



COURSE OUTLINE

1. **Course:** STAT 217, Introduction to Statistics II - Fall 2020

Lecture 01: TR 11:00 - 12:15 - Online

Instructor	Email	Phone	Office	Hours
Associate Professor Ayse Sezer	adsezer@ucalgary.ca	403 284-2918	MS 532	Tuesday 11:00am-12:00pm Thursday 11:00am-12:00pm

Online Delivery Details:

This course does not follow a scheduled meeting pattern.

Video lessons are posted on D2L. Top-Hat questions accompany lessons.

Written tutorials and Minitab video demonstrations for Labs are provided.

Assignments will be delivered via Webwork.

Midterm and Final exam will be delivered via D2L.

Midterm is a timed exam designed to be completed during the duration of the class time, i.e. 75 minutes. Students have the option to start the test at a time that best suits their situation within a 24-hour time period.

Lab exam is a timed exam designed to be completed during the duration of the labs, i.e. 50 minutes. Students have the option to start the test at a time that best suits their situation within a 24-hour time period.

Final exam is a timed exam designed to be completed in 2 hours. Students have the option to start the test at a time that best suits their situation within a 24-hour time period.

All exams are set up in D2L to include an additional time extension of 50% of the test/assessment duration to allow for any technology issues that may arise

Course Site:

D2L: STAT 217 L01-(Fall 2020)-Introduction to Statistics II

Note: Students must use their U of C account for all course correspondence.

2. **Requisites:**

See section [3.5.C](#) in the Faculty of Science section of the online Calendar.

Prerequisite(s):

Statistics 213.

Antirequisite(s):

Credit for Statistics 217 and either Statistics 205 or 327 will not be allowed. Not available to students who have previous credit for one of Statistics 321 or Engineering 319 or are concurrently enrolled in Statistics 321 or Engineering 319.

3. **Grading:**

The University policy on grading and related matters is described in [F.1](#) and [F.2](#) of the online University Calendar.

In determining the overall grade in the course the following weights will be used:

Component(s)	Weighting %	Date
Assignments (6)	20	
Midterm	25	October 29,2020
Top-Hat	2	
Lab exam	18	Nov 26, 2020
Final exam	35	TBA

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a grade. The student's grade for each component listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

The conversion between a percentage grade and letter grade is as follows.

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Minimum % Required	93 %	88 %	83 %	78%	73%	68 %	63 %	58%	53%	48 %	43 %

This course has a registrar scheduled final exam.

4. **Missed Components Of Term Work:**

The university has suspended the requirement for students to provide evidence for absences. Please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations.

In the event that a student legitimately fails to submit any online assessment on time (e.g. due to illness etc...), please contact the course coordinator, or the course instructor if this course does not have a coordinator to arrange for a re-adjustment of a submission date. Absences not reported within 48 hours will not be accommodated. If an excused absence is approved, then the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course.

5. **Scheduled Out-of-Class Activities:**

There are no scheduled out of class activities for this course.

6. **Course Materials:**

Recommended Textbook(s):

James McClave and Terry T Sincich , *"Statistics", 13th Edition, with Custom Chapter MyStatLab & Minitab RVP.*: Pearson.

Minitab statistical software will be used in instruction. Students can access Minitab via vdesktop.ucalgary.ca. Detailed instruction on how to access Minitab via virtual desktop will be provided. Students can also rent Minitab at On the Hub for 29.99 CAD, however, we are currently in the process of negotiating with Minitab to obtain free home license for students, so students are encouraged to use virtual desktop until we have confirmation of the outcome of this process.

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

- o A computer with a supported operating system, as well as the latest security, and malware updates;
- o A current and updated web browser;
- o Webcam/Camera (built-in or external);
- o Microphone and speaker (built-in or external), or headset with microphone;
- o Current antivirus and/or firewall software enabled;
- o Stable internet connection.

For more information please refer to the UofC [ELearning](#) online website.

7. **Examination Policy:**

Open book and notes are allowed. Communication to other individuals is not allowed.

Students should also read the Calendar, [Section G](#), on Examinations.

8. **Approved Mandatory And Optional Course Supplemental Fees:**

There are no mandatory or optional course supplemental fees for this course.

9. **Writing Across The Curriculum Statement:**

For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section [E.2](#) of the University Calendar.

10. **Human Studies Statement:**

Students will not participate as subjects or researchers in human studies.

See also [Section E.5](#) of the University Calendar.

11. **Reappraisal Of Grades:**

A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See [Section I.3](#) of the University Calendar.

- a. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **ten business days** of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections [I.1](#) and [I.2](#) of the University Calendar
- b. **Final Exam:** The student shall submit the request to Enrolment Services. See [Section I.3](#) of the University Calendar.

12. **Other Important Information For Students:**

- a. **Mental Health** The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, [Mental Health Services Website](#)) and the Campus Mental Health Strategy website ([Mental Health](#)).
- b. **SU Wellness Center:** For more information, see www.ucalgary.ca/wellnesscentre or call [403-210-9355](tel:403-210-9355).
- c. **Sexual Violence:** The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email (svsa@ucalgary.ca) or phone at [403-220-2208](tel:403-220-2208). The complete University of Calgary policy on sexual violence can be viewed at (<https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>)
- d. **Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under [Section K](#). Student Misconduct to inform yourself of definitions, processes and penalties. Examples of academic misconduct may include: submitting or presenting work as if it were the student's own work when it is not; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; collaborating in whole or in part without prior agreement of the instructor; borrowing experimental values from others without the instructor's approval; falsification/ fabrication of experimental values in a report. **These are only examples.**
- e. **Academic Accommodation Policy:** Students needing an accommodation because of a disability or medical condition should contact Student Accessibility Services in accordance with the procedure for accommodations for students with disabilities available at [procedure-for-accommodations-for-students-with-disabilities.pdf](#).

Students needing an accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Associate Head of the Department of Mathematics & Statistics, Mark Bauer by email

bauerm@ucalgary.ca or phone 403-220-4189. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than **14 days** prior to the date in question. See [Section E.4](#) of the University Calendar.

- f. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). Students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information, see [Legal Services](#) website.
- g. **Student Union Information:** [VP Academic](#), Phone: [403-220-3911](#) Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: [403-220-3913](#) Email: sciencerep@su.ucalgary.ca. [Student Ombudsman](#), Email: ombuds@ucalgary.ca.
- h. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction ([USRI](#)) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these surveys.
- i. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or [non-academic misconduct](#), in addition to any other remedies available at law.

Course Outcomes:

- Conduct appropriate parametric and/or non-parametric single and multiple population comparisons (for both qualitative and quantitative data types), applying confidence interval estimation and hypothesis testing. Verify the necessary conditions of: the Normality, the equality of variance, and the dependence of the data structure(s)
- Recognize and distinguish between Type I and Type II errors that accompany statistical hypothesis testing. Displaying the ability to calculate the probabilities associated with these errors, for both single population proportions and large sample sized population means
- Evaluate the correlation between bivariate data for two qualitative variables
- Determine the 'Goodness-of-Fit' of an empirical data set to the well-known probability models: Binomial, Poisson, as well as any specified well-defined model.
- Model and verify the statistical significance of the model relating two quantitative variables (least-squares estimation). Demonstrate awareness of the conditions of the linear model and validate that these conditions are met through various techniques. Produce confidence interval estimation of both the mean and an individual value of the response variable
- Display and interpret the least-squares-estimate for Multiple Linear Regression. To defend, model, and verify the statistical significance of the regression equation's estimate from two or more quantitative and/or qualitative independent variables.
- Conduct population parameter comparisons between three or more quantitative variables through the employment of the balanced: One-Way-ANOVA/Post Hoc inference (Tukey's HSD), Two-Way-ANOVA (including repetition), and with selected Non-parametric counterparts.
- Demonstrate how to use critical thinking, formulae, and statistical software to provide solutions for both theoretical and practical applications of course material.

Electronically Approved - Sep 04 2020 10:03

Department Approval