

MAST 333
Applied Statistics
Winter 2024

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Class Schedule: Wednesdays & Fridays, 11:45-13:00.

Office Hours: Thursdays 13:00-14:30.

Text: *Introduction to Probability and Statistics*, 4th Canadian Edition, by William Mendenhall, S. Ejaz Ahmed, Robert J. Beaver and Barbara M. Beaver.

Calculators: Only calculators approved by the Department (with a sticker attached as proof of approval) are permitted in the class test(s) and final examination. A list of approved calculators can be found at <https://www.concordia.ca/artsci/math-stats/services.html#calculators>.

Final Grade: (a) Assignments (20%)
(b) Midterm Test (30%)
(c) Final Exam (50%)

If the grading scheme for this course includes graded assignments, a reasonable and representative subset of each assignment may be graded. Students will not be told in advance which subset of the assigned problems will be marked and should therefore attempt all assigned problems.

Notes:

- (1) Assignments will be collected in class. Late assignments will not be accepted.
- (2) There will be no make up test. The final examination will cover everything taught in the course.
- (3) In order to obtain a good grade, you have to demonstrate a THOROUGH understanding of the subject and should be capable of PROVIDING basic results.
- (4) Please note that there are no supplemental privileges in this course.

| Week | Chapters | Sections |
|------|--|------------------------------|
| 1 | Describing Data with Graphs | 1.1-1.5 |
| 2 | Describing Data with Numerical Measures | 2.1-2.7 |
| 3 | Introduction to Minitab & Describing Bivariate data | 3.1-3.4 |
| 4 | The Normal (Gaussian) Distribution | 6.1-6.4 |
| 5 | Sampling Distribution | 7.1-7.6 |
| 6 | Large Sample Estimation | 8.1-8.9 |
| 7 | Large Sample Tests of Hypothesis | 9.1-9.7 MIDTERM TEST |
| 8 | Large Sample Tests of Hypothesis (cont.) Inference from Small Sample | 10.1-10.8 |
| 9 | Inference from Small Sample (cont.) The Analysis of Variance | 11.1-11.9 |
| 10 | The Analysis of Variance (cont.) | 12.1-12.7 |
| 11 | Correlation & Multiple Regression Analysis Multiple Regression Analysis | 13.1-13.4 13.5-13.7, 13.9 |
| 12 | Categorical Data Analysis & Review | 14.1-14.7 |

Academic Integrity and the Academic Code of Conduct

This course is governed by Concordia University's policies on Academic Integrity and the Academic Code of Conduct as set forth in the Undergraduate Calendar and the Graduate Calendar. Students are expected to familiarize themselves with these policies and conduct themselves accordingly. "Concordia University has several resources available to students to better understand and uphold academic integrity. Concordia's website on academic integrity can be found at the following address, which also includes links to each Faculty and the School of Graduate Studies: <https://www.concordia.ca/conduct/academic-integrity.html>" [*Undergraduate Calendar, Sec 17.10.2*]

Behaviour

All individuals participating in courses are expected to be professional and constructive throughout the course, including in their communications.

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Extraordinary circumstances

In the event of extraordinary circumstances and pursuant to the [Academic Regulations](#) the University may modify the delivery, content, structure, forum, location and/or evaluation scheme. In the event of such extraordinary circumstances, students will be informed of the change.