

SPRING 2021 - STAT 475 D100

APPLIED DISCRETE DATA ANALYSIS (3)

Statistical analysis of categorical data

COURSE TIMES + LOCATION:

Mo 10:30 AM – 12:20 PM
 REMOTE LEARNING, Burnaby

Th 10:30 AM – 11:20 AM
 REMOTE LEARNING, Burnaby

EXAM TIMES + LOCATION:

Apr 20, 2021
 12:00 PM – 3:00 PM
 REMOTE LEARNING, Burnaby

INSTRUCTOR:

Joan Hu
 joanh@sfu.ca

PREREQUISITES:

STAT 302 or STAT 305 or STAT 350 or BUEC 333 or equivalent.

Description

CALENDAR DESCRIPTION:

Introduction to standard methodology for analyzing categorical data including chi-squared tests for two- and multi-way contingency tables, logistic regression, and loglinear (Poisson) regression. Students with credit for the former STAT 402 or 602 may not take this course for further credit. Quantitative.

COURSE DETAILS:

Course Outline:

This course introduces students to the most important methods for analyzing categorical data. The focus of the course is twofold: classical methods in categorical data analysis, such as chi-squared tests, and logistic and loglinear (Poisson) regression techniques.

1. Introduction and review: likelihood methods and R
2. Analysis with binary variables
3. Analysis with multcategory variables
4. Analysis with count response
5. Model selection and evaluation
6. Further topics

Mode of Teaching:

- Lecture: Synchronous/Asynchronous
- Tutorial: Synchronous
- Quizzes and Midterm: Synchronous; Date: TBA
- Final exam: Synchronous; date: TBA
- Remote invigilation (Zoom, or other approved software) will be used.

This course is accredited under the Canadian Institute of Actuaries (CIA) [University Accreditation Program \(UAP\)](#). Achievement of the

minimum required grades in accredited courses may provide credit for preliminary exams. Please refer to the combination of courses and grades that may be required to achieve exam credit. Details on the required courses and grades for the Simon Fraser University can be found in the following links:

In addition to the specific university's internal policies on conduct, including academic misconduct and pursuing credit for prior learning, writing professional examinations shall also be subject to the [Code of Conduct and Ethics for Candidates in the CIA Education System](#) and the associated [Policy on Conduct and Ethics for Candidates in the CIA Education System](#). For more information on candidates, please refer to the [CIA Education System](#).

Grading

TEACHING AT SFU IN SPRING 2021

Teaching at SFU in spring 2021 will be conducted primarily through remote methods. There will be in-person course components in a few exceptional cases where this is fundamental to the educational goals of the course. Such course components will be clearly identified at registration, as will course components that will be “live” (synchronous) vs. at your own pace (asynchronous). Enrollment acknowledges that remote study may entail different modes of learning interaction with your instructor, and ways of getting feedback on your work than may be the case for in-person classes. To ensure you can access all course materials, we recommend you have access to a computer with a microphone and camera, and the internet. In some cases your instructor may use Zoom or other means requiring a camera and microphone to invigilate exams. If proctoring software will be used, this will be confirmed in the first week of class.

Students with hidden or visible disabilities who believe they may need class or exam accommodations, including in the current context of remote learning are encouraged to register with the [SFU Centre for Accessible Learning](mailto:caladmin@sfu.ca) (caladmin@sfu.ca or 778-782-3112).