

MATH 511 — LINEAR ALGEBRA

Text: Strang, *Linear Algebra and its Applications, Third Edition.*

Specifically, the course will cover Sections 1.1–1.7, 2.1–2.6, 3.1–3.4, 3.6, 4.1–4.4, 6.1–6.2, 6.4, 7.1–7.2 (omitting minimax principles in 6.4).

Grading policy: There will be two in-class examinations, each of which will count 25 per cent, there will be a third take-home examination that will count 30 per cent, and there will be a homework score that will count 20 per cent. The cutoff points for A, B, C, D, F will be determined individually for each examination, and for grading purposes the raw numerical scores will be normalized as follows:

4.0 = perfect paper, 3.0 = lowest A, 2.0 = lowest B, 1.0 = lowest C, 0.0 = lowest D, –1.0 = zero score. If the raw numerical score lies between two of these values, the normalized score will be determined by linear interpolation.

EXAMPLE. If the lowest A is 88, the lowest B is 72, and a student's raw numerical score is 76, then the raw score is 4 points above the lowest B, the difference between the lowest A and the lowest B is 16 points, and therefore the grade is $\frac{4}{16} = \frac{1}{4}$ of the way from the lowest B to the lowest A; linear interpolation means that the normalized score on the examination is 2.25.

Similar cutoff points will be established for homework scores. However, if the weighted averages of the three examinations is greater than the homework average, then the weighted average for the examinations will determine the final grade.

EXAMPLE. Suppose the normalized scores for the in-class examinations are 2.6 and 2.7, the normalized score for the take-home examination is 2.8, and the normalized score for the homework is 2.5. Then the weighted average for the examinations is

$$(25 \times 2.6 + 25 \times 2.7 + 30 \times 2.8) / 80$$

which simplifies to 2.7625. Since the normalized homework score is less than this, the final numerical average will be 2.7625.

Dates of examinations: The in-class examinations will take place on Tuesday, October 4, and Tuesday, November 15. Further information on material covered by the in-class and take-home examinations will be given later.

Attendance policy: No formal records of attendance will be kept, but regular attendance is encouraged. Unless there is a specific, verifiable excuse for emergency medical reasons, University activities, or other highly unusual circumstances, all responsibility for catching up lies with the student.

Needless to say, attendance at in-class examinations is required, and examinations will be rescheduled only in extreme cases. In cases of unexcused absences a zero score will be recorded for an examination.

The due dates for homework will be at least one week from the date of assignment. Late homework will be accepted up to one week after the due date with a 30 per cent penalty on the score. Special appeals to accept late homework beyond the deadline or without penalty can be made to the instructor if there are unusual circumstances as described above. If there is a valid excuse as indicated above, these rules may be modified.

Format of class sessions: For the most part, the classes will be lectures with student questions encouraged. Students should not hesitate to ask questions, especially if they do not understand something or if something in the lecture seems wrong—even if everyone else seems to understand. It is the instructor's responsibility to answer all such questions without condescension or ridicule.

Questions on homework are generally best answered at the beginning of class. In general these are encouraged, but the instructor reserves the right to limit such question periods to 10 minutes per class.