

STAT 280
Introduction to Statistical Programming
Fall 2023

Instructor*: _____

Email: _____

Office Hours: _____

*Students should get the above information from their instructor during class time. The instructor is the person to contact should there be any questions about the course.

Textbook: *A first course in statistical programming with R*, Third Edition. Braun, W. J., & Murdoch, D. J. (2016). Cambridge University Press.

The print version of the textbook will be available at:

<https://www.bkstr.com/concordiastore/home>

Note: Students should order textbooks as early as possible, especially for print versions in case books are backordered or there are any shipping delays.

Description: Statistical programming is an indispensable instrument in the toolkit of modern data scientist. This course is an introduction to statistical programming and computational statistics using the R programming language (<https://www.r-project.org/>). Basic programming concepts such as data structures, flow control statements, and algorithms are introduced. The course also includes data manipulation methods and visualization tools for programming statistical graphics. The use of the R language for numerical linear algebra and statistical simulation is also illustrated.

Final Grade: Students will be evaluated based on homework assignments, a mid-term, and a final evaluation, according to the following grading scheme:
20% Assignments + 30% Mid-term evaluation + 50% Final evaluation.

Further information will be communicated via Moodle.

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.

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.

Concordia students are subject to the [Code of Rights and Responsibilities](#) which applies both when students are physically and virtually engaged in any University activity, including classes, seminars, meetings, etc. Students engaged in University activities must respect this Code when engaging with any members of the Concordia community, including faculty, staff, and students, whether such interactions are verbal or in writing, face to face or online/virtual. Failing to comply with the Code may result in charges and sanctions, as outlined in the Code.

Intellectual Property

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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.