

**PSCI 2702B – Quantitative Research Methods in Political Science**

**Lecture:** Mondays 6:35 p.m. – 8:25 p.m., 302 AT

Professor Stephanie Mullen  
**Office:** Room 800 Loeb

**Email:** smullen@connect.carleton.ca  
**Office Hours:** Wed 11:30 am – 2 pm or by appt.

This introductory course examines the quantitative research methods utilized in political science and public policy analysis. The two subject areas or themes covered by this course will provide the basic knowledge needed to execute survey research in future employment or academic research. Specific themes that will be covered include data analysis, and report writing.

The goal of this course is to teach the practical application of quantitative methods. With this goal in mind, numerous practical examples from current academic literature as well as from the professor's personal statistical datasets used in her research areas of political parties, elections, and defence issues will be examined. For a more theoretical course on statistics, please enroll in any of the courses from the mathematics department.

Data Analysis

This section will be the most encompassing and the most mathematical. It is broken into three subsections: univariate analysis; bivariate analysis; and multivariate analysis. Particular statistical techniques covered will include: frequencies; standard deviation; variance; mean; mode; median; crosstabs; correlation; z-tests; t-tests; and regression. Measures of association and significance will also be examined. As well, the central limits theorem will be explored in this section of the course. Since this section of the course is the most complex, the majority of the course will be devoted to it. Students are advised to take advantage of the in class lab sessions and the professor's office hours in order to clarify any problems or concerns they are having with the material immediately.

Report Writing.

In this section, students will learn how to properly prepare a data analysis report. Major components of this type of report will be covered, and, several examples of completed reports will be examined

Final Thoughts

Students are advised that this is not the kind of course where one may be absent from class and hope to pass by reliance on memory power. It requires constant practice and hands-on experience. Accordingly, students are advised to attend all classes and labs.

**Course Material:**

Required: Doing Survey Research: A Guide to Quantitative Methods. Peter Nardi. (N)

Recommended: Statistics: A Tool for Social Research. Joseph Healey (H)

**Grade Distribution**

10 % Lab Attendance

10 % Lab Quiz #1

30 % Mid-Term

10 % Lab Quiz #2

40 % Final Exam

**Lecture Schedule**

*Week of January 9<sup>th</sup> - Theme 1: Causal Models & Introduction to SPSS*

**Required Reading:** N – Chapter 2 & 3

**No Lab**

*Week of January 16<sup>th</sup> – Causal Models con't & Hypothesis Testing*

**Required Reading:** N – Chapter 3 con't, H – Chapter 1

**Lab:**

Missing Values

Recode

*Week of January 23<sup>rd</sup> - Univariate Analysis*

**Required Reading:** N - Chapter 6, H - Chapters 3 & 4

Univariate Analysis

(Measures of Central Tendency & Measures of Dispersion)

**Lab:**

Select If

Univariate Statistics (Measures of Central Tendency & Measures of Dispersion)

*Week of January 30<sup>th</sup> - Central Limits Theorem*

**Required Reading:** N – Chapter 8, H – Chapters 5 & 15  
Z scores, T-tests, and Correlations

**Lab:**  
Correlation

*Week of February 6<sup>th</sup> – Bivariate Analysis*

**Required Reading:** N – Chapter 7  
Independent, Dependent, Control, & Confounding Variables  
Bivariate Analysis (Crosstabs)

**Lab:**  
Bivariate Crosstabs (Table and Percents)

*Week of February 13<sup>th</sup> - Bivariate Analysis*

**Required Reading:** H – Chapters 11, 13 & 14  
Bivariate Analysis (Crosstabs – Measures of Association & Significance)  
(Chi-square test of significance: Crosstab )

**Lab:**  
Bivariate Crosstabs (Significance and MOA)

**BREAK WEEK**

*Week of February 27<sup>th</sup> – Lab Quiz & In-Class Quiz*

*\* Midterm (\*\*\*)every chapter, lecture up to this point will be on midterm Quiz(\*\*\*)*

*\* Lab Quiz this week (\*\*\*)every SPSS lab up to this point will be on Lab Quiz(\*\*\*)*

*Week of March 6<sup>th</sup> - Multivariate Analysis Crosstabs*

**Required Reading: N – Chapter 9**

Multivariate Analysis (Crosstabs)

**Lab:**

Multivariate Crosstabs (Table, Percents, Significance & MOA)

*Week of March 13<sup>th</sup> - Multivariate Analysis Regression*

**Required Reading: N – Chapter 9 con't, H – Chapter 15**

Multivariate Analysis (Regression)

**Lab:**

Dummy Coding & Regression

*Week of March 20<sup>th</sup> - Theme 3: Multivariate Analysis Regression Cont'd*

**Required Reading: None**

Multivariate Analysis (Regression cont'd)

**Lab:**

*\* Lab Quiz (SPSS Lab Material from Mid-term to March 13<sup>th</sup> labs)*

*Week of March 27<sup>th</sup> - Report Writing & Conclusion*

Required Reading: N - Chapter 10

Report Writing

Bias

**No Lab**

*Week of April 3<sup>rd</sup> – Conclusion & Exam Review*

## No Lab

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### Academic Accommodations

**For Students with Disabilities:** Students with disabilities requiring academic accommodations in this course are encouraged to contact the Paul Menton Centre (PMC) for Students with Disabilities (500 University Centre) to complete the necessary forms. After registering with the PMC, make an appointment to meet with the instructor in order to discuss your needs **at least two weeks before the first in-class test or CUTV midterm exam**. This will allow for sufficient time to process your request. Please note the following deadlines for submitting completed forms to the PMC for formally scheduled exam accommodations: **November 7th, 2005** for fall and fall/winter term courses, and **March 10, 2006** for winter term courses.

**For Religious Observance:** Students requesting accommodation for religious observances should apply in writing to their instructor for alternate dates and/or means of satisfying academic requirements. Such requests should be made during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist, but no later than two weeks before the compulsory academic event. Accommodation is to be worked out directly and on an individual basis between the student and the instructor(s) involved. Instructors will make accommodations in a way that avoids academic disadvantage to the student. Instructors and students may contact an Equity Services Advisor for assistance ([www.carleton.ca/equity](http://www.carleton.ca/equity)).

**For Pregnancy:** Pregnant students requiring academic accommodations are encouraged to contact an Equity Advisor in Equity Services to complete a *letter of accommodation*. Then, make an appointment to discuss your needs with the instructor at least two weeks prior to the first academic event in which it is anticipated the accommodation will be required.

**Plagiarism:** The Undergraduate Calendar defines plagiarism as: "to use and pass off as one's own idea or product, work of another without expressly giving credit to another." The Graduate Calendar states that plagiarism has occurred when a student either: (a) directly copies another's work without acknowledgment; or (b) closely paraphrases the equivalent of a short paragraph or more without acknowledgment; or (c) borrows, without acknowledgment, any ideas in a clear and recognizable form in such a way as to present them as the student's own thought, where such ideas, if they were the student's own would contribute to the merit of his or her own work. Instructors who suspect plagiarism are required to submit the paper and supporting documentation to the Departmental Chair who will refer the case to the Dean. It is not permitted to hand in the same assignment to two or more courses. The Department's Style Guide is available at: [www.carleton.ca/polisci/undergrad/styleguide.pdf](http://www.carleton.ca/polisci/undergrad/styleguide.pdf)

**Oral Examination:** At the discretion of the instructor, students may be required to pass a brief oral examination on research papers and essays.

**Submission and Return of Term Work:** Papers must be handed directly to the instructor and will not be date-stamped in the departmental office. Late assignments may be submitted to the drop box in the corridor outside B640 Loeb. Assignments will be retrieved every business day at 4 p.m., stamped with that day's date, and then distributed to the instructor. For essays not returned in class please attach a **stamped, self-addressed envelope** if you wish to have your assignment returned by mail. Please note that assignments sent via fax or email will not be accepted. Final exams are intended solely for the purpose of evaluation and will not be returned.

**Approval of final grades:** Standing in a course is determined by the course instructor, *subject to the approval of the Faculty Dean*.

**Course Requirements:** Students must fulfill all course requirements in order to achieve a passing grade. Failure to hand in any assignment will result in a grade of F. Failure to write the final exam will result in a grade of ABS. FND (Failure – No Deferred) is assigned when a student's performance is so poor during the term that they cannot pass the course even with 100% on the final examination. In such cases, instructors may use this notation on the Final Grade Report to indicate that a student has already failed the course due to inadequate term work and should not be permitted access to a deferral of the examination. Deferred final exams are available ONLY if the student is in good standing in the course.

**Connect Email Accounts:** The Department of Political Science strongly encourages students to sign up for a campus email account. Important course and University information will be distributed via the Connect email system. See <http://connect.carleton.ca> for instructions on how to set up your account.