## COURSE SYLLABUS

Psychology 594
Multivariate Analysis in Psychology and Education
Fall, 2011

Instructor: Teaching Assistant:

Lawrence Hubert Ehsan Bokhari

433 Psychology Building 418 Psychology Building

Office Hours: Wednesday 1–3 TBA

Lectures: Wednesday and Friday 10-12

31 Psychology Building

## Tentative Topic Sequence:

| topic  | reading                                 |
|--|---|
| I. Introduction/Matrix Algebra                   | Matrix Algebra Notes                    |
| II. Matlab Introduction                          | Getting Started Guide<br>Slide Handouts |
| III. Random Vectors/Matrices, Linear             |   |
| Combinations, Random Sampling                    | Handout Notes                           |
| IV. Multivariate Normal Distributions            | Handout Notes                           |
| V. Principal Components                          | Handout Notes                           |
| VI. Factor Analysis                              | Handout Notes                           |
| VI. Canonical Correlation                        | Handout Notes                           |
| VI. Discrimination/Classification                | Handout Notes                           |
| VII. Clustering/Scaling Proximity Representation | My Matlab Toolboxes                     |
| Multivariate Methods with R (if time permits)    | Slide Handouts                          |