MthStat 568
Multivariate Statistical Analysis

Spring 2017  Class # 62657, meets MW, 3:30-4:45pm, EMS E170
Instructor  Daniel Gervini (gervini@uwm.edu), office EMS E487, hours: Tuesdays 3-5pm
Software  Matlab. Datasets and programs are available on D2L
Prerequisites  MthStat 362 and Math 535, or instructor’s consent

Brief Course Description
Multivariate Analysis is the field of Statistics that studies random vectors, i.e. datasets where several variables are simultaneously observed for each individual. In this course we will go over the most common multivariate techniques: principal component analysis, canonical correlation, classification, discrimination, clustering, and multidimensional scaling. The course will be (mostly) computer-oriented rather than theory-oriented. We will use real datasets for class examples as well as for homework problems. The computer work will be done in Matlab, using existing programs and functions (you won’t have to do any programming).

Homework and Final Work
There will be several homework assignments (about 10) and a final work. Homework will account for 80% of the grade. There is no make-up or do-over for homework assignments, so don’t rush them in. Homework is due in class on the due date (email is fine if you can’t make it to class); late homework will not be accepted.

The final work (20% of the grade) is due the final exam day: Friday, May 19.

Grade Scale
For undergraduate students

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<tr>
<th>Grade</th>
<th>A</th>
<th>B+</th>
<th>B</th>
<th>B-</th>
<th>C+</th>
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<tr>
<td>Score</td>
<td>&gt;80</td>
<td>75-80</td>
<td>70-75</td>
<td>65-70</td>
<td>60-65</td>
<td>50-60</td>
<td>&lt;50</td>
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For graduate students

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<tr>
<td>Score</td>
<td>&gt;75</td>
<td>50-75</td>
<td>&lt;50</td>
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(you get a C if you turned in at least 80% of the homework, otherwise you get an F).

Audit policy: there’s no “satisfactory” auditing; all auditors will get an NC (“not completed”) grade regardless of work and attendance.