



The University of Western Ontario
SOCIOLOGY 2205A-650
Statistics for Sociology
Summer 2021

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Office Hours (By Appointment):

Tuesdays and Thursdays 4:00-5:00pm

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Course Description:

Sociology 2205 is an introductory course designed to help you understand techniques of statistical analysis used in sociology and other social sciences, including descriptive statistics, the normal curve, hypothesis testing, and various measures of association. The emphasis in the class will be not on computation but on understanding the science and art of analysis and interpretation of findings. The material in this course can be roughly divided into two sections:

1. The first section will cover **descriptive statistics**. Here you will learn how to summarize and describe data, first one variable at a time and then pairs of variables. You will learn basic numerical and graphical methods appropriate to categorical and continuous variables.
2. The second section will focus on **inference**, where you will learn how to generalize sample results to the population. This part will start with the basic logic of inference, focusing on the importance of sampling distributions. Then you will apply the logic of inference to univariate and bivariate hypothesis tests and confidence interval calculations.

Communication:

1. Primary mode of communication will be the **OWL Forums**. The forums will serve as a tool for us to collaborate with one another as we navigate the material each week. I will aim to respond to students' messages within 24 hours between Monday and Friday.
2. **Should there be a problem** with OWL or if you have questions of a **personal nature**, please send me an email (ajehn2@uwo.ca).
3. All course material will be available via OWL.

Universal Accommodation:

This has been an exceptionally difficult year for most of us. Therefore, this class will apply **universal accommodations** to help you manage the workload and decrease stress. The accommodations include the following:

1. The **bi-weekly quizzes** can be completed at any point **throughout the week they are due**, by **Sunday at 11:55PM**. The quizzes will take no more than **10-15 minutes** for the prepared student, but you will be allocated **45 minutes** from the time you start each quiz.

- a. In addition, your grade will be based on the **best 5 of 6 quizzes** – so you can skip one, or do poorly on one, and your grade will not be affected. The lowest score (whether it's a low score or a zero because you skipped a quiz) will be dropped automatically when calculating the final grades.
2. The **midterm** will be designed to require **75 minutes** for the prepared student, but you will be allocated **2.5 hours** from the time you start the midterm.
3. For the **final assignment**, there will be **no late penalty for the first 5 days after the due date**. **On day 6**, I will begin **subtracting 8%** from the grade earned **per day**.
4. The **final exam** will also be designed to require **75 minutes**, but you will be allocated **2.5 hours**.

These **universal accommodations** exceed standard accommodations. Therefore, you do not need to request academic accommodation or use self-excused absences should something come up during the semester. **You do not need to contact me**, for instance, if you simply decide to skip a quiz one week or if you will be submitting your assignment a couple days late.

Prerequisite:

1.0 Sociology course at the 1000 level.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. The decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

Antirequisite(s):

Biology: 2244A/B; Economics: 2122A/B, 2222A/B; Geography: 2210A/B; Health Sciences: 3801A/B, MOS 2242A/B; Psychology: 2810, 2820E, 2830A/B, 2850A/B, 2851A/B; Social Work: 2207A/B; Statistical Sciences: 2035, 2141A/B, 2143A/B, 2244A/B, 2858A/B.

Learning Outcomes:

After a successful completion of the course, you will be able to

- Understand and appreciate how statistics are used for social-science inquiry
- Comprehend basic statistics used in academia, industry, and government
- Independently conduct elementary quantitative analysis of data
- Critically assess the presentation of statistical data in everyday life (i.e., the media)

Required Materials:

1. **Textbook:** “Introductory Statistics” by Illovsy and Dean (2018), OpenStax, Rice University. This is a great textbook and available FREE online at <https://openstax.org/details/books/introductory-statistics>. You have the option of viewing the book’s chapters online or downloading a PDF version. Each chapter has a number of example and “try it” problems throughout, as well as practice questions at the end. If you wish, you can also buy the actual printed book online from various sources for a

reasonable price. We will only cover select chapters and chapter sections – I will indicate which sections to read for each week in my instructions.

2. **Statistical Software:** Stata 16 (older versions are equally fine).

We will be using Stata **throughout** the semester and you will need to have access to it. You can purchase a 6-month license for Stata Version IC here:

<https://www.stata.com/order/new/edu/profplus/student-pricing/> (\$48 USD).

This is the easiest option to have the software installed and available on your own computer.

3. **Calculator.**

Any will do, even the one on your phone or computer.

Method of Evaluation:

Evaluation Breakdown:

1. Bi-Weekly Quizzes (20%)
2. Midterm (20%) – June 11th
3. Final Assignment (30%) – July 19th
4. Final Exam (30%) – TBD

1. Bi-Weekly Quiz (20%):

The bi-weekly quizzes are designed to motivate your work and to check your understanding throughout the course. Quizzes will open at the **beginning of the week they are due** and close **Sunday at 11:55PM. Please see course schedule for due dates.** There will be a **total of 6 quizzes but only your best 5** will be included in the calculation of your final grade. Therefore, **each quiz is worth 4%** of your final grade.

2. Midterm (20%):

The midterm will be administered through OWL on **Friday June 11th (due by 11:55PM)**. You can take the midterm any time throughout the day, the allocated time will begin once you access the midterm. **There are no makeup midterms.** Should you miss the midterm, your final exam will be reweighted and worth 50% of your grade.

3. Final Assignment (30%):

We will be building towards the final assignment throughout the duration of the semester (**due Monday July 19th by 11:55PM**). The **Stata tutorials and labs** will be your best resource to successfully complete this assignment. The assignment will be comprised of some univariate and bivariate statistics, basic inference, and data visualizations. An overarching introduction and conclusion will also be required.

4. Final Exam (30%):

The final exam will be administered during the regular summer exam period. Although the **final exam is cumulative**, questions will be weighted towards the material covered in the second part of the course.

Course Schedule and Readings:

Weekly Date	Topics	Readings and Deadlines
May 3 rd	Week 1. Introduction to statistics, samples, populations, and types of variables	Chapter 1: Intro, 1.1-1.3 Quiz 1 - May 9th by 11:55PM
May 10 th	Week 2. Descriptives for categorical variables	Chapter 2: Intro, 2.1-2.3
May 17 th	Week 3. Descriptives for continuous variables	Chapter 2: Intro, 2.4-2.7 Quiz 2 - May 23rd by 11:55PM
May 24 th	Week 4. Probabilities and the normal distribution	Chapter 4: Intro, 4.1-4.2 Chapter 5: Intro, 5.1 Chapter 6: Intro, 6.1-6.2
May 31 st	Week 5. Sampling distributions	Chapter 7: Intro, 7.1-7.3 Quiz 3 - June 6th by 11:55PM
June 7 th	Week 6. Midterm 1	Friday June 11th by 11:55PM
June 14 th	Week 7. Confidence intervals for population means and proportions	Chapter 8: Intro, 8.1-8.3 Quiz 4 - June 20th by 11:55PM
June 21 st	Week 8. Hypothesis tests about a population mean	Chapter 9: Intro, 9.1-9.6
June 28 th	Week 9. Hypothesis tests about two population means	Chapter 10: Intro, 10.1-10.4 Quiz 5 - July 4th by 11:55PM
July 5 th	Week 10. Chi square tests	Chapter 11: Intro, 11.1-11.4
July 12 th	Week 11. Correlations	Chapter 12: Intro, 12.1-12.5 Quiz 6 - July 18th by 11:55PM
July 19 th	Week 12. Simple Linear Regression	No readings Final Assignment: July 19th by 11:55PM
TBD	Final Exam	

Please note schedule and readings are subject to change.

Important Policies

A Note on Plagiarism:

Students must write their assignments in their own words. Whenever students take an idea from another author, they must acknowledge their debt both by using quotation marks where appropriate and by proper referencing such as footnotes or citations. Plagiarism is a major scholastic offence (the Scholastic Offence Policy can be viewed in the Western Academic Calendar).

Plagiarism Checking:

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (<https://www.turnitin.com/>).

Policy on Accommodation for Medical Illness

Western's policy on Accommodation for Medical Illness can be found here:

www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf

Students must see the Academic Counsellor and submit all required documentation in order to be approved for certain accommodation:

https://counselling.ssc.uwo.ca/procedures/medical_accommodation.html

Accessibility Options:

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 519 661-2111 x 82147 for any specific question regarding an accommodation. Information regarding accommodation of exams is available on the Registrar's website:

www.registrar.uwo.ca/academics/examinations/accommodated_exams.html

Scholastic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following web site:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf

Mental Health

Students who are in **emotional/mental** distress should refer to Mental Health @Western

(www.uwo.ca/health/mental_wellbeing/index.html) for a complete list of options how to obtain help.