Course Syllabus: STA 135 (Winter 2017)

Multivariate Data Analysis

(draft)

(Acknowledgments: Chris Drake)

Meeting time: MWF - 4:10pm to 5:00pm in Wellman Hall 234
Discussion: W - 3:10pm to 4:00pm in Olson Hall 147 [A01]
Discussion: F - 3:10pm to 4:00pm in Olson Hall 147 [A02]

Instructor: Bala Rajaratnam
Office: 4208 Mathematical Sciences Building (MSB) for office hours
4224 Mathematical Sciences Building (MSB)
Email: For responses regarding HW cjconley@ucdavis.edu
For admin. related emails brajaratnam@ucdavis.edu

Office Hours: MWF 2:10-3:00pm (tentative)

TA: Christopher Conley
Office: 1117 Mathematical Sciences Building (MSB)
Email: cjconley@ucdavis.edu

Office Hours: T: 11:00am to 12:00pm, R: 11:00am to 1:00pm

Text: Applied Multivariate Statistical Analysis (6th Edition) by Johnson and Wichern – required

Pre-requisites: Recommended STA130A & STA130B, linear algebra, multivariable calculus (or equivalent)
Note that STA135 is also offered next quarter

Syllabus: Chapters1--6, 8--11 of required text

Grading: Two Midterms: Jan 27 and Feb 24 (in class); 25% each.
Final exam - take home due to TA on Friday 03/17/2017 at 5:00pm; 40%
If you miss an exam you will receive zero points unless you are ill or have a family emergency. These have to be documented at your earliest convenience in writing and well before the final. If you have an extenuating circumstance for absence for midterms 1 or 2 your final will count 65% of the grade. If you miss the final exam due to illness you will receive an incomplete if you have at least a grade of D at that point. An incomplete requires that you take the final exam of another class within the next 3 quarters.

Homework: Homework will be assigned throughout the quarter. It counts 10% towards your grade. Late homework will not be accepted.

Other: Please put STA135 in all email correspondence to try and avoid email going to the spam folder.
Please come to class on time and find seating so as to be considerate towards fellow students.

Materials to be covered (tentative):

Introduction	Chapter 1
Matrix Algebra and Random Vectors	Chapter 2
Random Sampling	Chapter 3
The Multivariate Normal Distribution	Chapter 4

MIDTERM I Friday, January 27

Inferences about a Mean Vector	Chapter 5
MANOVA	Chapter 6
Principal Components	Chapter 8
Factor Analysis	Chapter 9

MIDTERM II Friday, February 24

Canonical Correlations Analysis	Chapter 10
Discrimination and Classification	Chapter 11

Expectation of students:

1) Read material before class and write summary /questions
2) Attend class on time
3) Follow lecture and participate
4) Attend discussion sections and participate
5) Discuss material covered in class with study group
6) Do homework and hand in HW on time
7) Go to office hours if you have questions
8) Prepare in advance for midterms