MT 210/03 Linear Algebra  
Fall 2011 Syllabus

Schedule: MWF 1 pm, Carney 103

Instructor: Mark Reeder, office: Carney 322, email: reederma@bc.edu.

Office hours: MW 3-4, Th 2-3 and by appointment. Email is good for quick questions and hints.

Prerequisites: Calculus. Taking MT202 concurrently is sufficient.

Course website: https://www2.bc.edu/mark-reeder/210.html

Text: The text will consist of notes posted on the course website. The other sections of MT210 are using the textbook *Linear algebra and its applications* by David Lay. We will not use this book at all.

Course Topics (tentative):

I. $2 \times 2$ Linear Algebra: arithmetic of matrices, special types of matrices, determinant and trace, linear maps, reflections, Fibonacci numbers, migration, eigenvalues and eigenvectors.

II. $3 \times 3$ Linear Algebra: three dimensional space, matrices and determinants, kernel of $3 \times 3$ matrix, eigenvalues and eigenvectors, orthogonal matrices and symmetries of space.

III. General Linear algebra: vector spaces, linear independence, basis, dimension, rank of a matrix...

Homework: It will be assigned and collected every week, approximately. HOMEWORK WILL NOT BE ACCEPTED AFTER THE DAY IT IS DUE. Your lowest homework score will be dropped, so you can miss one assignment without harming your grade. Homework must be written neatly and with care for its presentation. A sloppy job may be rejected.

Exams: We will have two in-class exams on Friday Oct. 7 and Friday Nov. 11 and a final exam Friday, Dec. 16, 9:00 am.

Exams must be taken as scheduled, except for documented illness or family emergency. If you have special issues regarding exams, I need to hear about them this month, with documentation from the appropriate offices of Boston College.

No electronic devices (e.g., calculators or cell phones) will be used on exams.

Grading: Homework: 20%, Midterm exams: 25% each, Final exam: 30%.

After the final exam, these weights are used to combine your homework and exam scores into a number between 0 and 100. The highest score will probably be an A, and similar scores will receive similar grades. This procedure determines the rest of the grades. Individual exam scores are not curved. They just contribute to the final score, which is “curved” as described above.