

**STAT 465 (MAST 674/MAST 874)**

Multivariate Analysis  
*Winter 2016*

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**Office Hours:** Wednesdays, 10:30-12:00

**Text:** *Applied Multivariate Statistical Analysis*, 6th Edition, by R. A. Johnson and D. W. Wichern, Pearson Prentice Hall (2007).

**Other Reference:** *Linear Statistical Inference and Its Applications*, 2nd Edition, by C. R. Rao, Wiley (1973).

**Final Grade:**

- Assignments (15%)
- Mid-term test (40%)
- Final examination (45%)

**Note:**

- Assignments are compulsory. Late assignments will not be accepted.
- A mid-term exam will be held on **March 3, 2016**. This exam, as well as the final, will be closed book exams.
- Please note that there are **no supplemental privileges** in this course.
- For students in MAST 674/874, additional reading material and/or a project will be included in assignments.

Week	Topics to be Covered	Sections
1	Matrix Algebra & Random Vectors	2.2-2.5
2	Matrix Algebra & Random Vectors	2.6-2.7 & Supplement
3	The Multivariate Normal Distribution	4.1-4.5
4	The Multivariate Normal Distribution	4.6-4.8
5	Inferences about a Mean Vector	5.1-5.4
6	Inferences about a Mean Vector	5.5-5.8
7	Comparisons of Several Multivariate Means	6.1-6.2 <b>MID TERM TEST</b>
8	Comparisons of Several Multivariate Means	6.3-6.6
9	Principal Components	8.2-8.4
10	Factor Analysis and Inference for structured covariance matrices	9.1-9.4
11	Canonical Correlation Analysis	10.2-10.6
12	Discrimination and Classification	11.1-11.5
13	Discrimination and Classification & Review	11.6-11.8