

SPRING 2016 - STAT 445 D100

**APPLIED MULTIVARIATE ANALYSIS (3)***Class Number: 2941 Delivery Method: In Person***COURSE TIMES + LOCATION:**

Tu 4:30 PM – 6:20 PM  
EDB 7618, Burnaby

Th 4:30 PM – 5:20 PM  
EDB 7618, Burnaby

**EXAM TIMES + LOCATION:**

Apr 22, 2016  
7:00 PM – 10:00 PM  
AQ 3182, Burnaby

**INSTRUCTOR:**

Liangliang Wang

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778-782-3577

Office: SC-K10550

**PREREQUISITES:**

STAT 285 or STAT 302 or STAT 305 or equivalent.

## Description

**CALENDAR DESCRIPTION:**

Introduction to principal components, cluster analysis, and other commonly used multivariate techniques. Quantitative.

**COURSE DETAILS:****Course Outline**

1. Principal Components: Identification, use in multivariate regression, using  $R$  to perform the calculations. (~3 weeks)
2. Cluster Analysis: Survey of commonly used methods, computer calculations, graphical displays, and interpretation of results. (~3 weeks)
3. Other commonly used multivariate techniques subject to interest and expertise of the students and instructor. Examples include the following:
  - a. Ordination Techniques: Methodology and survey of common applications, computer calculations. (~2 weeks)
  - b. Discriminant Analysis: (~2 weeks)
  - c. Canonical Correlation Analysis: (~2 weeks)
4. Student Presentations of Substantive Applications. (~1 week)

## Grading

Assignments	20%
Midterm	30%
Final	50%

## NOTES:

***All grading is subject to change.***

## Materials

## REQUIRED READING:

**Required Text:**

***Applied Multivariate Statistical Analysis, 6th ed.* by R.A. Johnson and D.W. Wichern. Publisher: Prentice Hall.**

## DEPARTMENT UNDERGRADUATE NOTES:

**Students with Disabilities:**

Students requiring accommodations as a result of disability must contact the Centre for Students with Disabilities 778-782-3112 or [csdo@sfu.ca](mailto:csdo@sfu.ca)

**Tutor Requests:**

Students looking for a Tutor should visit <http://www.stat.sfu.ca/teaching/need-a-tutor-.html>. We accept no responsibility for the consequences of any actions taken related to tutors.

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