STAT 5503F: Linear Models, Fall 2019

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Hours, Locations and Website:
Lectures: Tue. and Thu. 11:35 AM–12:55 AM at 376 University Center (UC)
Office hours: Thursday 14:00 – 15:00 at 5215 HP or by appointment
Course website: http://people.math.carleton.ca/~scai/teaching/stat5503f-f19/

Important Dates:
First day of classes: Sep. 4, 2019
Last day of classes: Dec. 6, 2019 (follows a Monday schedule)
Oct. 21–25: Fall break; no classes
Important dates and deadlines, 2019–2020:
https://carleton.ca/registrar/registration/dates-and-deadlines/
Dates of Religious Observances (Holy days), 2018–2020:
http://carleton.ca/equity/accommodation/religious-observances/
Note: It is your responsibility to inform me which holy days apply to you and you have to do so within the first two weeks of the class. The due dates for assignments and exams will not be changed for holy days after this two-weeks period.

Textbook:

Reference Books:

Prerequisites:
Required: Mathematical Statistics at the level of STAT 5600.

Assessment Rules (provisional):
• Three or four assignments: 30%
• A 90-minute in-class midterm exam (on Oct. 17): 20%
• A three-hour exam scheduled by the University: 50%
  Note: To pass the course, one has to obtain at least 70/100 in the final exam.

Topics (provisional):
1. Introduction to linear models (Chapter 1)
2. Least squares estimator and its properties (Chapter 2 & 3)
3. More on estimation: Gauss–Markov theorem and generalized least squares (Chapter 4)
4. Hypothesis testing under linear models (Chapter 6 & 7)
5. Variance components and random-effects models (Chapter 8)
6. Introduction to generalized linear models

Important Notes:
• Asking content-related questions by emails is not encouraged. You should always come to my office hour for such questions to avoid unnecessary confusions.
• When asking schedule-related or clarification questions by emails, you should expect a waiting time of 24 to 48 hours for me to process.
• If you want to make an appointment other than the regular office hours, you should expect a meeting at least one week after the date you make the appointment.
• If you miss the midterm exam you will receive a zero for that exam unless you provide me with a properly documented reason (e.g., medical), in which case the weight of that exam will be shifted to the final exam. No makeup exams will be given in any case.
• Late submissions of assignments will not be accepted and a zero mark will be given in that case unless you can provide a documented reason.
• To pass the course, you need to obtain at least 70/100 in the final exam.
• If you want to see your final exam paper, you have to make an appointment within two weeks of the final exam.
• Your grade will not be changed in any case according to your special needs (such as scholarship, etc).
• Students from the University of Ottawa should gain access to cuLearn at Carleton University. To do this, follow the instructions given on https://carleton.ca/its/all-services/accounts-and-passwords/#sect4

Academic Integrity Policy:
https://carleton.ca/registrar/academic-integrity/

Academic Accommodation:
You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:
Pregnancy obligation: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details see the Student Guide.

Religious obligation: write to me with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details see the Student Guide.

Academic Accommodations for Students with Disabilities: The Paul Menton Centre for Students with Disabilities (PMC) provides services to students with Learning Disabilities (LD), psychiatric/mental health disabilities, Attention Deficit Hyperactivity Disorder (ADHD), Autism Spectrum Disorders (ASD), chronic medical conditions, and impairments in mobility, hearing, and vision. If you have a disability requiring academic accommodations in this course, please contact PMC at 613-520-6608 or pmc@carleton.ca for a formal evaluation. If you are already registered with the PMC, contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term, and no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with me to ensure accommodation arrangements are made. Please consult the PMC website for the deadline to request accommodations for the formally-scheduled exam (if applicable).