



COURSE OUTLINE

1. **Course:** STAT 205, Introduction to Statistical Inquiry - Summer 2021

Lecture 01: MWF 10:00 - 11:50 - Online

Instructor	Email	Phone	Office	Hours
Dr. Mojtaba Aghajanpoorpasha	mojtaba.aghajanpoorp@ucalgary.ca -		VIA ZOOM	Mon 10-11 am / Wed 3-4 pm

Online Delivery Details:

This course does not follow a scheduled meeting pattern.

This course has a registrar scheduled, asynchronous final exam. The writing time is 2 hours + 50% buffer time, but the exam can be written any time in a 24-hour window.

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.

To help ensure Zoom sessions are private, do not share the Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor's permission.

Delivery of the course material will be done primarily through pre-recorded lecture videos posted on D2L. As there will be no live lecture component, students are not required to attend live (scheduled) lectures.

All additional course material (course note and Video packets, study guides, additional readings and practice, etc.) **will be available on D2L.**

While students will not be required to be online simultaneously (synchronously), **it will be required that students complete scheduled course components within the time period they are available** (please refer to the **course calendar** posted on D2L for further details).

Students will be encouraged to utilize the D2L discussion boards for asking questions about the course content, assignment problems, etc. This is to allow the instructor, TAs, and other students the opportunity to answer questions and to allow students to see responses to questions that they may have. Questions/concerns of a personal or private nature may be conducted through email, and a sincere effort will be made to respond to these emails within a 48-hour window.

Office hours with TAs or the instructor will be conducted via scheduled Zoom meeting times.

Course Site:

D2L: STAT 205 L01-(Summer 2021)-Introduction to Statistical Inquiry

WeBWork: STAT 205

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

* **Academic Integrity:** Due to the unique remote learning environment, we find the possibilities of cheating is a large concern of instructors and students alike. Basic mind-set is on trust between instructor and student and honesty to follow the common sense as students. Please refer to [Academic Integrity for students by Taylor Institute for Teaching and Learning](#).

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
Assignments (10)	25%	Assignments 1, 2: July 04, 2021 Assignments 3, 4: July 11, 2021 Assignments 5, 6: July 25, 2021 Assignments 7, 8: August 01, 2021 Assignments 9: August 05, 2021 Assignments 10: August 11, 2021
Lab Quizzes (best 5 out of 6)	15%	Quiz 1: July 02, 2021 Quiz 2: July 07, 2021 Quiz 3: July 16, 2021 Quiz 4: July 23, 2021 Quiz 5: July 30, 2021 Quiz 6: August 06, 2021
Midterm Exam 1	15%	Mid 1: Monday - July 12, 2021
Midterm Exam 2	15%	Mid 2: Monday - July 26, 2021
Final Exam	30%	To be scheduled by Registrar
Flex	5%	2/3 of the 5% from the best score between the midterm exams and the final exam 1/3 of the 5% from the second best score between the midterm exams and the final 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%	50 %	45 %

* **Assignments** are administered through MyStatLab provided by Pearson. They are available from the first day of the semester to their corresponding due date.

* **Lab quizzes, mid-term exam, and final exam** are administered through WebWork. Make sure to get used to the exam environment through WebWork, along with possible issues to avoid.

Each lab quiz will be available for a 45-minute interval during a given 24-hour period. A student can access a lab quiz any time during the given 24-hour period, but once they open the lab quiz, they have only one attempt to complete it (it cannot be closed and re-opened). The best-scoring five of six lab quizzes will be counted towards the lab quiz grade component. A missed lab quiz will be given a grade of 0%.

Midterm exams will be available for a given 24-hour period. A student can access (**midterm exam 1 for 75 minutes and midterm exam 2 for 90 minutes**) any time during the given 24-hour period, but once they

open the exam, they have only one attempt to complete it (it cannot be closed and re-opened).

This course has a registrar scheduled, asynchronous final exam. The writing time is 2 hours and the exam can be written any time in a 24-hour window. **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.**

This course will have a final exam that will be scheduled by the Registrar. [The Final Examination Schedule](#) will be published by the Registrar's Office approximately one month after the start of the term. The final exam for this course will be designed to be completed within 2 hours.

The final exam will be administered using an on-line platform. Per section [G.5](#) of the online Academic Calendar, timed final exams administered using an on-line platform, such as D2L, will be available on the platform. Due to the scheduling of the final exams, the additional time will be added to **the end** of the registrar scheduled **synchronous** exam to support students. This way, your exam schedule accurately reflects the **start time** of the exam for any **synchronous** exams. E.g. If a **synchronous** exam is designed for 2 hours and the final exam is scheduled from 9-11am in your student centre, the additional time will be added to the **end** time of the **synchronous** exam. This means that if the exam has a 1 hour buffer time, a synchronous exam would start at 9 am and finish at 12pm.

- the latest you should start an asynchronous exam would be 8 am in order to be able to submit the exam at 11am and have the full 3 hours.

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, one possible arrangement is that the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course. This option is at the discretion of the coordinator and may not be a viable option based on the design of this course.

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

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

6. **Course Materials:**

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:**

No aids are allowed on tests or examinations.

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 Services:** 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 (syva@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 integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity. Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional [Code of Conduct](#) and promote academic integrity in upholding the University of Calgary's reputation of excellence. Some examples of academic misconduct include but are not limited to: posting course material to online platforms or file sharing without the course instructor's consent; submitting or presenting work as if it were the student's own work; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; borrowing experimental values from others without the instructor's approval; falsification/fabrication of experimental values in a report. Please read the following to inform yourself more on academic integrity:

[Student Handbook on Academic Integrity](#)
Student Academic Misconduct [Policy](#) and [Procedure](#)
[Research Integrity Policy](#)

Additional information is available on the [Student Success Centre Academic Integrity page](#)

- 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:

- 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 - Jun 29 2021 16:51

Department Approval