Semester course: STAT 7560 -- 3 CREDIT HOURS

1. Transcript Abbrevation: (maximum 18 characters)

Mult Statist An

2. Long course title

Multivariate Statistical Analysis

3. Course description: (maximum of 250 characters)

Matrix normal distribution; Matrix quadratic forms; Matrix derivatives; The Fisher scoring algorithm. Multivariate analysis of variance; Linear and nonlinear random coefficient growth models; Principal components; Factor analysis; Discriminant analysis; Mixture models.

4. Prerequisites / Co-requisites (use quarter and semester codes):

Stat 6802 (Stat 622) or Permission of Instructor

5. Exclusions (use quarter and semester codes):

Stat 755 or Stat 756

6. A list of topics that make up the course: (One per line, max of 15 topics -- if you course description is a list of topics, I can just use that list)

1 Properties of the Matrix Normal Distribution
2 Properties of Matrix Quadratic Forms
3 Matrix Derivatives
4 The Fisher scoring algorithm with equality constraints on parameters
5 Multivariate analysis of variance
6 Linear random coefficient models for growth over time;
7 Nonlinear random coefficient models for growth over time
8 Principal components
9 Factor analysis
10 Discriminant analysis
11 Mixture models.

7. Does you class have a component that is not just a lecture (YES/NO):

NO

8. If your course is not a straight conversion and adds or removes material, write a brief rationale for the change (one sentence - max 250 characters).

This course is an amalgamation of a two quarter sequence (STAT 756-757) with a change of coverage.