

MATH 3130-300: Linear Algebra, Summer 2009
MTWRF 9:15-10:15 AM, ECCR 116
June 1, 2009 - July 24, 2009

General Information:

Instructor: Michael D. Roy **Office:** MATH 216
Email: Michael.D.Roy@colorado.edu **Office Hours:** MWF 10:15-11:15

Course Webpage: <http://euclid.colorado.edu/~roymd/m3130sum09/>

Prerequisites: MATH 2400 (Calculus III), or the equivalent

Text: Bretscher, *Linear Algebra with Applications*, 4th ed. (Prentice Hall) 2009.

Course Outline: This course will cover basic properties of systems of linear equations, vector spaces, linear independence, dimension, linear transformations, matrices, determinants, eigenvalues, and eigenvectors. This material is covered in Chapters 1-8 of the text. I recommend that you also review the appendix.

Homework: A list of homework problems from the textbook is included at the end of this syllabus. Those listed in bold will be collected weekly, on **Tuesdays** (up through problems assigned the previous **Friday**). They will account for **10%** of your overall grade. The other problems will not be collected, but you should be sure to do them regularly nonetheless, since they will help you gauge whether you are understanding the relevant concepts, may contain background ideas that will help you with the graded problems, and may appear on exams. You are welcome to collaborate with your peers on the homework, but each student is expected to write up and hand in his or her own solutions. Homework may be turned in early if you wish, but **LATE HOMEWORK WILL NOT BE ACCEPTED.**

Note that the collected problems are among the more theoretical of the homework problems. This is not intended to suggest that the theoretical problems are more important than the applied problems; rather, they are being graded since it may be more difficult for you to determine whether your solutions to these problems are correct without this feedback.

The majority of the assigned problems are odd-numbered and so have answers given in the back of the book; I will post solutions to the others periodically on the course webpage.

Exams: There will be three exams (**June 19, July 10, and July 24**), each **30%** of your overall grade. All exams will be held at the same time and place as the regular class. Calculators will not be allowed on the exams. The exams will be semi-cumulative, but focus on the newer material.

Grading: You will be graded on your written work, which will be judged on the basis of *correctness*, *completeness*, and *legibility*. Your final grade will be determined by the scores of your homework and exams. To combine these items the following weights will be used:

Homework: 10%

Midterm Exams: 30% each

There will be no extra credit assignments.

Getting Help: Don't wait until it is too late if you need help. Feel free to ask questions at any time during class, or to schedule an appointment to see me outside of class. I will also answer questions asked via e-mail.

Accommodations for disabilities: If you qualify for accommodations because of a disability, please submit a letter to me from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Willard 322, or <http://www.colorado.edu/disabilityservices>.

Religious observances: If you have any course-related conflicts due to religious obligations, please let me know as soon as possible so that accommodations can be made.

Miscellaneous University Rules and Regulations:

- **Honor Code:** All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council (honor@colorado.edu; 303-725-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Additional information on the Honor Code can be found at
<http://www.colorado.edu/policies/honor.html>
<http://www.colorado.edu/academics/honorcode/>
- **Classroom behavior policy:** Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at:
<http://www.colorado.edu/policies/classbehavior.html>
<http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#studentcode>
- **Sexual harassment policy:** The University of Colorado at Boulder policy on Discrimination and Harassment, the University of Colorado policy on Sexual Harassment and the University of Colorado policy on Amorous Relationships apply to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of discrimination or harassment based upon race, color, national origin, sex, age, disability, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH, the above referenced policies and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://www.colorado.edu/odh>