# SUMMER 2023 - STAT 270 OL01

Class Number: 2362 Delivery Method: In Person

# Overview

COURSE TIMES + LOCATION:

EXAM TIME + LOCATION:

Jun 29, 2023 Thu 7:00 PM - 10:00 PM Location: BLU 9660, Burnaby

INSTRUCTOR:

Gamage Perera gperera@sfu.ca

Or Corequisite: MATH 152 or 155 or 158, with a minimum grade of C-. Students wishing an intuitive appreciation of a broad range of statistical strategies may wish to take STAT 100 first.

# Description

### CALENDAR DESCRIPTION:

Basic laws of probability, sample distributions. Introduction to statistical inference and applications. Quantitative COURSE DETAILS:

- 1. Introduction to graphical and numerical descriptive statistics including the histogram, boxplot, scatterplot, sample mean, sample median, sample standard deviation, sample coefficient of relative variation, and sample correlation coefficient.
- 2. Elementary probability rules, basic combinatorial formulae, conditional probability, Bayes' Theorem, and independence.
- 3. Introduction to discrete distributions including the probability mass functions, expectation, the binomial distribution, and the Poisson distribution.
- 4. Introduction to continuous distributions including the probability density function, expectation, variance, coefficient of variation, the cumulative distribution function, uniform distribution, gamma distribution, exponential distribution, normal distribution, normal approximation to the binomial distribution, jointly distributed random variables, statistics and their distributions, the Central Limit Theorem.
- 5. Single sample inference including estimation and testing of proportions and means.
- 6. Two sample inference including estimation and testing of differences in proportions and differences in means (paired and non-paired data).

| Assignments  | 20% |
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| Mid-term Exam-In Person-Burnaby Campus June 29th   | 30% |
| Final Exam-In Person-Burnaby Campus - date TBD   | 50% |
| Materials  |     |
| REQUIRED READING:  |     |
| . by Tim Swartz. Publisher: SFU Courseware.  |     |
| ISBN: 9781269737210  |     |
| RECOMMENDED READING:   |     |
| REQUIRED READING NOTES:  Your personalized Course Material list, including digital and physical textbooks, are available through the SFU Bookstore website by simply entering your Computing ID at: <a href="mailto:shop.sfu.ca/course-materials/my-personalized-course-materials">shop.sfu.ca/course-materials/my-personalized-course-materials</a> . |     |
| DEPARTMENT UNDERGRADUATE NOTES:  |     |
| Students requiring accommodations as a result of disability must contact the Centre for Accessible Learning 778-782-3112 o caladmin@sfu.ca.  | ır  |

Students looking for a tutor should visit https://www.sfu.ca/stat-actsci/all-students/other-resources/tutoring.html. We accept no responsibility for the consequences of any actions taken related to tutors.

REGISTRAR NOTES:

SFU's Academic Integrity website <a href="http://www.sfu.ca/students/academicintegrity.html">http://www.sfu.ca/students/academicintegrity.html</a> is filled with information on what is meant by academic dishonesty, where you can find resources to help with your studies and the consequences of cheating. Check out the site for more information and videos that help explain the issues in plain English.

Each student is responsible for his or her conduct as it affects the university community. Academic dishonesty, in whatever form, is ultimately destructive of the values of the university. Furthermore, it is unfair and discouraging to the majority of students who pursue their studies honestly. Scholarly integrity is required of all members of the university. http://www.sfu.ca/policies/gazette/student/s10-01.html

MODIFIED BY:

Department, Statistics Actuarial (stat) on 2023-03-22 12:05 PM