

MATH 211 L01.
M.W.F. 12:00 in A 140
Winter 2009

Instructor: Jędrzej Śniatycki, MS 320. Office hour: Wednesday, 14:00 - 15:00 (by appointment only).

Text: Keith Nicholson, Elementary Linear Algebra, McGraw-Hill, Second Edition.

Quizzes: There will be 3 quizzes given in labs. Credit: 10% per quiz. Each quiz will consist of two problems. Duration: 50 min.

Midterm (50 min) in class on Wednesday, February, 25. Credit: 20%.

Final Exam (3 hours) scheduled by the Registrar. Credit: 50%

Detailed Lecture Schedule

Week	Material	Topics	Comments
Jan 12-16	1.2.1-1.2.3	Linear equations	
Jan. 19-23	1.2.4, 1.3	Rank, Homogeneous systems	
Jan. 26-30	1.1, 1.4.1-1.4.4	Matrix algebra	
Feb. 2-6	1.5.1-1.5.5	Matrix inverses	Quiz 1
Feb. 9-13	2.1.1-2.2.3	Determinants	
Feb. 16-20	-	-	Reading Weak, no classes
Feb. 23-27	2.3.2	Eigenvectors	Midterm Feb. 25.
Mar. 2-6	2.3.3	Diagonalization	
Mar. 9-13	2.5.1-2.5.3	Complex numbers	
Mar. 16-20	2.5.4-2.5.6	Complex numbers	Quiz 2
Mar. 23-27	3.1-3.2	Geometric vectors, dot product	
Mar. 30-Apr.3	3.2-3.3.3	Lines and planes	Quiz 3
Apr. 6-9	3.3.4- 3.4.3	Cross product,	
Apr. 13-17	3.4.4-3.4.5	Transformations.	
Apr. 20-30	-	-	Final Exams

- **Homework.** Students are expected to prepare themselves to lectures by reading **before** each lecture the section of the text to be covered in the lecture. After the lecture, students should read the appropriate section in the text and do problems in this section.
- **Lectures** are complementary to homework. They will be used to explain new ideas and techniques of solving problems given in the text. Students are responsible for all material in the sections of the text listed above.
- **Labs** If a quiz is not scheduled, Instructors will discuss problems from the sections to be covered in the lab and answer student's questions. Otherwise, Instructors will administer the quiz. Marked quiz will be returned during the following lab.
- **Problems.** Students are expected to attempt all problems in the sections of the text covered in the course (see the Calendar of Lectures above). At least half of the problems on the Final Exam will be taken from the text, except for a change of numerical data.
- **Continuous Tutorials** in MS. 569. M.T.W.R. 12:00-15:00 and F. 12:00-14:00. It is a drop-in tutorial service starting on Monday, January 19. No registration or appointment necessary. Please use it if you have any question about the material or problems in the text.
- **Midterm** will consist of a multiple choice (true or false) questions.

Detailed Lab Schedule:

Jan. 12-16 No labs.

January 19-23 Detailed discussion of Sec.1.2.4. In particular equation (**). Section 1.2 Exercises # 9 c and d.

Jan. 26-30 Sec. 1.2.3 - 1.3. Detailed discussion of Gaussian algorithm. Sec 1.2.3 Example 9, 11, Sec 1.2. Exercises # 3 and 4. Sec. 1.3 Example 3

Feb. 2-6 Quiz 1 Linear equations Sec. 1.1 - 1.3. Marked quizzes are to be returned to the students during the next lab.

Feb. 9-13 Sec. 1.4 Examples 2, 3 and 11. Sec. 1.5 Examples 8 and 9.

Feb. 16-20 Reading Weak, no classes.

Feb. 23-27 Sec. 2.1 Examples 1, and 4. Sec.2.2 Examples 2, 3, 5, 7 and 8.

Mar. 2-6 Sec. 2.2 Examples 3 and 9. Sec. 2.3 Examples 2, 3 and 4.

Mar. 9-13 Sec. 2.3 Examples 5, 6 and 7.

Mar. 16-20 Quiz 2 Matrices Sec. 1.4 - 2.3. Marked quizzes are to be returned to the students during the next lab.

Mar. 23-27 Sec. 2.5. Examples 1, 2, 4, 8 and 11.

Mar. 30-Apr.3 Quiz 3 Complex numbers, Sec 2.5. Marked quizzes are to be returned to the students during the next lab.

Apr. 6-9 Sec. 3.1 Examples 1, 5, 7. Sec. 3.2 Examples 3, 4, 8.

Apr. 13-17 Sec. 3.3 Examples 2, 4, 5, 7, 11, 13, 14.