



Carleton University
Interdisciplinary Public Affairs Courses
IPAF 2000
Quantitative Approaches to Policy Analysis

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2024 Winter

Teacher's Assistant (T.A.):

Phone:

Email:

Office hours: --

Class time: Wednesdays 18h-21h

Tutorial time: Mondays, 16h30-18h, upon prior announcement

Course Description

This course introduces students to basic methods of quantitative analysis. The course teaches how to describe the world quantitatively; evaluate sources and quality of data; distinguish association from causation; understand tradeoffs, uncertainty, and risk; and how to use estimation and modelling to evaluate claims and test theories. Students will learn a group of related approaches to collecting, interpreting, and presenting information about the world built using relatively simple and familiar logical, numerical, and statistical skills. The emphasis will be on applications to current economic issues, particularly, inflation.

Prerequisite: none

Preclusion: Not open to students in any B.Com., B.C.S., B.Eng., B.I.B., B.I.D., B.Math., or B.Sc. program.

Course format: Lectures will be in-class.

Several online Tutorials will be held throughout the course with prior announcement, which will focus on practical skills.

Recommended Textbook:

Quantitative Literacy: Thinking Between the Lines, 3rd Edition (2022), Bruce Crauder, Benny Evans, Jerry Johnson, Alan Noell, MacMillan Learning, ISBN-10: 1-4641-2512-0; ISBN-13: 978-1-4641-2512-6.

How to purchase the textbook online: [Buy or Rent Quantitative Literacy, Digital Update 3rd Edition | Bruce Crauder | Macmillan Learning](#)

This text was selected since it is well-organized, up-to-date, and covers current and interesting issues in the quantitative analysis of public policies. Even though the textbook has no Canadian content, the lectures will present Canadian data throughout the course, much coming from Statistics Canada.

The textbook should be considered a fundamental course resource and is recommended for student success. Having said this, examinations are lecture based. Students are responsible for knowing and mastering all material presented in class and the tutorials, regardless of if it is in the textbook or not.

You can also use the 3rd edition (2018) of the textbook.

Evaluation:

There will be two assignments worth 20% of the course grade, one in-class midterm examination worth 40% and a final examination worth 40%.

Course Grade

Assignments	20% (Due dates: 29.1. & 19.3.)
Midterm Exam	40% (Date: 12.2.)
Final Exam	<u>40%</u>
Total	100%

Students who can document a compelling reason for missing the mid-term examination will be excused and their final grade will be based on their performance in the rest of the course—i.e., the weight of each of the remaining evaluation instruments will rise by a factor of 5/3 (e.g., the final examination weight will become $5/3 \times 40 = 66.67\%$). Students must inform the instructor of such an absence in advance, if possible.

COURSE	Date	CONTENT AND STRUCTURE (Schedule is approximate)	Chapter
Class #1,2	8.1, 15.1.	CRITICAL THINKING AND MEASUREMENT SYSTEMS	1
Class #3	22.1.	MEASUREMENTS OF GROWTH, FUNCTIONS AND GRAPHS	2, 3
Class #4-5	29.1., 5.2.	INTRODUCTION TO PROBABILITY	5
Class #6	12.2	MIDTERM EXAMINATION	
Class #7-9	26.2., 5.3., 12.3.	STATISTICS : DATA SUMMARIES, NORMAL DISTRIBUTION	6
Class #10-12	19.3., 26.3., 2.4.	STATISTICAL INFERENCE: APPLICATION TO ECONOMIC AND DEMOGRAPHIC DATA, SELECTED ECONOMIC FRAMEWORKS, PERSONAL FINANCE	

Final Exam: The University will schedule the final exam.

Administrative Details

Class members take their own responsibility for non-attendance of classes. Students are welcome to make-up for material missed in class using the course text.

Course Assignments

There will be two course assignments handed out in class. Assignments may be submitted in class on the due date, or electronically via email on the due date. After this time, only hard copy submissions will be accepted.

Late Submission: Assignments submitted after the due date will be penalized 10 percentage points per day.

Plagiarism: Use and quotation of the course textbook is allowed for the course assignments, with no need to cite the course textbook as a reference source. However, students are not allowed to directly copy the work of others for the term assignment, whether from books and articles, Internet sources, other students, or other sources not identified here. Please be aware that plagiarism is a serious offence at Carleton and should be recognized and avoided. For information on how to do so, please see “Pammett on Plagiarism and Paraphrasing” at:

<http://www.carleton.ca/economics/courses/writing-preliminaries/>.

Examinations

Scientific non programmable calculators are allowed. No Reference Material: Course tests are ‘closed-book’; reference material is not permitted. Students may not communicate with each other nor share material during tests. For clarification, please see the statement on tests and examinations in the Academic Regulations of the University, found in the Undergraduate Calendar for the current academic year (<http://calendar.carleton.ca/undergrad>).

Satisfactory performance criteria

Students must fulfil all of the preceding course requirements in order to achieve a passing grade (D- or higher). Failure to write the mid-term examination without a documented compelling reason will result in a grade of FND (“Failure with No Deferred final examination allowed”). Failure to write the final examination when the student has achieved satisfactory performance during the term will result in a grade of ABS (“ABSent from a required final examination”). See Academic Regulation 2.3 for the official meanings of these grades, and note that it stipulates that no course grades are final until approved by the Faculty Dean. Note also that course grades may be scaled upwards or downwards in a rank-preserving manner to better fit the relevant departmental distributional norm. Application to write a deferred final examination must be made at the Registrar’s Office.

Possible accommodation to students: For a complete list of accommodations, see the following link: <https://students.carleton.ca/course-outline>