

STA437/STA2005 - Methods for Multivariate Data

University of Toronto Winter 2019

Lectures: Monday 7-10pm at WB116
Instructor: Gun Ho Jang
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Office: EP103A
Office Hours: Monday 5:30-6:30pm 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. Advanced linear algebra equivalent to MAT224/MAT247 is highly recommended.

Textbook

T.W. Anderson (2003). An Introduction to Multivariate Statistical Analysis. Wiley, 3rd ed.

Reference

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

Evaluation

	Proportion	date, time and location
Assignment	0%	3 5 sets
Term Test I	33%	Feb 4, 7-9pm, location: TBA
Term Test II	33%	Mar 18, 7-9pm, location: TBA
Final exam	34%	TBA

Notes

- * No makeup test will be given for missed mid-term tests. If you miss a mid-term test and provide a valid medical record to the instructor within a week, your mark on the final exam will be substituted for the missing test.
- * Mid-term tests and final exam will be closed book with no aids allowed except a non-programmable calculator. Formulae sheets will be provided if necessary.

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On tests and exams:

1. Using or possessing unauthorized aids.
2. Looking at someone else's answers during an exam or test.
3. Misrepresenting your identity.

On assignments:

1. Using someone else's ideas or words without appropriate acknowledgement.
2. Submitting your own work in more than one course without the permission of the instructor.
3. Making up sources or facts.
4. Obtaining or providing unauthorized assistance on any assignment (this includes collaborating with others on assignments that are supposed to be completed individually).

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources (see www.utoronto.ca/academicintegrity/resourcesforstudents.html).

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