

**Carleton University**  
**School of Mathematics and Statistics**

STAT 2559A – *Basics of Statistical Modeling* – Winter 2021

**Instructor** Dr. Patrick Farrell, pfarrell@math.carleton.ca, 5412 Herzberg Laboratories

**Office Hours** Virtual office hours will be posted on cuLearn on the main course page.

**Textbook** *Mathematical Statistics with Applications, 7<sup>th</sup> Edition*, Dennis D. Wackerly, William Mendenhall III, and Richard L. Scheaffer, Brooks/Cole CENGAGE Learning 2008

<b>Grading Scheme</b>	Assignments	20%	A non-programmable calculator may be used for the midterm and final exams. <b>Both the midterm and final examination will be closed book.</b>
	Midterm	30%	
	Final Exam	50%	

Students are required to obtain a minimum score of 40% on each of the above components. Students who fail to do so will automatically be assigned a grade of F in the course. Exceptions to this rule may be made at the discretion of the instructor.

**Assignments** There will be five (5) assignments counting equally toward the term mark. The deadline for assignment submission will be given on the assignment. Assignments will be **submitted as a single pdf file uploaded to cuLearn.**

**Labs** There will be 11 labs during the term. **Labs will start on January 18**, and run according to the schedule on the last page of the course outline. Students will use the R statistical software package to answer questions on their own paper, and submit their work together with the hand-written assignment (one of the five above) to which the material relates. Further details as to how and when the work for each lab is to be submitted will be provided in the labs.

**Midterm** There will be a **2-hour midterm** held from **12:00pm – 2:00pm** on **Saturday, March 13**. The midterm exam will cover the material listed in weeks 1 through 6 of the course outline.

**Final Exam** There will be a **3-hour cumulative final exam** scheduled by the university. The final exam period runs from **April 16 – 27** inclusive.

### **E-proctoring**

**Please note that the midterm and final examination in this course will use a remote proctoring service provided by Scheduling and Examination Services.** You can find more information at <https://carleton.ca/ses/e-proctoring/>. The minimum computing requirements for this service are as follows:

Hardware: Desktop or Laptop

OS: Windows 10, MacOS 10.14, Linux Ubuntu 18.04

Internet Browser: Google Chrome, Mozilla Firefox\*, Apple Safari, or Microsoft Edge

Internet Connection (High-Speed Internet Connection Recommended)

Webcam (HD resolution recommended)

Note: Tablets, Chromebooks and Smartphones are not supported at this time. Windows-based tablets are not supported at this time.

**Deferred Final Examination:** The deferred final examination may be given in a different format than that of the regularly-scheduled final examination above, including the possibility of an oral examination.

**Withdrawal** The last day for academic withdrawal is **April 14**.

**Academic Integrity:** Students are required to be familiar with Section 10 of the Academic Regulations of Carleton University at <http://calendar.carleton.ca/undergrad/regulations/academicregulationsoftheuniversity>. Students who violate the standards of academic integrity relating to any coursework will be required to meet with the Associate Dean of Science and/or the Associate Dean of Business for disciplinary action. Please familiarize yourself with the policy on academic integrity available at <https://carleton.ca/senate/wp-content/uploads/Academic-Integrity-Policy1.pdf>

### **Requests for 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**

Please contact 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, visit the Equity Services website: [carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)

#### **Religious obligation**

Please contact 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, visit the Equity Services website: [carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf](http://carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf)

#### **Academic Accommodations for Students with Disabilities**

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or [pmc@carleton.ca](mailto:pmc@carleton.ca) for a formal evaluation or contact your PMC coordinator to send me your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, contact me as soon as possible to ensure accommodation arrangements are made ([carleton.ca/pmc](http://carleton.ca/pmc)). The last day to submit Formal Examination Accommodation Forms to the PMC for December examinations is November 13.

#### **Survivors of Sexual Violence**

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and its survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: [carleton.ca/sexual-violence-support](http://carleton.ca/sexual-violence-support)

#### **Accommodation for Student Activities**

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor 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.

<https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf>

## TENTATIVE SCHEDULE

WEEK	DATES	TEXT SECTIONS COVERED	LABS / ASSIGNMENTS / MIDTERM
1	Jan 11 – Jan 15	1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 7.2, 7.3, 7.4	No Lab
2	Jan 18 – Jan 22	8.1, 8.2, 9.1, 9.2, 9.3, 9.6, 9.7, 9.8	Lab 1 on Jan 18
3	Jan 25 – Jan 29	8.5, 8.6, 8.7	Lab 2 on Jan 25, <b>Assign 1 Due Jan 28 (on Weeks 1, 2)</b>
4	Feb 1 – Feb 5	8.9, 7.2 (Theorem 3), 8.8	Lab 3 on Feb 1
5	Feb 8 – Feb 12	10.1, 10.2, 10.6	Lab 4 on Feb 8, <b>Assign 2 Due Feb 11 (on Weeks 3, 4)</b>
WINTER BREAK: Feb 15 – Feb 19			
6	Feb 22 – Feb 26	10.3, 10.4, 10.5	Lab 5 on Feb 22
7	Mar 1 – Mar 5	10.8, 10.9	Lab 6 on Mar 1, <b>Assign 3 Due Mar 4 (on Weeks 5, 6)</b>
8	Mar 8 – Mar 12	15.1, 15.2, 15.3, 15.4, 15.5, 15.6	Lab 7 on Mar 8, <b>Midterm Sat Mar 13 12 – 2 pm (Weeks 1-6)</b>
9	Mar 15 – Mar 19	14.1, 14.2, 14.3, 14.4, 14.5	Lab 8 on Mar 15
10	Mar 22 – Mar 26	12.4, 13.1, 13.2, 13.3, 13.4, 13.9	Lab 9 on Mar 22, <b>Assign 4 Due Mar 25 (on Weeks 7, 8, 9)</b>
11	Mar 29 – Apr 2	11.1, 11.2, 11.3, 11.4, 11.6, 11.7	Lab 10 on Mar 29
12	Apr 5 – Apr 9	-----	Lab 11 on Apr 5, <b>Assign 5 Due Apr 8 (on Weeks 10, 11)</b>