

## Sociology 201 – Social Statistics – Spring 2020

Tuesday/Thursday 8:15-9:30 am  
Chambers 2198 or Library B110  
Dr. Gayle Kaufman, *she/they*

### Course description

This course covers the study of statistics for the analysis of social science data. We will focus on how statistics are actually used in the social sciences: as a tool for advancing understanding of the social world. Throughout the course we will apply statistical tools to interesting questions about the real world. The course begins with descriptive statistics, tools for describing and summarizing data, and moves into inferential statistics, which uses probability theory to assess whether information from a single sample can be generalized to the population of interest. Statistics covered include: t tests, ANOVA, chi-square, correlation and regression. The approach to statistics in this course is more about thinking with numbers than about how to compute them. Although we will cover some simple computation, our emphasis is on understanding the logic and application of statistics and interpreting their meaning for concrete topics in the social sciences. We will learn how to use SPSS (statistical software) to analyze data. Prior software experience is unnecessary.

Fulfills: Mathematical and Quantitative Thought distribution requirement, Sociology major requirement, Gender and Sexuality Studies major and minor requirement, Data Science interdisciplinary minor requirement

### Learning outcomes

By the end of this course, you will be able to:

1. Organize, present, and interpret quantitative data
2. Understand the logic of hypothesis testing
3. Choose appropriate statistical procedures for given research questions
4. Master the most common statistical tests used by sociologists
5. Create and manage data files using *SPSS* software

## Outside the classroom

**Drop in office hours** – no appointment necessary

- Tuesdays 9:40-11:00 in Preyer 104
- Wednesdays 12:30-2:00 at Commons (Sociology table)

**Scheduled office hours** – please **email** to schedule an appointment during these times

- Thursdays 2:00-5:00
- Fridays 2:00-5:00

**Contact me:**

- [gakaufman@davidson.edu](mailto:gakaufman@ davidson.edu)
- 704-894-2485

Email is the best way to contact me outside of class and office hours. I will do my best to respond to you within 24 hours Monday through Friday. I may take longer to respond over weekends or breaks.



## Course requirements

- Practice Problems (15%)**  
 Practice problems and SPSS problems from the end of each chapter will be due on Fridays, as noted below in the schedule of readings and assignments. For the practice problems, you will turn in the even-numbered problems. Make sure to show all work for answers that require calculations. For the SPSS problems, you will turn in your output and answers/interpretations. Drop off at my office by 5 pm.
- Exams (60%)**  
 There will be 3 exams during the semester. All exams are take home. All exams are closed book, but I will provide you with any necessary formulas and/or statistical tables. The first exam will cover material from chapters 1 through 5. The second exam will cover material from chapters 6 through 10. The third exam will cover material from chapters 11 through 14. Each exam is worth 20%.
- Research Report (25%)**  
 You will write a report in which you test three hypotheses. This is your chance to apply what you have learned in class this semester. You will need to select a data source, variables, and appropriate tests. You must include at least one regression. Each student will give a brief presentation of their results at the end of the semester. The report and presentation are worth 25% of your grade.

## Grading

Practice Problems	15%
Exam 1	20%
Exam 2	20%
Exam 3	20%
<u>Research Report</u>	<u>25%</u>
Total	100%

### Grading scale

A 94-100	A- 90-93	B+ 87-89
B 84-86	B- 80-83	C+ 77-79
C 74-76	C- 70-73	D+ 67-69
D 60-66	F <60	

## Materials

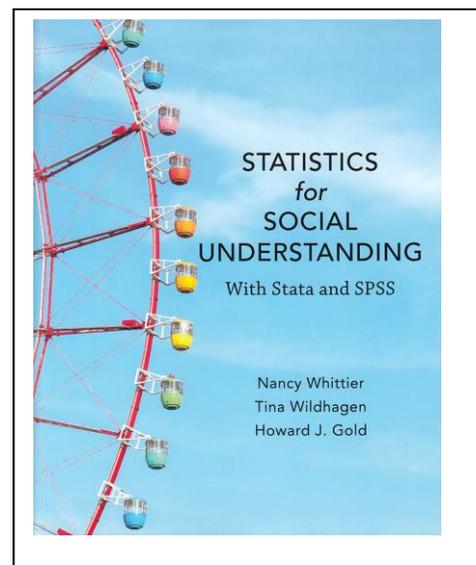
\* Whittier, N., Wildhagen, T., & Gold, H. J. 2020. *Statistics for Social Understanding*. Lanham, MD: Rowman & Littlefield.

\* Textbook website: <https://textbooks.rowman.com/whittier>. This website has various text resources as well as data sets.

\* A calculator (a very basic one is fine) – you should bring this to every class.

\* SPSS is on all lab computers.

The book is available for purchase at the bookstore and on reserve at the library.



## Davidson College Honor Code

Each Davidson student is honor bound to refrain from stealing, lying about College business, and cheating on academic work. Stealing is the intentional taking of any property without right or permission. Lying is intentional misrepresentation of any form. Cheating is any practice, method, or assistance, whether explicitly forbidden or unmentioned, that involves any degree of dishonesty, fraud, or deceit. Cheating includes plagiarism, which is representing another's ideas or words as one's own. Each student is responsible for learning and observing appropriate documentation of another's work. Each Davidson student is honor bound to report immediately all violations of the Honor Code of which the student has first-hand knowledge; failure to do so is itself a violation of the Honor Code.

<http://www.davidson.edu/about/distinctly-davidson/honor-code>

- **Note on working together:** You are allowed and encouraged to work on problems together and study for exams together. However, all work on exams and the research report must be your own.
- **Note on calculators:** You should bring a calculator to every class. You may use a calculator on assignments and exams. However, you may only use calculators for basic mathematical functions (addition, subtraction, multiplication, division). You may NOT use statistical functions on the calculator.
- **Note on computers:** You may use a computer when required on your assignments. You may NOT use a computer for problems meant to be done by hand.

## Access and Disability Services Accommodations

The college welcomes requests for accommodations related to disability and will grant those that are determined to be reasonable and maintain the integrity of a program or curriculum. To make such a request or to begin a conversation about a possible request, please contact the Office of Academic Access and Disability Resources, which is located in the Center for Teaching and Learning in the E.H. Little Library: Beth Bleil, Director, [bebleil@davidson.edu](mailto:bebleil@davidson.edu), 704-894-2129; or Alysén Beaty, Assistant Director, [albeaty@davidson.edu](mailto:albeaty@davidson.edu), 704-894-2939. It is best to submit accommodation requests within the drop/add period; however, requests can be made at any time in the semester. Please keep in mind that accommodations are not retroactive.

## Approaching Statistics with a Growth Mindset:

A growth mindset views intelligence as something that develops over time through hard work and effort, and research in neuroscience has demonstrated the human brain's ability to become smarter in response to targeted effort. With this in mind, you are encouraged to do the following:

- Come to class. Arrive on time.
- Ask questions in class.
- Visit office hours to discuss course materials.
- Work through examples from the textbook on your own. The answers to the odd-numbered practice problems are in the back of the book.
- Read the Application and Closer Look boxes in the textbook closely and work the problems presented in them.
- The more you DO statistics, the better you will learn.

## Course Outline

Week of	Tuesday	Thursday	Due Friday
Jan 14	Welcome to statistics!	Chapter 1 – introduction to statistics	Ch. 1 problems
Jan 21	Chapter 2 – organization and presentation of data	Chapter 3 – examining relationships between variables	Ch. 2 and 3 problems
Jan 28	Chapter 4 – measures of central tendency	Chapter 4 continued	Ch. 4 problems
Feb 4	Chapter 5 – measures of variability	Chapter 5 continued	Ch. 5 problems
Feb 11	Chapter 6 – probability and the normal distribution	Chapter 6 continued	Ch. 6 problems <b>*Exam 1 due</b>
Feb 18	Chapter 7 – sampling and sampling distributions	Chapter 7 continued	Ch. 7 problems
Feb 25	Chapter 8 – estimating population parameters	Chapter 8 continued	Ch. 8 problems
Mar 3	<b>NO CLASS Spring Break</b>	<b>NO CLASS Spring Break</b>	
Mar 10	Chapter 9 – the logic of hypothesis testing	Chapter 9 continued	Ch. 9 problems
Mar 17	Chapter 10 – t tests	Chapter 10 continued	Ch. 10 problems
Mar 24	Chapter 11 – ANOVA	Chapter 11 continued	Ch. 11 problems <b>*Exam 2 due</b>
Mar 31	Chapter 12 – chi-square test	<b>NO CLASS SSS meetings</b>	
Apr 7	Chapter 12 continued	Chapter 13 – competing explanations	Ch. 12 problems
Apr 14	<b>NO CLASS Easter Break</b>	Chapter 14 – regression and correlation	Ch. 13 problems
Apr 21	Chapter 14 continued	Open lab session	Ch. 14 problems
Apr 28	<b>Research presentations</b>	<b>Research presentations</b>	<b>*Exam 3 due</b>
May 5	<b>Research presentations</b>	<b>NO CLASS Reading Day</b>	

**Research report due: May 11 at 5:15 pm for seniors or May 13 at 5:15 pm for all others**