

FALL 2017 - STAT 642 G100

INTRODUCTION TO STATISTICAL COMPUTING AND EXPLORATORY DATA ANALYSIS - SAS (2)*Class Number: 4494 Delivery Method: In Person***COURSE TIMES + LOCATION:**Th 12:30 PM – 2:20 PM
EDB 7618, Burnaby**EXAM TIMES + LOCATION:**Dec 17, 2017
12:00 PM – 3:00 PM
SSCB 9200, Burnaby**INSTRUCTOR:**Jack Davis
jackd@sfu.ca**PREREQUISITES:**

STAT 285 or STAT 302 or STAT 305 or equivalent. Open only to students in departments other than Statistics and Actuarial Science.

Description

CALENDAR DESCRIPTION:

Introduces the SAS statistical package. Data management; reading, editing and storing statistical data; data exploration and representation; summarizing data with tables, graphs and other statistical tools; and data simulation. Students with credit for STAT 340 or STAT 342 may not take STAT 642 for further credit.

COURSE DETAILS:**Course Outline:**

SAS component

1. What is SAS?
 - Downloading and installing
 - Overview of the system
2. Data management in SAS
 - a. Data input and structures
 - DATA step
 - Reading specially formatted files
 - Date/time/character formats and manipulations
 - Derived variables
 - Exporting
 - b. Data access: from database systems using query languages
 - c. Merging and reshaping data
 - sorting/subsetting (set/if/where statements)/ merging/transposing
 - processing using DO LOOPS and SAS arrays
 - modify variable attributes
3. Data exploration and representation in SAS
 - basic procs (print, plot, tabulate, means, univariate, freq)
 - by statement and uses in analysis and simulation
 - output delivery system to extract information from analyses
4. Data simulation in SAS

Grading

Term Test	50%
Final Exam	50%

NOTES:

Above grading is subject to change.

Materials

REQUIRED READING:**Required Text:**

SAS and R, Data Management, Statistical Analysis, and Graphics, 2nd ed, by Ken Kleinman and Nicholas J. Horton, Publisher: CRC Press

Hard Copy ISBN: 9781466584495

eBook ISBN: 9781466584501

eBook Rental ISBN: 9781466584501

GRADUATE STUDIES NOTES:

Important dates and deadlines for graduate students are found here: http://www.sfu.ca/dean-gradstudies/current/important_dates/guidelines.html. The deadline to drop a course with a 100% refund is the end of week 2. The deadline to drop with no notation on your transcript is the end of week 3.

REGISTRAR NOTES:

SFU's Academic Integrity web site <http://students.sfu.ca/academicintegrity.html> 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>

ACADEMIC INTEGRITY: YOUR WORK, YOUR SUCCESS