755-0522. I try to respond to text messages within two hours on weekdays. I will respond as I'm available during the evening and on the weekend.

I will make every attempt to reply to Canvas messages and emails within 24 hours. I will also be an active participant in your course and will communicate with you via assignment comments and class announcements.

How will the class meet?

This is an asynchronous online course, which means that we do not have any scheduled course meetings or live lectures, and you will not be required to participate according to a set schedule. All the required course materials, including readings, podcasts, videos, and assignments will be shared on Canvas and you'll have the flexibility to complete the coursework according to your own schedule. However, you will need to organize that schedule around the assignment due dates that are described later in the syllabus.

What if...? Our class plan for the unexpected

As we've all learned over the past few years, we need to be prepared for surprises. I want to make sure that if something happens (for ex., a power outage) and I cannot post the class materials or something prevents students from accessing them, that you know where to get information and help.

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What should you do if you can't reach me?

- I will try to respond to Canvas Inbox messages and emails within 24 hours, Monday through Friday. If you haven't heard from me within this time frame, please message me again! I'm human and sometimes I miss messages.
- You can email me via my SJSU email: jason.dehaan@sjsu.edu
- You can also text me: 408-755-0522
- If you are looking for information that is not specific to our class, you can find updates on the SJSU [homepage](#), [Facebook](#) or [Twitter](#) page. They may have updates or news before I do!

Name and pronouns

If you'd like to be known by a name different from the name on the roster or if you have pronouns you'd like me to use, please contact me. I will make every effort to call you by the name and pronouns you use. Please visit [the PRIDE Center Updating Name and Pronouns page](#) to learn how to change your name and/or pronouns at SJSU. You can also record your name using NameCoach in Canvas (go to Account, NameCoach Recorder) so that we can pronounce it correctly. If you'd like to learn more about personal pronouns, go to mypronouns.org.

Our community goals

What you can expect from me

- I will treat you with dignity and respect and be flexible to support your individual needs.
- I will provide you with a clear, organized course that is designed to ensure you meet our course outcomes in a meaningful manner.
- I will provide a variety of assignments to ensure your learning needs are met.
- I will grade assignments in a timely manner to facilitate your success on future assignments.
- I will be actively present in your learning.
- I will provide a supportive and safe environment for you to share and discuss ideas with your peers.
- I will reach out to you when I sense that you need support.

What I will expect from you

- Treat me and your peers with dignity and respect.
- Strive to be an active participant in this course.
- Maintain an open line of communication with me so I understand how to support you.
- Aim to meet due dates. Contact me if you have a concern with meeting a due date.
- Do your best to have patience with technology. There will be hiccups; expect them. We will get through them together.

What we can expect from each other

- We won't be perfect. We are human and will make mistakes at times. We will view mistakes as an opportunity to learn and grow.
- We will all strive to contribute regularly in collaborative activities to ensure all members of the community have ample opportunity to read/listen, reflect, and respond to all ideas.
- Disagreements are part of learning and growing, but we will always treat one another with dignity and respect.

What will you need for this class?

- You will not need a textbook. All the readings you need for this class will be shared with you on Canvas.

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- A computer capable of running the software program SPSS. Any Mac or Windows computer should work fine. SPSS will not run on tablets (like the iPad) or Chromebooks. If you do not have a computer that will work you try to borrow one from [Student Computing Services](#) or use [the computer lab on campus](#).
- We will be using Canvas for this course, so you will need access to a computer and the internet. Canvas is also mobile-friendly and can be used on your phone or tablet through the [Canvas Mobile App](#) or a mobile browser.

What assignments will you do in this class?

You will complete a variety of different types of assignments for this class. They are described below.

Course introduction assignments

You will have five introductory assignments to complete. I will ask you to upload a profile picture that represents you in some way, introduce yourself to your peers in a discussion thread, complete two Kahoot quizzes (more on those below), and take a quiz about the course introduction module on Canvas.

The profile photo, introduction discussion, and course introduction module quiz are worth 3 percent of your overall grade. The Kahoot quizzes will be included in the scoring for the other Kahoot quizzes you will complete this quarter. The course introduction assignments are due by July 10. They can be submitted up to three days late without penalty but will not be accepted after that.

Quizzes

You will complete three different types of quizzes for each module.

Kahoot quizzes

Kahoot! is a game-based learning website and Kahoot quizzes are simple online quizzes that I use to assess your knowledge at the beginning and end of each module. They are intended to help you “warm up” for the module and introduce some of the ideas that we will explore and to “wrap-up” by highlighting some of the key ideas from the module. I also use them to get a sense of where you’re at with the course materials. Each will each be about 5 questions and you should be able to complete each one within three minutes. They are timed and you will have about 30 seconds to respond to each question.

The Kahoot quiz questions are very simple and are only graded based on completion. If you complete the Kahoot quiz, you will get full credit for it. The quizzes will include correct/incorrect questions but many will also include polls or opinion questions that I use to learn more about what you think and/or how you feel.

Two Kahoot quizzes will be due for each module. The warm-up quizzes will be due on the first day of each module and the wrap-up quizzes will be due on the last day. They can be submitted up to three days late without penalty but cannot be submitted after that period.

The Kahoot quizzes are worth 10 percent of your overall course grade. You can skip three Kahoot quizzes without penalty.

Video quizzes

Video quizzes will be integrated into some of the lecture videos that I post. I am gradually starting to use video quizzes in my classes so they will be used inconsistently this quarter. If there is a video quiz for a lecture video, it will be available as soon as the video is published so you can complete it as you watch the video for the first time. The video quizzes will be multiple choice and the question will appear on your screen as you watch the video.

The video quizzes can be retaken as many times as you’d like. Retaking them will require you to rewatch the video though.

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The video quizzes will be due at the end of each module. They can be submitted up to three days late without penalty but cannot be submitted after that period.

The video quizzes are worth 5 percent of your overall grade. Your two lowest video quiz scores will be dropped.

Module quizzes

The module quizzes are traditional Canvas quizzes, and you will complete one for each module. They will primarily focus on the assigned sources, which can include readings, podcasts, and videos. They generally contain between 5 and 10 questions and will be timed, giving you four minutes per question. They cannot be retaken.

The module quizzes will be due at the end of each module. They can be submitted up to three days late without penalty but cannot be submitted after that period.

The module quizzes are worth 20 percent of your overall grade. Your two lowest module quiz scores will be dropped.

SPSS Assignments

You will complete eight total SPSS assignments. SPSS is statistical analysis software that you will use to analyze real-world data from the 2022 General Social Survey. The analysis you perform will be included in the research project assignment. The assignments will vary in difficulty with some being very simple exercises and others being more complicated and requiring careful planning and analysis.

Timely completion of the SPSS assignments will be very important. Many of them will build on things you learned in the previous assignments, and they will also teach you skills that will be necessary for the research project assignments.

The SPSS assignment due dates vary and can be found in the assignment table above. They can be submitted up to three days late without penalty but cannot be submitted after that period.

The SPSS assignments are worth 19 percent of your overall grade. The point values for each assignment vary and can also be found in the assignments table.

Research Project Assignments

Most of the work you complete for this class will help you prepare for the research project, which will culminate in the creation of a research paper that is comparable to an academic journal article. You will complete nine total research project assignments.

As with the SPSS assignments, timely completion of the research project assignments will be important. They are coordinated with the SPSS assignments and will also build on things you learned in previous assignments.

The research project assignment due dates vary and can be found in the assignment table above. They can be submitted up to three days late without penalty but cannot be submitted after that period.

The research project assignments are worth 43 percent of your overall grade. The research paper itself, which is the completed project you will submit, is worth 15 percent of your overall grade. The points values for the other assignments vary and can be found in the assignments table.

Extra Credit

I don't have any planned extra credit opportunities for the class. If something comes up that I think would make for a good opportunity I will announce it, but I very rarely offer it.

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Assignment table

The table below lists each of the assignments will complete along with due dates.

Assignment	Due Date	Percent of Grade
Profile photo	July 11	1
Getting to know each other discussion post	July 11	2
Course introduction quiz	July 11	2
Kahoot warm-up and wrap-up quizzes	Varies, see schedule	15
Video quizzes	Varies	5
Module quizzes	Varies, see schedule	25
SPSS Installation SPSS activity	July 12	1
Frequency Distributions SPSS activity	July 17	2
Topic Description research project assignment	July 17	5
Research Article Summary One research project assignment	July 17	5
Select Cases SPSS assignment	July 21	2
Split File SPSS assignment	July 21	2
Variable Transformation SPSS assignment	July 26	5
Research Design research project assignment	July 26	5
Composite Measures SPSS assignment	July 28	2
Research Article Summary Two research project assignment	July 28	5
Variable Summary research project assignment	August 2	3
Analysis Setup research project assignment	August 4	3
Measures of Central Tendency SPSS assignment	August 8	2
Two-way tables SPSS assignment	August 8	3
Two-way Table Interpretation research project assignment	August 9	1
Chi-square Interpretation research project assignment	August 9	1
Research Paper	August 11	15

How will you be graded?

I want to make sure you know how you're doing in this class, so I'll be updating grades regularly in Canvas. I will try to have your assignments graded within one week of submission, but it may take me longer sometimes.

The due dates listed above, and the late work policies described below are designed to help you manage your time and earn your desired grade in the class. I try to use them as guidelines to help you be successful, rather than strict rules used as a basis for punishment. I'm happy to extend flexibility where it's needed, and I understand if you need a bit of additional time to complete your work. If you experience any type of hardship or you're struggling in a way that prevents you from submitting your work within the time frames described below, please reach out to me. We don't have to talk about specific details, and I just need to know what type of support you need.

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Late work

Every assignment can be submitted up to three days late without any late penalty applied. I refer to this as a “grace period” and it’s available to everyone in the class automatically. You do not have to contact me to ask for permission or notify me that you plan to take advantage of it. You can just submit your work up to three days late and I will not apply any late penalty to it.

If you experience any type of hardship that prevents you from submitting your work within the time frames described above, please reach out to me. I am always happy to work with students and come up with a plan that will allow you to be successful in the class.

Incompletes

Incomplete grades are only intended to be assigned when a student has completed most of the coursework (about 75 percent) but faces some hardship that prevents them from completing the rest. If you want to take an incomplete in the course, please reach out to me as soon as possible to discuss it. I will ask you to share what’s going on, but I will not request specific details or ask you to “prove” your hardship.

Grading Scale

Grade	Percentage
A+	97 to 100%
A	93 to 96%
A-	90 to 92%
B+	87 to 89 %
B	83 to 86%
B-	80 to 82%
C+	77 to 79%
C	73 to 76%
C-	70 to 72%
D+	67 to 69%
D	63 to 66%
D-	60 to 62%
F	Below 60%

Attendance

During class, we'll be working together to learn and practice sociology. You are all very busy people, and I do everything I can to make our time together an active learning experience for you.

According to [SJSU policy](#), instructors may drop any student if they have not logged into the course Canvas shell on the first day of class or communicated to the instructor that they plan to continue on in the class within 48 hours of the first day of instruction. Students may also be dropped if they have not met the “stated course prerequisites” which, for this course, will be having not submitted coursework for one or more modules without communicating about that with me. I will always reach out via Canvas messaging before I drop anyone from the class.

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Course information

Catalog Description:

Quantitative research methods including survey research design, hypothesis formulation, questionnaire and interview design, scaling, sampling and data preparation and SPSS analysis. Completion of a class research project plus individual research reports. Required for majors.

Prerequisites:

SOCI 1 or equivalent, SOCI 15 or SOCI 102 or approved Statistics course from another school; SOCI 100W, SOCI 101 and upper division standing.

Course Goals:

- Develop an understanding of how knowledge is produced within quantitative approaches to sociological research. Students should be able to identify how data is collected and analyzed, and what that data allows us to know about the social world.
- Describe the connection between theory and research. Students should be able to describe how paradigms and theories shape research and the data collection process.
- Describe the research design process as it pertains to quantitative sociological approaches. Students should also be able to generally distinguish between quantitative and qualitative approaches to research design.
- Analyze and interpret quantitative data. Students should be able to manipulate and analyze numerical data to answer research questions.

Course Learning Outcomes:

- Identify and explain the role of paradigms and theories in research design.
- Differentiate between quantitative and qualitative research methods.
- Identify the key ethical principles that structure social science research.
- Identify and apply concepts used in quantitative research design.
- Identify and describe key steps in the quantitative research design process.
- Identify and distinguish between the different approaches social scientists use to select research participants and objects.
- Identify and apply best practices for survey design.
- Clean, format, and analyze quantitative data using SPSS.
- Interpret descriptive statistics.
- Communicate the results of a research project in a report.

Important dates

Last day to ADD this class: July 17. I'll give you an add code. Please add this class the same day I give you the add code so that you will be able to see our Canvas page.

Last day to DROP this class without a "W" and with a 100% refund: July 11. You will get a full refund if you drop this class before this date, and the class won't show up on your transcript.

Last day to DROP this class without a "W" and with a refund: July 12. You will get a 75% refund if you drop this class after July 11 and before July 12, and the class won't show up on your transcript.

Last day to DROP this class with a "W:" July 13. Please talk to me before you decide to drop this class so that we can discuss your progress and whether it is a good idea to drop the class. If you drop this class after July 12 and before July

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13, you will get a “W” on your transcript, which stands for withdrawal. Typically, transfer universities don’t count a “W” in your transfer GPA. You also will not receive a refund. To drop the class on or after July 13, you will need to use [the Course Drop/Withdrawal Petition](#).

Religious holidays

I realize there are a variety of religious celebrations that you observe. Please inform me within the first week of each semester about such holidays so we can work out an accommodation.

University Policies

University policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on Syllabus Information web page, which is hosted by the Office of Undergraduate Education. Make sure to visit this page to review and be aware of these university policies and resources.

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Schedule

This schedule is subject to change with fair notice. Any changes will be announced on Canvas.

The videos and module/video quizzes listed here may change. I am currently revising this course and may make additional changes during the class. The changes will not significantly increase or decrease the workload.

Date: July 10

Module 0: Course Introduction

- Complete: Course Introduction module warm-up Kahoot
- Review: Course introduction module
- Read: Class syllabus
- Complete: Profile photo
- Complete: Getting to know each other discussion post
- Complete: Course Introduction module quiz
- Complete: Course Introduction module warm-up Kahoot

Dates: July 11 to July 12

Module 1: Introduction to Quantitative Research Methods

- Complete: Introduction to Quantitative Research Methods module warm-up Kahoot
- Read: Human Inquiry and Science
- Complete: Human Inquiry and Science module quiz
- Watch: Introduction to Social Science Research
- Complete: Introduction to Social Science Research video quiz
- Read: The General Social Survey
- Complete: The General Social Survey module quiz
- Review: Getting Started with SPSS tutorial
- Complete: Getting Started with SPSS video quiz
- Review: How to Install SPSS tutorial
- Review: How to Download, Save, and Open the GSS Data tutorial
- Complete: SPSS Installation Activity
- Complete: Introduction to Quantitative Research Methods module wrap-up Kahoot

Dates: July 13 to July 17

Module 2: Ethics and Issues

- Complete: Ethics and Issues module warm-up Kahoot
- Read: The Ethics and Politics of Social Research
- Complete: The Ethics and Politics of Social Research module quiz
- Listen: When Great Minds Think Unalike: Inside Science's 'Replication Crisis'
- Complete: When Great Minds Think Unalike: Inside Science's 'Replication Crisis' module quiz
- Watch: Ethics and Issues: Introduction
- Complete: Ethics and Issues: Introduction video quiz
- Watch: Ethics and Issues: Example: Bike Party Research
- Watch: Ethics and Issues: Ethical Obligations
- Complete: Ethics and Issues: Ethical Obligations video quiz
- Watch: Ethics and Issues: Addressing Ethical Issues
- Complete: Ethics and Issues: Addressing Ethical Issues video quiz

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- Watch: How to Create Frequency Distributions and Graphs in SPSS
- Complete: How to Create Frequency Distributions and Graphs in SPSS video quiz
- Complete: Frequency Distributions SPSS assignment
- Complete: Topic Description research project assignment
- Complete: Research Article Summary One research project assignment
- Complete: Ethics and Issues module wrap-up Kahoot

Dates: July 18 to July 21

Module 3: Theory

- Complete: Theory module warm-up Kahoot
- Read: What is Theory?
- Read: Does Epidemiological Theory Exist? On Science, Data, and Explaining Disease Distribution
- Complete: Does Epidemiological Theory Exist? On Science, Data, and Explaining Disease Distribution module quiz
- Listen: How a Theory of Crime and Policing Was Born, and Went Terribly Wrong
- Complete: How a Theory of Crime and Policing Was Born, and Went Terribly Wrong module quiz
- Watch: Scientific Thinking
- Complete: Scientific Thinking video quiz
- Watch: Theory: Theory Explained
- Watch: How to Use the Select Cases Function in SPSS
- Watch: How to Use the Split File Function in SPSS
- Complete: Select Cases SPSS assignment
- Complete Split File SPSS assignment
- Complete: Theory module wrap-up Kahoot

Dates: July 24 to July 26

Module 4: Quantitative Research Design

- Complete: Quantitative research design module warm-up Kahoot
- Read: Introduction to Research Design
- Read: Research Design
- Watch: Explanation in the social sciences
- Watch: Units of analysis
- Watch: Levels of measurement
- Complete: Research Design module quiz
- Read: Dependent, Independent, and Control Variables
- Complete: Variable Types module quiz
- Review: Transforming Variables in SPSS: Getting Started
- Watch: Transforming Variables in SPSS: The Process
- Watch: Transforming Variables in SPSS: Digging In
- Complete: Variable Transformation module quiz
- Complete: Variable Transformation SPSS assignment
- Complete: Research Design research project assignment
- Complete: Quantitative research design module wrap-up Kahoot

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Dates: July 27 to July 28

Module 5: Indexes and Scales

- Complete: Indexes and Scale module warm-up Kahoot
- Read: Introduction to Composite Measures
- Read: Indexes, Scales, and Typologies
- Complete: Indexes and Scales module quiz
- Watch: How to Create Composite Measures in SPSS
- Complete: Composite Measure SPSS assignment
- Complete: Research Article Summary Two research project assignment
- Complete: Indexes and Scale module wrap-up Kahoot

Dates: July 31 to August 2

Module 6: Sampling

- Complete: Sampling module warm-up Kahoot
- Read: Introduction to Sampling
- Read: The Logic of Sampling
- Complete: The Logic of Sampling module quiz
- Watch: Sampling: Introduction
- Complete: Sampling: Introduction video quiz
- Watch: Sampling: Probability vs. Non-probability
- Watch: Sampling: Probability Sampling Approaches
- Watch: Sampling: Non-probability Sampling Approaches
- Complete: Variable Summary research project assignment
- Complete: Sampling module wrap-up Kahoot

Dates: August 3 to August 4

Module 7: Survey Research

- Complete: Survey research module warm-up Kahoot
- Read: Survey Research
- Complete: Survey Research module quiz
- Watch: Survey Research Overview
- Watch: Questionnaire Design
- Complete: Analysis Setup research project assignment
- Complete: Survey research module wrap-up Kahoot

Dates: August 7 to August 11

Module 8: Quantitative Data Analysis

- Complete: Quantitative data analysis module warm-up Kahoot
- Read: Quantitative Data Analysis
- Complete: Quantitative Data Analysis module quiz
- Read: Writing Hypotheses
- Watch: How to Calculate Measures of Central Tendency in SPSS
- Complete: Measures of Central Tendency module quiz
- Complete: Measures of Central Tendency SPSS assignment
- Watch: How to Create Two-way Tables in SPSS
- Read: Two-way Table Analysis

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- Complete: Two-way table module quiz
- Complete: Two-way Tables SPSS assignment
- Complete: Two-way table Interpretation research project assignment
- Read: Calculating and Interpreting Chi-Square
- Complete: Chi-square Interpretation research project assignment
- Complete: Research Paper research project assignment
- Complete: Quantitative data analysis module wrap-up Kahoot