

Course Outline

COURSE:	CRCJ 3001 B: Quantitative Methods in Criminology
TERM:	Winter 2026
PREREQUISITES:	CRCJ 1000 and third-year standing in the B.A program in Criminology and Criminal Justice.
CLASS:	Day & Time: Wednesdays, 8:35 am – 11:25 am
	Modality: ONLINE, MIX OF SYNCHRONOUS/ASYNCHRONOUS LECTURES AND TERM WORK
INSTRUCTOR:	Tanvir Quadir
CONTACT:	Office: All office hours will be ONLINE Office Hrs: Wednesdays, 5:00 – 6:00 pm (Zoom) Email: TanvirQuadir@cunet.carleton.ca

Link to Brightspace page: [Homepage - CRCJ3001B Quantitative Methods in Crimin \(LEC\) Winter 2026](#)

Before emailing a question, please *fully* read this syllabus and explore the associated resources. The answers to many questions can be found in this document and students may be referred back to the syllabus if the answer is already available. Please allow at least **two (2) business days** for responses to inquiries before pursuing another route of communication.

TA:

Name	Email	Office Hours	Responsibilities
Nujhat Haroon	nujhatharoon@cmail.carleton.ca	N/A	Grading Assignment, Article Critique/ Proctoring Exam
Tayla Snache	TaylaSnache@cmail.carleton.ca	N/A	Grading Assignment/Proctoring Exam
Batoul Rakem	BatoulRakem@cmail.carleton.ca	N/A	Grading Assignment, Engaging Students Proctoring Exam

ACKNOWLEDGEMENT & AFFIRMATION

ANISHNABE

Ni manàdjiyànànig Màmìwininì Anishinàbeg, ogog kà nàgadawàbandadjig iyo akì eko weshkad. Ako nongom egawikàd kì mìgiwewàdj.

Ni manàdjiyànànig kakina Anishinàbeg ondaje kaye ogog kakina eniyagizidjig enigokamigàg Kanadàng ejiondàpinangig endàwàdjìn Odàwàng.

Ninisdawinawànànig kenawendamòdjig kije kikenindamàwin; weshkinìgidjig kaye kejeyàdizidjig.

Nigijeweninmànànig ogog kà nìgànì sòngideyedjig; weshkad, nongom; kaye àyànikàdj.

ENGLISH

We pay respect to the Algonquin people, who are the traditional guardians of this land. We acknowledge their longstanding relationship with this territory, which remains unceded.

We pay respect to all Indigenous people in this region, from all nations across Canada, who call Ottawa home.

We acknowledge the traditional knowledge keepers, both young and old.

And we honour their courageous leaders: past, present, future.

COURSE DESCRIPTION

Methods used for conducting quantitative research. Topics include measuring and manipulating variables, reliability, validity, sampling, experimental, quasi-experimental designs, and ethics.

LEARNING OUTCOMES

By the end of this course, students should be able to:

- Understand and apply core concepts of quantitative analysis in criminology, including variables and level of measurement, graphs and charts for qualitative and quantitative variables, measures of centre and variability, sampling, reliability and validity, statistical significance, experimental designs, and correlation.
- Build capacity to assess the methodological choices and perform data analyses using statistical package SPSS.

TEXTBOOKS

- *Essentials of Statistics for the Behavioral Sciences* by Gravetter, F. J., & Wallnau, L. B., 9th or 10th edition, Thompson Wadsworth. (ES) **(REQUIRED)**
 - With MindTap Instant Access (e-book): \$120.00 (Carleton Bookstore)
 - Hard Copy: \$231.50 (Carleton Bookstore)
- *Research Methods for the Behavioral Sciences*, Gravetter, F. J., & Forzano, L.A. B. (2018). (6th ed.). Wadsworth-Cengage Learning. (RM) **(OPTIONAL)**
 - Hard Copy: \$198.50 (Carleton Bookstore)

EVALUATION

Assessment Type	Expected Date	Weight
Midterm Examination (One) (Virtual at Brightspace)	Midterm: Wednesday, February 25, 2026 (Week 1- 4) from 8:35 – 10:05 a.m.	25%
Assignments (Two) (Virtual at Brightspace)	Assignment 1: Due on Thursday, February 12, 2026 (Week 1 – 4) Assignment 2: Due on Thursday, March 26, 2026 (Week 5 – 9)	15%
Quizzes (Three) (Virtual at Brightspace)	Quiz 1: Due on Tuesday, February 3, 2026 (Week 1 - 4) Quiz 2: Due on Tuesday, March 3, 2026 (Week 5 – 6) Quiz 3: Due on Tuesday, March 31, 2026 (Week 7 – 9)	15%
Final Examination (One) (Virtual at Brightspace)	Between April 11 - 23, 2026 (Week 5 – 11) (TBA by Scheduling and Exam Services (SES))	35%
Article Critique (Virtual at Brightspace)	Due on Thursday, March 19, 2026	5%
Attendance	Synchronous lectures (Wooclap) + pre-recorded lectures (MUST be watched entirely by Sunday of the lecture week)	5%

Each student's grade in the course will be calculated as a weighted average of scores for one mid-term examination (25%), two take-home assignments (15%), three quizzes (15%), a final examination (35%), article critique (5%) and attendance (5%). Important guidelines pertaining to the evaluation instruments are the following:

MIDTERM EXAMINATION (25%): Midterm examination will be held VIRTUALLY at BRIGHTSPACE on Wednesday, February 25, 2026, 8:35 – 10:05 am (during class time). The midterm examination is open-book.

ASSIGNMENT (15%) – DUE ON ASSIGNED DATES: There will be two assignments, each counting equally toward the term mark. Only one pdf file (either typed or hand-written answers) needs to be uploaded at the Brightspace. No email submissions will be accepted. Students must work independently on assignments and write up his/her own assignment but may seek guidance/direction from the professor.

QUIZZES (15%) – DUE ON ASSIGNED DATES: There will be three VIRTUAL quizzes (based on multiple-choice questions) to be completed at Brightspace. The quizzes will remain available from 8 am to 11:59 pm at Brightspace on the due date. Practice quizzes will also be made available at Brightspace before the due dates which will simulate the quiz environment and quiz type questions.

FINAL EXAMINATION (35%): The 3-hour final examination will take place VIRTUALLY at BRIGHTSPACE during the official final examination period of April 11 to 23, 2026 and is scheduled by SES. Please do not make travel plans prior to April 23, 2026. **Please note that the maximum weight of the final exam MUST NOT exceed 60% of the final grade in case you miss any evaluation component (midterm or assignment or quiz) and weights are moved to the final exam weight based on documented medical reason.**

ARTICLE CRITIQUE (5%): You will be given a journal article in the field of Criminology and Criminal Justice. Your task will be to summarize/critique the article: research question, methodology, limitation, and the results presented by the author(s). The article critique must be submitted to Brightspace in a single PDF file in no more than 2 pages maximum. The journal article will be released approximately two weeks prior to the deadline.

ATTENDANCE (5%): For synchronous lectures, Wooclap will be used to take attendance. For asynchronous lectures, pre-recorded lectures MUST be watched entirely by Sunday of the lecture week to receive attendance marks. Brightspace activity log will be used to determine the attendance mark.

ADDITIONAL COURSE POLICIES:

1. Concerns about grading on any assignment or exam must be brought to my attention within seven business days of the completion of grading.
2. Students who need to miss an assignment submission or an exam for a valid reason must complete and submit the Academic Consideration for Coursework Form ([Academic Consideration for Coursework Form - Registrar's Office \(carleton.ca\)](https://carleton.ca/academic-consideration-for-coursework-form)) no later than 24 hours after the submission deadline. In the case of an assignment or the midterm exam, the form must be submitted to the instructor. In the case of the final exam, a deferral request must be submitted to the Registrar's Office ([Defer an Exam - Registrar's Office \(carleton.ca\)](https://carleton.ca/defer-an-exam)). For a missed assignment or midterm exam or quiz, the weight of the assignment/midterm exam/quiz will be added to the weight of the final exam. Deferred final exam scheduling is at the discretion of the University. NOTE: You cannot defer a deferred exam.
3. **Late Assignment Policy:** All assignments are to be submitted by their due date and time. All late submissions will be immediately docked 5%, with an additional 5% for each subsequent day late to a maximum of 3 days, *including weekends*. **After 3 days all outstanding assignments will be given a zero (0%) grade.** The Faculty reserves the right to accept or refuse the reason; **reasons such as travel, jobs, or any misreading of the examination timetable are not acceptable.**
4. **Attendance Policy: Students MUST attend the lectures.** It is strongly believed that there is strong correlation between students' engagement and success in the course.
5. You must use your Carleton email account for all email communications. I am unable to respond to non-Carleton emails due to FIPPA (Freedom of Information and Protection of Privacy Act).

6. All assignments in the course will be submitted online. A document entitled Submission Instructions will be posted on the course page in Brightspace. Any submissions not following the Submission Instructions will not be accepted for credit.

7. **Important Note:** You must pass at least one of the exams (midterm or final exam) and achieve an overall passing average to pass this course. Failing both exams will result in an F grade regardless of the term work.

8. 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. Final standing in courses will be shown by alphabetical grades. The system of grades used, with corresponding grade points is:

Percentage	Letter grade	12-point scale	Percentage	Letter grade	12-point scale
90-100	A+	12	67-69	C+	6
85-89	A	11	63-66	C	5
80-84	A-	10	60-62	C-	4
77-79	B+	9	57-59	D+	3
73-76	B	8	53-56	D	2
70-72	B-	7	50-52	D-	1

COURSE CALENDAR (MAY BE ADJUSTED AS COURSE UNFOLDS)

Week	Type	Date	Topics	Chapters
1	Lecture	Jan. 7	<i>Research Ideas and Hypotheses, Defining and Measuring Variables/Frequency Distributions</i>	Chapter 2 (RM), Chapter 1 and 2 (ES)
2	Lecture	Jan. 14	<i>Central Tendency, Variability, Detection of Outliers</i>	Chapter 3 and 4(ES)
3	Lecture	Jan. 21	<i>Ethics in Research, Selecting Research Participants (Sampling), Research Strategies and Validity</i>	Chapter 4, 5, 6 (RM)
4	Lecture	Jan. 28	<i>Probability</i>	Chapter 6 (ES)
5	Lecture	Feb. 4	<i>Introduction to Hypothesis Testing</i> <i>Quiz 1 Due Feb. 3</i>	Chapter 8 (ES)
6	Lecture	Feb. 11	<i>Introduction to the t-statistic, Review for Midterm Exam</i> <i>Assignment 1 Due Feb. 12</i>	Chapter 9 (ES)
		Feb. 16 - 20	Winter Break (No Class)	
7	Lecture	Feb. 25	<i>Midterm Exam (Week 1 – 4), The t Test for Two Independent Samples</i>	Chapter 10 (ES)
8	Lecture	Mar. 4	<i>The t Test for Dependent Samples</i> <i>Quiz 2 Due Mar. 3</i>	Chapter 11 (ES)
9	Lecture	Mar. 11	<i>Experimental Design: Introduction to Analysis of Variance (Between Subject Design)</i>	Chapter 12 (ES)
10	Lecture	Mar. 18	<i>Correlation, Simple Linear Regression</i> <i>Article Critique Due Mar. 19</i>	Chapter 14 (ES)
11	Lecture	Mar. 25	<i>Multiple Linear Regression</i> <i>Assignment 2 Due Mar. 26</i>	
12	Lecture	Apr. 1	<i>Review for Final Exam (Week 5 – 11)</i> <i>Quiz 3 Due Mar. 31</i>	

PLAGIARISM

You may consult tools such as ChatGPT, GitHub Copilot, or Gemini only to review concepts while studying. Artificial Intelligence (AI) tools (e.g., Large Language Models (LLM)s must never be used to compose, paraphrase, translate, or otherwise write any portion of an assignment. Submitting AI-generated text as your own is strictly prohibited and will be treated as academic fraud. Remember that you remain entirely accountable for the originality, accuracy, and integrity of all work submitted.

The University Academic Integrity Policy defines plagiarism as “*presenting, whether intentionally or not, the ideas, expression of ideas or work of others as one’s own.*” This includes reproducing or paraphrasing portions of someone else’s published or unpublished material, regardless of the source, and presenting these as one’s own without proper citation or reference to the original source. Examples of sources from which the ideas, expressions of ideas or works of others may be drawn from include but are not limited to: books, articles, papers, literary compositions and phrases, performance compositions, chemical compounds, artworks, laboratory reports, research results, calculations and the results of calculations, diagrams, constructions, computer reports, computer code/software, material on the internet and/or conversations. Examples of plagiarism include, but are not limited to:

- any submission prepared in whole or in part, by someone else, including the unauthorized use of generative AI tools (e.g., ChatGPT);
- using ideas or direct, verbatim quotations, paraphrased material, algorithms, formulae, scientific or mathematical concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another’s data or research findings without appropriate acknowledgement;
- submitting a computer program developed in whole or in part by someone else, with or without modifications, as one’s own; and
- failing to acknowledge sources through the use of proper citations when using another’s work and/or failing to use quotations marks.

The Associate Dean of the Faculty follows a rigorous [process for academic integrity allegations](#), including reviewing documents and interviewing the student, when an instructor suspects a violation has been committed. Penalties for violations may include a final grade of “F” for the course.

INTELLECTUAL PROPERTY

Classroom teaching and learning activities, including lectures, discussions, presentations, etc., by both instructors and students, are copy protected and remain the intellectual property of their respective author(s). All course materials, including PowerPoint presentations, outlines, and other materials, are also protected by copyright and remain the intellectual property of their respective author(s).

Students registered in the course may take notes and make copies of course materials for their own educational use only. Students are not permitted to reproduce or distribute lecture notes and course materials publicly for commercial or non-commercial purposes without express written consent from the copyright holder(s).

STATEMENT ON STUDENT MENTAL HEALTH

As a university 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. Here is a link to information about all the resources, both on campus and off, that you may find helpful: <https://carleton.ca/wellness/>

Emergency Resources ([on and off campus](#))

- Suicide Crisis Helpline: call or text 9-8-8, 24 hours a day, 7 days a week.
- For immediate danger or urgent medical support: call 9-1-1

Carleton Resources

- Mental Health and Wellbeing: <https://carleton.ca/wellness/>
- Health & Counselling Services: <https://carleton.ca/health/>
- Paul Menton Centre: <https://carleton.ca/pmc/>
- Academic Advising Centre (AAC): <https://carleton.ca/academicadvising/>
- Centre for Student Academic Support (CSAS): <https://carleton.ca/csas/>
- Equity & Inclusivity Communities: <https://carleton.ca/equity/>

Off Campus Resources

- Distress Centre of Ottawa and Region: call 613-238-3311, text 343-306-5550, or connect online at <https://www.dcottawa.on.ca/>
- Mental Health Crisis Service: call 613-722-6914 or toll-free 1-866-996-0991, or connect online at <http://www.crisisline.ca/>
- Empower Me Counselling Service: call 1-844-741-6389 or connect online at <https://students.carleton.ca/services/empower-me-counselling-services/>
- Good2Talk: call 1-866-925-5454 or connect online at <https://good2talk.ca/>
- The Walk-In Counselling Clinic: for online or on-site service <https://walkincounselling.com>

ACADEMIC ACCOMMODATION

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:

<https://students.carleton.ca/course-outline/>