• **Instructor:** Daniel Ramras, Assistant Professor, Department of Mathematical Sciences.
  E-mail: ramras@nmsu.edu  Office Phone: 646-2105

• **Office Hours:** SH 243, W 1:30-2:20, Th 2:35-3:30.

• **Course Webpage:** [http://www.math.nmsu.edu/~ramras/480-fall-2011.html](http://www.math.nmsu.edu/~ramras/480-fall-2011.html)
  Course handouts and a calendar listing required reading and assignment deadlines will be available here.

• **Objectives:**
  
  – The purpose of this course is to present the contemporary theory and applications of linear algebra to university students studying engineering, mathematics or applied science at the post-calculus level.
  
  – An application driven course, whose topics include rectangular systems, matrix algebra, vector spaces and linear transformations, inner products, and eigenvalues and eigenvectors. Applications may include LU factorization, least squares, data compression, QR factorization, singular value decomposition, and search engines.

  We will cover Chapters 1–5 and parts of Chapters 6–7.

• **Prerequisites:** Grade of C or better in any Math or Stat 300-level course, or consent of instructor.

• **Computer Algebra System/Calculators:** A computer algebra system, such as Maple, MatLab, Mathematica or MuPad will be useful for some matrix problems. Most graphing calculators have matrix functionality. Another choice for doing problems is to use Scientific WorkPlace/Scientific Notebook. The computers in the SH 118 have Scientific Notebook installed. Calculators will not be allowed on quizzes and exams.

• **Office Hours:** Students are encouraged to attend office hours regularly, in Science Hall room 243 (near the main Math Department office). Office hours provide an excellent chance for in-depth discussion of class materials and problems. Even if you don’t have specific questions to ask, listening to other students’ questions can be quite valuable. Asking questions in class and by e-mail (ramras@nmsu.edu) is also encouraged.

• **Help with Academic Skills:** The Center for Academic Success, in Hardman Hall, is a campus wide academic support program established to help students maximize their learning potential.

• **Attendance and Performance:** Students are expected to attend class consistently. That means showing up on time and staying for the full class period. You will be expected to come to class prepared and ready to participate, having done the required reading and assignments. Please do not use electronic equipment such as cell phones, music players, or computers during class. These activities are a disruption to the instructor and to the other students.

  Course requirements must be completed in a timely manner. Make-up quizzes and exams will be allowed only with a justifiable excuse, presented in advance whenever possible. Make-ups will be taken in the testing center in Walden Hall. If you miss class for any reason, it is your responsibility to contact me in a timely manner to find out what you have missed and arrange any make-ups.

  I encouraged you to discuss the course material and assignments with me and with your classmates. Working in small groups can greatly enhance your learning experience. You will gain insight from other students’ experiences, get practice explaining your ideas, hear and think about other students’ questions, and compare class notes with other students. However, you are expected to write up your solutions by yourself, whether or not you solved the problems with other students. All written work you turn in must be your own.
• **Reading and Homework:** Reading and homework problems will be assigned regularly. To succeed in this course, you must keep up with both the reading and the assigned problems. You should always read the relevant material **before** attempting the problems. Writing careful solutions to the problems will be indispensable to your learning in this course. Until you can write a solution that someone else can read and understand, you haven’t fully completed a problem. Although the assigned problems will not be collected, the in-class quizzes will include problems similar to the homework.

• **E-mail:** Course and university communications will come to your NMSU e-mail box, so access it regularly or set up forwarding. When writing me e-mail, make sure to include your name!

• **Grading:** Your final grade will be based on quizzes (20%), group projects (10%), two midterm exams (each worth 20%), and a comprehensive final exam (30%). If your final exam grade exceeds one of your midterm exam grades, I will replace your lower midterm exam grade by your final exam grade. (Grades of zero will not be replaced.) Your letter grade in the course will be assigned as follows: 90% guarantees a grade of A− or better, 80% - B− or better, 70% - C− or better, 60% - D− or better.

• **Quizzes:** There will be 10-minute in-class quizzes throughout the semester, given at the start of class. Quizzes will have a take-home component, due on the day of the quiz. Make-up quizzes will be allowed only with a justifiable excuse, provided in advance whenever possible. Your lowest quiz score will be dropped.

• **Exams:** The mid-term exams will be held in class on Thursday, September 29 and Thursday, November 10. The comprehensive final exam will be held on Tuesday, December 6th from 1:00pm–3:00pm in SH 114. Except in the case of a genuine emergency, you must inform me at least one week in advance if you are unable to attend an exam. Make-up exams will be allowed only with a justifiable excuse.

• **Regrade Policy:** If you feel that an assignment (or exam) has been graded incorrectly, you must submit a separate written explanation, along with the original graded assignment. These should be submitted to the instructor by the class period following the return of the assignment.

• **Withdrawal Policy:** I hope dropping the course will not be necessary, but note that Tuesday, March 8 is the last day to drop with a W. Midterm grades will include quizzes, written assignments, and the first exam.

• **Students with Disabilities:** Feel free to call the Coordinator of Services for Students with Disabilities, at 505-646-6840, with any questions you may have on student issues related to the Americans with Disabilities Act (ADA) and/or Section 504 of the Rehabilitation Act of 1973. All medical information will be treated confidentially.

• **Institutional Equity:** Feel free to call the Director of Institutional Equity, at 505-646-3635, with any questions you may have about NMSU’s Non-Discrimination Policy and complaints of discrimination, including sexual harassment.

• **Incomplete Grades, Academic Misconduct:** [http://www.nmsu.edu/~vpsa/SCOC/misconduct.html](http://www.nmsu.edu/~vpsa/SCOC/misconduct.html). Plagiarism is a form of academic misconduct. The university’s policy on plagiarism is available at the website listed above, and reads in part: “Any ideas, words, pictures, or other intellectual content taken from another source must be acknowledged in a citation that gives credit to the source. This is true no matter where the material comes from, including the internet, other students work, unpublished materials, or oral sources. Intentional and unintentional instances of plagiarism are considered instances of academic misconduct. It is the responsibility of the student submitting the work in questions to know, understand, and comply with this policy.”