# STA437/STA2005 - Methods for Multivariate Data

# University of Toronto Fall 2014

Lectures:

Monday 6-9pm at SS1073

Instructor:

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SS6025

Office Hours:

Monday 4:30-5:30pm or by appointments.

# Course Description

This course deals with practical techniques for the analysis of multivariate data including most of the following topics: fundamental methods of data reduction with an introduction to underlying distribution theory; basic estimation and hypothesis testing for multivariate means and variances; regression coefficients; principal components and partial, multiple and canonical correlations; multivariate analysis of variance; profile analysis and curve fitting for repeated measurements; classification and the linear discriminant function.

## Prerequisite

Introductory data analysis similar to ECO375/STA302/STA352 is mandatory. Linear algebra equivalent to APM233/MAT223/MAT240 is recommended.

#### Textbook

R. Johnson and D. Wichern (2007). Applied multivariate statistical analysis. Pearson, 6th ed.

### **Evaluation**

	Scheme#1	Scheme#2	date, time and location
Assignment	30%	30%	2 sets
Mid-term test	25%	35%	October 20, 6-8pm, location: TBA
Final exam	45%	35%	TBA

Note: Final grade will be whichever the maximum between Schemes #1 and #2.

### Note

No late assignment will be accepted. There are no make-up tests. If a test is missed and a proper documentation is handed in within a week of the test, the weight of missed test will be shifted toward final.