

CARLETON UNIVERSITY
DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY SOCI
3000 A
FALL 2024
DESCRIPTIVE STATISTICS IN SOCIAL RESEARCH

Instructor: Professor Steven Prus

Office Hours: Thursday 2:30-3:30pm

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Prerequisite(s): SOCI 2000 and third-year standing.

Precludes additional credit for SOCI 2002 (no longer offered).

Class Schedule: Thursday at 11:35am

Method of Delivery: In-person

Calendar Description: The conceptual foundations of descriptive statistics and applications of these statistics using software (SPSS or Stata) to analyze and interpret social science data. Topics include frequency distributions, graphs, measures of central tendency and dispersion, measures of association, bivariate regression, and introduction to multivariate statistics.

Course Description and Objectives: An introduction to quantitative research methods in sociology, the course focuses on descriptive statistics—a branch of statistics concerned with summarizing the distribution of a single variable and measuring the relationship between two or more variables. The two-hour lecture (11-35am-1:25pm) is designed to provide an essential understanding of these statistical methods. The lecture is followed by a one-hour computer lab (1:25-2:25pm) to apply these statistics to real-life data using SPSS statistical software. Lectures, computer labs, quiz/tests, and office hours are in-person.

Learning Outcomes:

- Demonstrate knowledge of basic statistical theory and practice;
- Calculate measures of central tendency and dispersion;
- Interpret bivariate and multivariate regression analysis;
- Learn to use SPSS for statistical analysis and to interpret output;
- Critically evaluate statistical-based findings in media and other publications.

Required Textbook (available at the Carleton University bookstore):

Healey J., C. Donoghue, and S. Prus. 2023. *Statistics, A Tool for Social Research, 5th Edition*. Toronto: Cengage.

Course Requirements & Methods of Evaluation: *

<u>Assessment</u>	<u>Weight</u>
Quiz (September 19, in-class paper-pencil format)	10%
Test 1 (October 17, in-class paper-pencil format)	20%
Test 2 (November 21, in-class paper-pencil format)	20%
Attendance	20%
Take-home Exam (due December 21 on Brightspace)	30%

* Please note:

1. the self-declaration form (available on the Registrar's Office website) must be completed to request academic accommodation for a missed quiz/test or class attendance. The tests will be re-scheduled on October 31 at 2:30-3:30pm (Test 1) and November 28 (Test 2) at 2:30-3:30pm and cannot be rescheduled again.
2. late take-home exams will be penalized at a rate of 10% of the mark per day, barring a completed self-declaration form.

In accordance with the Carleton University Undergraduate Calendar Regulations, the letter grades assigned in this course will have the following percentage equivalents:

A+ = 90-100	B+ = 77-79	C+ = 67-69	D+ = 57-59
A = 85-89	B = 73-76	C = 63-66	D = 53-56
A - = 80-84	B - = 70-72	C - = 60-62	D - = 50-52
F = Below 50	WDN = Withdrawn from the course		DEF = Deferred

In this course, you are expected to learn from your texts, your teacher and from one another. This requires striving towards understanding each other but it does not imply striving towards finding agreement. Our class will be racially, religiously, politically, culturally, generationally, and economically diverse. We will be of different gender identifications and sexual orientations and our lived experiences and reactions to the course material will reflect this diversity. Sharing our perspectives and interpretations on the course material will enhance everyone's learning experience and you are encouraged to openly express any disagreements with the authors you will read, with your fellow classmates, or with the Professor in the different participation fora that are available for this course. However, you are expected to conduct yourself in such a way

that shows the utmost respect to others who may – or may not – share your views. Derogatory comments and hateful behavior towards others (and their views) will not be tolerated.

Carleton University acknowledges the location of its campus on the traditional, unceded territories of the Algonquin nation. In doing so, Carleton acknowledges it has a responsibility to the Algonquin people and a responsibility to adhere to Algonquin cultural protocols.

Academic Regulations, Accommodations, Plagiarism, Etc.

University rules regarding registration, withdrawal, appealing marks, and most anything else you might need to know can be found on the university's website, here:

<https://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity/>

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

Academic Accommodations:

Carleton is committed to providing academic accessibility for all individuals. You may need special arrangements to meet your academic obligations during the term. The accommodation request processes, including information about the Academic Consideration Policy for Students in Medical and Other Extenuating Circumstances, are outlined on the Academic Accommodations website (students.carleton.ca/course-outline).

Academic Accommodations for Students with Disabilities:

The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at **613-520-6608** or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send your ***Letter of Accommodation*** at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (*if applicable*).

*The deadline for contacting the Paul Menton Centre regarding accommodation for October/November examinations is **October 1, 2024** and **November 15, 2024** for December examinations.

For Religious Obligations:

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website:

www.carleton.ca/equity/wpcontent/uploads/Student-Guide-to-Academic-Accommodation.pdf

For Pregnancy:

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website:

www.carleton.ca/equity/wpcontent/uploads/Student-Guide-to-Academic-Accommodation.pdf

For Survivors of Sexual Violence:

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: www.carleton.ca/sexual-violence-support

Accommodation for Student Activities:

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist.

<https://carleton.ca/senate/wpcontent/uploads/Accommodation-for-Student-Activities-1.pdf>

Plagiarism:

Plagiarism is the passing off of someone else's work as your own and is a serious academic offence. For the details of what constitutes plagiarism, the potential penalties and the procedures refer to the section on Instructional Offences in the Undergraduate Calendar. Students are expected to familiarize themselves with and follow the Carleton University Student Academic Integrity Policy (See <https://carleton.ca/registrar/academic-integrity/>). The Policy is strictly enforced and is binding on all students. Academic dishonesty in any form will not be tolerated. Students who infringe the Policy may be subject to one of several penalties.

What are the Penalties for Plagiarism?

A student found to have plagiarized an assignment may be subject to one of several penalties including but not limited to: a grade of zero, a failure or a reduced grade for the piece of academic work; reduction of final grade in the course; completion of a remediation process; resubmission of academic work; withdrawal from course(s); suspension from a program of study; a letter of reprimand.

What are the Procedures?

All allegations of plagiarism are reported to the faculty of Dean of FASS and Management. Documentation is prepared by instructors and departmental chairs. The Dean writes to the student and the University Ombudsperson about the alleged plagiarism. The Dean reviews the allegation. If it is not resolved at this level then it is referred to a tribunal appointed by the Senate.

Assistance for Students:

Mental Health: As a student you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. If you need help, please speak to someone. There are numerous resources available both on- and off-campus to support you. For more information, please consult <https://wellness.carleton.ca/>

Academic and Career Development Services: <https://carleton.ca/career/>

Writing Services: <http://www.carleton.ca/csas/writing-services/>

Peer Assisted Study Sessions (PASS): <https://carleton.ca/csas/group-support/pass/>

Important Information:

- Student or professor materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).
- Students must always retain a hard copy of all work that is submitted.
- Standing in a course is determined by the course instructor subject to the approval of the Faculty Dean. This means that grades submitted by the instructor may be subject to revision. No grades are final until they have been approved by the Dean.
- Carleton University is committed to protecting the privacy of those who study or work here (currently and formerly). To that end, Carleton's Privacy Office seeks to encourage the implementation of the privacy provisions of Ontario's *Freedom of Information and Protection of Privacy Act* (FIPPA) within the university.
- In accordance with FIPPA, please ensure all communication with staff/faculty is via your Carleton email account. To get your Carleton Email you will need to activate your [MyCarletonOne account](#) through Carleton Central. Once you have activated your MyCarletonOne account, log into the [MyCarleton Portal](#).
- Please note that you will be able to link your MyCarletonOne account to other nonMyCarletonOne accounts and receive emails from us. However, for us to respond to your emails, we need to see your full name, CU ID, and the email must be written from your valid MyCarletonOne address. Therefore, it would be easier to respond to your inquiries if you would send all email from your connect account. If you do not have or have yet to activate this account, you may wish to do so by visiting <https://students.carleton.ca/>.

FALL TERM 2024 – Important Dates and Deadlines

Date	Activity
August 28, 2024	Deadline for course outlines to be made available to students registered in full fall, early fall, and fall/winter courses.
August 30, 2024	Last day for receipt of applications from potential fall (November) graduates.
September 2, 2024	Statutory holiday. University closed.
September 3, 2024	Academic orientation (undergraduate and graduate students).
	Orientation for new Teaching Assistants.
	All new students are expected to be on campus. Class and laboratory preparations, departmental introductions for students, and other academic preparation activities will be held.
September 4, 2024	Fall term begins. Full fall, early fall, and fall/winter classes begin.
September 10, 2024	Last day for registration and course changes (including auditing) in early fall courses.
September 17, 2024	Last day for registration and course changes (including auditing) in full fall, late fall, and fall/winter courses.
	Last day to withdraw from early fall courses with a full fee adjustment.
	Graduate students who have not electronically submitted their final thesis copy to the Faculty of Graduate and Postdoctoral Affairs will not be eligible to graduate in fall 2024 and must register for the fall 2024 term.
September 2022, 2024	Deferred Exam Period: Full Summer term final examinations; Late Summer term final examinations

September 30, 2024	Last day to withdraw from full fall and fall/winter courses with a full fee adjustment.
October 1, 2024	Last day for academic withdrawal from early fall courses.
	Last day to request Formal Examination Accommodations for Oct/Nov final examinations from the Paul Menton Centre for Students with Disabilities. Note that it may not be possible to fulfil accommodation requests received after the specified deadlines.
October 11, 2024	Last day for summative tests or examinations, or formative tests or examinations totaling more than 15% of the final grade, in early fall term undergraduate courses, before the official Oct/Nov final examination period (see examination regulations in the Academic Regulations of the University section of the Undergraduate Calendar/General Regulations of the Graduate Calendar).
	December examination schedule (fall term final and fall/winter mid-terms) available online.
October 14, 2024	Statutory holiday. University closed.
October 15, 2024	Last day for receipt of applications for admission to an undergraduate degree program for the winter term from applicants whose documents originate from outside Canada or the United States.
October 18, 2024	Last day of early fall classes.
	Last day for final take-home examinations to be assigned in early fall courses, with the exception of those conforming to the examination regulations in the Academic Regulations of the University section of the Undergraduate Calendar/General Regulations of the Graduate Calendar.

	Last day that can be specified by a course instructor as a due date for term work for early fall courses.
October 21, 2024	Deadline for course outlines to be made available to students registered in late fall courses.
October 21-25, 2024	<p>Fall Break: No classes will take place. Students cannot be required to attend class or submit coursework from Sunday, October 20 to Sunday, October 27. The following exceptions may apply:</p> <ul style="list-style-type: none"> • If it is necessary to hold a test after Friday, October 18 due to exceptional circumstances, it can only be scheduled on Saturday, October 19. This timing must be announced on the course outline that is distributed at the beginning of the term. • Final exams for Early Fall undergraduate courses may be held on October 26-27 and November 2-3.
October 26-27, November 2-3, 2024	Final examinations in early fall undergraduate courses will be held.
October 28, 2024	Late fall classes begin.
November 8, 2024	Last day to withdraw from late fall term courses with a full fee adjustment.
November 11, 2024	Remembrance Day is on Monday, November 11. As much as possible, course instructors are asked to allow for a moment of silence for personal reflection at 11 a.m. in accordance with Senate policy.
November 15, 2024	Last day for academic withdrawal from full fall and late fall courses.
	Last day to request Formal Examination Accommodations for December full fall and late fall examinations and fall/winter midterm examinations from the Paul Menton Centre for Students with Disabilities. Note that it may not be possible to fulfil accommodation requests received after the specified deadlines.

	Last day for receipt of applications for admission to an undergraduate degree program for the winter term.
November 15/17, 2024	Deferred Exam Period: Early Fall term undergraduate final examinations
November 22, 2024	Last day for summative tests or examinations, or formative tests or examinations totaling more than 15% of the final grade, in full fall term or fall/winter undergraduate courses, before the official December final examination period (see examination regulations in the Academic Regulations of the University section of the Undergraduate Calendar/General Regulations of the Graduate Calendar).
November 29, 2024	Last day for graduate students to submit their supervisor-approved thesis, in examinable form to the department.
	Last day for summative tests or examinations, or formative tests or examinations totaling more than 15% of the final grade, in late fall term undergraduate courses, before the official final examination period (see examination regulations in the Academic Regulations of the University section of the Undergraduate Calendar/General Regulations of the Graduate Calendar).
November 30, 2024	Last day for receipt of applications from potential winter (February) graduates.
December 6, 2024	Fall term ends.
	Last day of full fall and late fall classes.
	Classes follow a Monday schedule.
	Last day for final take-home examinations to be assigned, with the exception of those conforming to the examination regulations in the Academic Regulations of the University section of the Undergraduate Calendar/General Regulations of the Graduate Calendar.
December 9-21, 2024	Final examinations in Full Fall and Late Fall courses and mid-term examinations in Fall/Winter courses will be held. Examinations are normally held all seven days of the week.
December 21, 2024	All final take-home examinations are due on this day

COURSE OUTLINE

Date	Topics and Required Readings
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Part One: Descriptive Statistics

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| Sept 5, 12 | Main Topics: Why Study Statistics; Role of Statistics; Descriptive and Inferential Statistics; Discrete and Continuous Variables; Level of Measurement.
<i>Readings: Ch. 1</i> |
| Sept 19, 26 | Main Topics: Percentages, Proportions, Ratios, and Rates; Frequency Distributions; Charts and Graphs.
<i>Readings: Ch. 2</i> |
| Oct 3 | Main Topics: Measure of Central Tendency and Dispersion for Nominal, Ordinal, Interval-Ratio Variables.
<i>Readings: Ch. 3</i> |
| Oct 10 | Main Topics: Normal Distributions; z-scores; Probabilities.
<i>Readings: Ch. 4</i> |

Part Three: Bivariate Relationships

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| Oct 17, 31 | Main Topics: Association between Variables and the Bivariate Table; Three Characteristics of Bivariate Associations; Measures of Association for Variables Measured at the Nominal Level; Chi Square– Based Measures of Association and Lambda.
<i>Readings: Ch. 8</i> |
| Nov 7, 14 | Main Topics: Introduction to Association between Variables Measured at the Ordinal Level; Logic of Pairs; Gamma, Kendall’s tau-b and tau-c, and Somers’ d; Spearman’s rho.
<i>Readings: Ch. 9</i> |
| Nov 21, 28 | Main Topics: Introduction to Association between Variables Measured at the Ratio Level; Scatterplot; Regression; r and r^2 .
<i>Readings: Ch. 13</i> |

Part Four: Multivariate Techniques

Dec 5 **Main Topics:** Introduction to Multivariate Analysis; Direct, Spurious, Intervening, and Interactive Relationships; Multiple Regression and Correlation; Logistic Regression.

Readings: Ch. 14