

Math 33AH, Linear Algebra and Applications
Winter 2013
Course Information

Class Hours: MWF, 10am–10:50am, MS 7608.

Instructor: Mario Bonk

Office: MS 6137

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Tentative office hours:

Mo, 11am–12pm,

We, 2pm–3pm,

Th, 2pm–3pm, and by appointment.

Textbook: G. Strang, Introduction to Linear Algebra, 4th ed.

Grading: There will be weekly homework, one midterm, and a final exam. This will be weighted towards the course grade as follows:

Homework: 40%

Midterm: 20%

Final: 40%

For passing the course it is necessary to turn in homework regularly. No late homework will be accepted. Failure to turn in three homework assignments will automatically result in a failing grade.

Final exam: We, March 20, 2013, 11:30am–2:30pm.

Course topics: Systems of linear equations, Gauss-Jordan elimination, linear transformations, matrix algebra, inverse matrices, vector spaces, subspaces, linear independence, bases, dimension, kernel and image of linear transformations, coordinates, orthogonality, orthonormal bases, orthogonal projections, orthogonal transformations and matrices, Gram-Schmidt process, QR-factorization, least squares methods, determinants, eigenvalues, eigenvectors, diagonalization of matrices, symmetric matrices, singular-value decomposition.