

Syllabus EK102

Instructor Prof. E. Barouch

Office: 15 St. Mary Room 134

Office hours: M10-12 and by appointment

Graders: TBA

Policy:

There will be 3 hourly exams. No final

Homework will be given weekly, graded and returned

HW are mandatory, no late HW accepted.

There will be no discussion sessions

Textbook: A ref. Will be recommended but not required.

Grade:

HW 20%, Tests: 15%, 20%, 25%

Topics to be covered:

1. Determinants and their properties.
2. Classification of linear equations
3. Solutions of linear equations.
4. Expressing linear equations as a matrix $\times$ vector = vector.
5. Elementary property of square matrices.
6. Inversion of Matrices.
7. Eigen value theory.
8. Graham-Schmidt normalization process.
9. Rectangular matrices.
10. Singular value decomposition (SVD)