The University of Western Ontario

SOCIOLOGY 3306A-001
Quantitative Research Methods
Fall 2024
Delivery Method - in-person

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This is a DRAFT only. Please see the course site for the final version.

Course Description: Mandatory for third-year Sociology students in an Honours Specialization. In this course students will learn to evaluate quantitative sociological research and gain hands-on experience carrying out and writing up a research project that investigates current social issues. Topics include: posing a research question, developing concepts and measures, and analyzing quantitative survey data.

Prerequisite(s): **Sociology 2205A/B and Sociology 2206A/B.**

Unless you have either the prerequisites or written special permission from your Dean to enroll in the course, 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.

Anti-requisite(s): none

Course Objectives and Learning Outcomes:

The goal of this course is to provide students with a sociological understanding of conducting and evaluating quantitative research in sociology. Starting from the formulation of research questions and working through the data collection and analyses stages, this course introduces the quantitative research process and the fundamental methodological concepts, analytic tools, and procedures. Throughout the course, an emphasis will be placed on the relationship between theory and methods, the meaning behind the numbers, and telling stories based on evidence. Students will learn how to apply them in real research settings by developing their own research projects.

At the end of the course, students will be able to:

- understand the process of quantitative research in social science
- develop a set of quantitative research questions, which are theoretically informed and grounded in existing research
- appreciate the relationship among theory, concepts, measures, and analytical design; assess and evaluate best practices in research methods of data collection

- apply univariate, bivariate, and multivariate analysis to produce empirical evidence
- interpret the results of multivariate quantitative data analyses

Course Material:

Textbook: Singleton, R. and B. Straits. 2018. Approaches to Social Research, 6th Ed. Oxford University Press.

Please consult the Western Bookstore for the prices and purchase options:
https://bookstore.uwo.ca/textbooks-and-course-materials

Required supplemental readings:

In addition to the textbook, other materials which are assigned as a part of the required readings will be available on the OWL Brightspace.

Sample Dataset of Instruction:

The General Social Survey, Cycle 27: Social Identity (Statistics Canada, 2013) will be used to illustrate examples and concepts taught in the course (see: https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=5024). A few additional datasets may be introduced to reflect a wider range of sociological research areas, if requested.

Statistical Computing:

The statistical computing for the course will be done using STATA. STATA is available on computers located in the Social Science computing lab (Room 1032).

If you would like to work on STATA for a course project from home, it is also available via MyVLab (https://myvlab.uwo.ca/), free of charge for the students registered in this course. You can find access information at: https://myvlab.uwo.ca/using_mfa_on_myvlabs.html.

If you are having trouble gaining access, please call either the SSNDS main office (519-661-2152) or the ITS Help Desk (519-661-3800). There is some lab time set aside during class hours, but you will most likely need to spend a significant amount of your own time.

Communication:

Email is the best way to contact me. Students will typically receive a response in 24-48 hours.. Students are responsible for checking the course OWL Brightspace site (https://westernu.brightspace.com/d2l/login) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class.

Method of Evaluation:

The evaluation methods described in the course outline are essential requirements for the course. The final grade will be determined as follows:

- Midterm exam 25% October 29th (in-class)
- In-lab assignment 15% November 26th (in-class)
- Project – Assignment 1: Literature review 20% October 8th
- Project – Assignment 2: Final report 40% December 1st

Mid-term exam (25%):

The evaluation methods described in the course outline are essential and mandatory requirements for the course.

A mid-term exam is scheduled for **October 29th**. It will take place inperson during class time. It will be a closed-book exam to test knowledge about fundamental quantitative research design and no use of electric devices will be permitted. The exam consists of a combination of multiple choice and short answer questions and will require knowledge of the textbook, additional assigned readings, and lectures up to the week prior to the exam date. You are responsible for all the material in the assigned chapters and readings even if this material is not covered in class. Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Instructors are permitted to designate one assessment per course per term as requiring supporting documentation to receive academic consideration. For this course the following assessment has been designated as requiring supporting documentation: Mid-term exam.

In-lab Assignment - Data analysis challenge (15%): The activity is scheduled for **November 26th** during class time. Students will be assessed for hands-on skills in working with and interpreting empirical results from the data. You are allowed to consult all the course materials previously introduced in class but expected to work under a time-constrained setting. The questions will be presented at the beginning of the lab, and the results should be submitted via OWL Brightspace by the end of the class time.

For the in-lab assignment, students are expected to submit the assignment by the deadline listed. Should illness or extenuating circumstances arise, students are permitted to submit their assignment up to 72 hours past the deadline without academic penalty. Should students submit their assessment beyond 72 hours past the deadline, a late penalty of 5% per day will be subtracted from the assessed grade. As flexible deadlines are used in this course, requests for academic consideration will not be granted.

Course Project - Quantitative Research Paper (60%): To demonstrate your knowledge of quantitative research methods, you will be asked to develop a research paper using the Canadian General Social Survey (GSS). It is encouraged to select a research topic which can be addressed by the GSS, Cycle 27, Social Identity. (It is possible for you to explore themes outside of the scope of this specific dataset. If a research project requires alternative dataset, student must seek permission by the instructor.) This assignment will consist of two components:

- **Assignment 1: Literature review and formulating a research question (20%)** – Approx. 5 pages double-spaced. **Due on October 8th, by 11:55PM**.

- **Final research paper (40%)** – Approx. 12 pages doubled-spaced. Due on **December 1st, by 11:55PM**

Please note that because the submission deadline for this assessment Course Project - Quantitative Research Paper already includes flexibility in the form of a 48-hour submission window, the instructor reserves the right to deny academic consideration for assignments which are submitted following the end of the period of flexibility.

The final research paper builds on the first assignment, such that students are expected to use the first assignment as a part of the final paper. In doing so, students are encouraged to modify and improve the first assignment, reflecting the feedback. Both papers should be electronically submitted by the OWL Brightspace.

Additional Notes About Grading

There will be no opportunities for extra credit. I encourage you to work consistently throughout the semester, and to reach out to other students in the class or to me as soon as you have trouble with the material. Consistent with departmental guidelines, it is expected that the class average for this course will be around 73-80%. Should the final overall grades yield a value significantly below this range, grades will be adjusted upward to ensure an appropriate average for the class.

Contingency plan for an in-person class pivoting to 100% online learning

In the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, affected course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will not change. Any remaining assessments will also be conducted online as determined by the course instructor.

Student Absences:

While this course does not have a participation component, because you cannot participate and actively engage with the materials and your colleagues if you are not here, students are expected to attend at least 75% of the classes for this course. This requirement will only be waived in exceptional circumstances with documentation. While attendance is not an explicit part of the evaluation breakdown, your final grade will be lowered if you miss an excessive number of classes. Please inform me as soon as possible if you are unable to attend a class for medical or personal reasons.

If you are unable to meet a course requirement due to illness or other serious circumstances, please follow the procedures below.

University policy on academic considerations are described here. This policy requires that all requests for academic considerations must be accompanied by a self-attestation. Further information about academic considerations, and information about submitting this self-attestation with your academic consideration request may be found here. Please note that any academic considerations granted in this course will be determined by the instructor, in consultation with the academic advisors in your Faculty of Registration, in accordance with information presented in this course outline."

Students must familiarize themselves with the Policy on Academic Consideration – Undergraduate Students in First Entry Programs. Students missing course work for medical, compassionate or extenuating circumstances can request academic consideration by completing a request at the central academic consideration portal. Students are permitted one academic consideration request per course per term without supporting documentation. Note that supporting documentation is **always** required for academic consideration requests for examinations scheduled by the office of the registrar (e.g. December and April exams) and for practical laboratory and performance tests typically schedule during the last week of the term. Students should also note that the instructor may designate one assessment per course per term that requires supporting documentation. This designated assessment is described elsewhere in this document. Please note that any academic considerations granted in this course will be determined by the instructor of this course, in consultation with the academic advisors in your Faculty of Registration, in accordance with information presented in this course outline. Supporting documentation for academic considerations for absences due to illness should use the Student Medical Certificate or, where that is not possible, equivalent documentation by a health care practitioner.

Students with an approved absence from an in-class test or exam will be required to write a makeup exam. Course professor or teaching assistant(s) may not be available to respond to questions during the makeup exam. Students should be aware that the make-up test will not necessarily be in the same format, be of the same duration, or cover the same material as the original test.

Course Schedule and Readings:

*Notes: TB refers to the textbook. Please complete the readings prior to class. This schedule is subject to change to meet the needs of the course requirements. Any changes will be announced on OWL Brightspace.

TB: Singleton, R. and B. Straits. 2018. *Approaches to Social Research, 6th Ed.* Oxford University Press.

R&R: Remler, D. K. and G. G. Van Ryzin. 2021. Research methods in Practice, 3rd Ed. Sage Publications, Inc.

Week	Date	Topic	Lab	Readings	Assignments Due
1	September 10	Course Introduction		TB Ch 1 & 2	
2	September 17	Why do we need theory?		TB Ch 2 & 17	
3	September 24	Research Design		TB 4	
4	October 1	Survey Research Methods - Measurements		TB Ch 5	
5	October 8	Survey Research Methods – Sampling		TB Ch 6	**Literature review & Research questions**
6	October 15	**Reading Week! NO CLASS**			
7	October 22	Survey Research Methods – Instrumentation		TB Ch 9 & 10	

8	October 29	**Midterm (in class)**			**Midterm (in class)**
9	November 5	Data Processing and Introductory Analysis		TB Ch 15	
10	November 12	Multivariable Analysis Part A		R & R Ch 12 & TB pp. 532-539 ("Elaboration")	
11	November 19	Multivariable Analysis Part B		TB Ch 17	
12	November 26	**In-lab Assignment**		R & R Ch13	**In-lab Assignment**
13	December 3	Ethics		TB Ch 3	**Final Research Paper due December 1st**

Artificial Intelligence:

Within this course, students are permitted to use AI tools exclusively for information gathering and preliminary research purposes. These tools are intended to enhance the learning experience by providing access to diverse information sources. However, it is essential that students critically evaluate the obtained information, exercise independent thinking, and engage in original research to synthesize and develop their own ideas, arguments and perspectives. The use of AI tools can serve as a starting point for exploring a topic, with students expected to uphold academic integrity by appropriately attributing all sources of information and avoiding plagiarism. Essays, written assignments and/or lab reports should reflect the student's own thoughts and independent written work. Students should also generate their own figures (e.g., graphs, diagrams) rather than using AI generated ones. By adhering to these guidelines, students contribute to a responsible and effective learning environment that promotes critical thinking, independent inquiry and all them to produce original written contributions. The same principles also apply to the use of translation software to support the writing the essays and other written assessments.

Inappropriate use of AI tools, including representing AI-generated written works as your own, is an academic offense equivalent to plagiarism (for more detail, please review Academic Policies on Scholastic Offense and Plagiarism below) and will be processed in line with the general policy for academic offense in the Faculty of Social Science. The typical penalty for a first academic offense in the Faculty of Social Science is zero on the assignment and the student being registered on the Academic Offense List.

Academic Policies:

Please review the Department of Sociology "Important Academic Policies" document https://sociology.uwo.ca/undergraduate/courses/Academic_Policies.pdf for additional information regarding:

- Scholastic Offences
- Plagiarism
- Copyright
- Course Selection

- Absence from Course Commitments
- Missed Tests and Exams
- Religious Accommodations
- Accessibility Options
- Mental Health
- Gender-Based and Sexual Violence statement