



COURSE OUTLINE

1. **Course:** STAT 205, Introduction to Statistical Inquiry - Fall 2020

Lecture 01: MWF 11:00 - 11:50 - Online

Instructor	Email	Phone	Office	Hours
James Stallard	jbstall@ucalgary.ca	403 220-3953	MS 582	TBA

Lecture 02: MWF 11:00 - 11:50 - Online

Instructor	Email	Phone	Office	Hours
James Stallard	jbstall@ucalgary.ca	403 220-3953	MS 582	TBA

Please refer to the <http://people.ucalgary.ca/~jbstall/Fall2020/Data205AdditionalCourseInformationFall2020.nb.html> for more detailed Statistics 205 course information, including provisional assignment due dates, lab quiz dates, and midterm exam dates.

Online Delivery Details:

Some aspects of this course are being offered in real-time via scheduled meeting times. For those aspects you are required to be online at the same time.

Course notes and examples, along with their associated video clips, can be found in the Content section of the Statistics 205 D2L course.

Synchronous (live) classes will be given on the following dates in accordance with the scheduled class time of **11:00 - 11:50 am**:

Date	Live Zoom Class
Monday, September 14 @ 11:00 AM	Please refer to the zoom link provided in D2L. These live classes may or may not be recorded.
Friday, September 18 @ 11:00 AM	
Friday, September 25 @ 11:00 AM	
Friday, October 2 @ 11:00 AM	
Friday, October 9 @ 11:00 AM	
Friday, October 16 @ 11:00 AM	
Friday, October 23 @ 11:00 AM	
Friday, November 6 @ 11:00 AM	
Friday, November 20 @ 11:00 AM	
Friday, November 27 @ 11:00 AM	
Friday, December 4 @ 11:00 AM	
Friday, December 9 @ 11:00 AM	

Course Site:

D2L: STAT 205 L01-(Fall 2020)-Introduction to Statistical Inquiry

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):

Mathematics 30-1 or 30-2 or Mathematics 2 (offered by Continuing Education).

Antirequisite(s):

Credit for Statistics 205 and any one of Statistics 213, 217, or 327 will not be allowed. Students may not register in, or have credit for, Statistics 205 if they 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
Top Hat ARS	Bonus 3%	Daily
Assignments (10)	10%	Provisional Assignment due dates. Should these change, you will be given MORE time to complete each assignment. Assignment 1: Sept.16 @ 11:59 PM Assignment 2: Sept.25 @ 11:59 PM Assignment 3: Oct.2 @ 11:59 PM Assignment 4: Oct.9 @ 11:59 PM Assignment 5: Oct.23 @ 11:59 PM Assignment 6: Oct. 30 @ 11:59 PM Assignment 7: Nov. 7 @ 11:59 PM Assignment 8: Nov. 20 @ 11:59 PM Assignment 9: Dec. 4 @ 11:59 PM Assignment 10: Dec.9 @ 11:59 PM
Lab Quizzes (Best 7 of 9)	20%	Lab Quiz 1: Sept. 14 @ 1:00 PM (written in WeBWork) Lab Quiz 2: Sept. 21 @ 1:00 PM Lab Quiz 3: Sept. 28 @ 1:00 PM Lab Quiz 4: Oct. 5 @ 1:00 PM Lab Quiz 5: Oct. 26 @ 1:00 PM Lab Quiz 6: Nov. 2 @ 1:00 PM Lab Quiz 7: Nov. 16 @ 1:00 PM Lab Quiz 8: Nov. 30 @ 1:00 PM Lab Quiz 9: Dec. 7 @ 1:00 PM
Midterm Exam (2)	40%	Midterm Exam 1: Monday, October 19 @ 11:00 - 11:50 AM (written in WeBWork) Midterm Exam 2: Monday, November 23 @ 11:00 - 11:50 AM (written in WeBWork)
Final Exam	30%	A two-hour, online exam written within WeBWork . Time to be scheduled by the Registrar

Time Restrictions: **For each of the nine lab quizzes**, you will write in the 50 minutes that are designed for your registered lab section (T01, T02, etc., T07, T08). The **duration of each lab quiz is 25 minutes plus 13 minutes for technical time, for a total of 38 minutes.**

For **each of the two midterm** examinations, you will be **given 50 minutes plus 25 minutes technical time for a total of 75 minutes.**

For the final exam, you will be given 120 minutes plus 60 minutes for technical time for a total of 180 minutes.

Time will be adjusted for SAS students according to their accommodation letter. Other students requiring accommodations for exceptional circumstances will need to arrange these with the instructor no less than 7 days before the exam.

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	95 %	90 %	85 %	80%	75%	70 %	65 %	60%	55%	55 %	45 %

This course has a registrar scheduled final exam.

A final exam mark of at least 50% is required on the final exam in order to earn a minimum letter

grade of C in the course.

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):

Gould, Ryan, Stalalrd, Boue, *Introductory Statisics: Exploring the World Through Data* Pearson.

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:

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

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

7. Examination Policy:

You are not allowed any aids (notes, solutions in whole or in part to exercises and examples covered at any point in the course) nor electronic devices other than the laptop or desktop that you are to use to write your lab quizzes, midterm exams, and final exam.

You will be provided with a .pdf document of formulae for (i) your midterm exams and (ii) your final exam. You can either download the .pdf onto the same device you are using to write the same course evaluation or print it off.

You are allowed to have one browser window open for each of your lab quizzes, midterm exams, and final exam, that web browser being opened to WeBWork. Additional web-browsers are not permitted at anytime during the writing of these course components.

Please make yourself aware of the University of Calgary's definitions of Academic Misconduct at

<https://ucalgary.ca/policies/files/policies/student-academic-misconduct-policy.pdf>

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 (syasa@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](tel:403-220-3911) Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: [403-220-3913](tel: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:

- Define a random variable; conceptualize its sample space, and calculate the likelihood of various events that random variable(s) could produce.
- Identify a targeted population and its corresponding target parameter. Display how various sampling methods can target a population, with minimal bias.
- Describe and analyze a random variable's properties through a visual and numeric examination of its distribution shape, measure of centre, and measure of spread
- Comprehend and display the Central Limit Theorem and its implications on statistical inference via confidence interval estimation and hypothesis testing. This is to include methodology for both qualitative and quantitative data types as well as for single and multiple population comparisons.
- Explain the correlation between bivariate data, again, for both qualitative and quantitative samples. Constructing the least-squares estimate when applicable.
- 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 09:58

Department Approval