

Math 215-005 - Introduction to Linear Algebra (Spring 2011)

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Office Hours: Mondays 3:00 - 4:50pm and Wednesdays 4:00-4:50pm in Math 217.
Office hours can be continued right after class on both Mondays and Wednesdays. If you cannot make it to any of my regularly scheduled office hours, I am also available all day Tuesdays and various times on Mondays and Wednesdays by appointment. Please email me to schedule an appointment, include a few possible times you could meet me at my office (Math 217), and I will reply with which one works best for me.

Course: Math 215, section 005, Introduction to Linear Algebra
Prerequisite: Math 129 or Math 250A
Meeting Info: MW 5:00-6:15pm, Psychology Rm 307
Course Website: www.math.arizona.edu/~math215
Textbook: Linear Algebra and its Applications, 3rd edition, by David C. Lay (Pearson Addison Wesley 2006)

Description: Linear equations and systems, matrix algebra, and determinants. Vector spaces, linear independence, and linear transformations. Eigenvalues, eigenvectors, inner products, and orthogonality.

Content

Math 215 is a concrete introduction to linear algebra and serves as an introduction to mathematics as a deductive discipline. The primary purpose of the course is to introduce students to the linear algebraic algorithms which are vital for the solution of many mathematical and scientific problems - row reduction of linear systems, least squares approximations, and eigenvalue/eigenvector analysis. A gentle introduction to mathematical reasoning and proofs is a secondary goal.

Attendance

Students are expected to attend every scheduled class and to be familiar with the University Class Attendance policy as it appears in the General Catalog. Students with more than three unexcused absences may be administratively dropped from the course. It is the students responsibility to keep informed of any announcements, syllabus adjustments or policy changes made during scheduled classes.

Homework & Quizzes

Homework: Problem sets will be assigned on a regular basis throughout the semester; typically one assignment per section of the text that is covered. Homework in this course will typically be assigned and graded using Webassign. I will also give a list of problems from the text that can be used as supplemental exercises to help further your understanding of the material covered in the course. A few times throughout the semester written homework may be assigned and collected. These assignments will cover material that does not lend itself easily to Webassign's formatting; for example questions that may ask you to justify, show, or prove something. You will be responsible for understanding, and being able to complete all problems assigned as homework during the course of the semester, including both the problems in Webassign and the written homework. When completing written homework, you must adhere to the guidelines below when submitting your work for grading.

Homework Guidelines:

1. Homework of more than one page should be STAPLED (using one single staple in the upper left hand corner of the page; NO corner origami allowed!).
2. At the top of the first page of each assignment turned in, you should give your name (at least your last name), your course and section number, and the date.
3. Homework should be done neatly and legibly, **always showing your work**.
4. Homework should be done one problem below the previous one, not in multiple columns.
5. If you use a pen that bleeds through the paper, don't do work on both sides of the paper.

Webassign: A license for Webassign must be purchased (I believe it is 17.95) either at webassign.net (using a credit or debit card) or from the bookstore. When enrolling be sure to enter the following "Class Key,"

Section 005: arizona 6311 4452

If you have not used Webassign before, you must create a Webassign account. To do this, use your @email.arizona.edu username.

Quizzes: There will be occasional in-class quizzes throughout the semester, to ensure you are keeping up with the homework assignments and to prepare you for the exams. Quizzes will usually be administered toward the end of class, and will generally be between 10 and 15 minutes in duration. In only the rarest of circumstances will you be allowed to make-up any missed quizzes during the semester. To have any chance of this occurring, you must inform the instructor of your absence in advance, and make prior arrangements for a make-up.

Grading: Homeworks, both webassign and submitted, and your quizzes will count for a total of 300 points throughout the semester. We will have 28 webassign HWs in total throughout the semester of which your best 25 will count toward the grading; 6 quizzes, of which your best 5 will count toward the grading; and 3 submitted HW assignments outside of webassign. The 5 best quizzes will count for 75 points and the submitted HWs for 25 points, with Webassign HWs making up the remaining 200 points.

Exams

There will be three 100-point in-class exams throughout the semester, and a comprehensive final exam at the end of the semester. Dates for the in-class exams will be announced during class, at least one week prior to the exam. A tentative schedule, which includes an approximate week when the exams will likely be held can be found at the end of this document. More information regarding the final exam can also be found below.

Missed Exams

Make-up exams will be given only for an unavoidable and documented absence. The student must contact the instructor PRIOR to the exam to be eligible for a make-up. A make-up exam must be scheduled within **24** hours of the missed exam, and taken before the next time the class meets. There will be no make-ups allowed for the in-class quizzes. When it is deemed appropriate by the instructor, a portion of the final exam can be used to replace a missed exam score. This action is only a possibility if the student misses an exam for a catastrophic reason and is unable to make up the exam in a timely manner, and even then there is no guarantee that this will be allowed.

Final Exam

The final exam for this course will be comprehensive, it will test all material covered throughout the entire semester. The exam will be graded out of 200 points. The final exam is scheduled for **Thursday, May 12th, from 1pm - 3pm**. Please do not arrange to leave town prior to this date, as this exam will only be given on the date scheduled by the University. The University's Exam regulations for finals week will be strictly followed. The regulations can be found at <http://catalog.arizona.edu/2009-10/policies/exams.htm> and <http://registrar.arizona.edu/schedule101/exams/examrules.htm>. It is the student's responsibility to inform the instructor of any potential conflict with the final exam schedule no later than Monday, April 25th.

Final Course Grades

The course will have 600 points available on homeworks, quizzes, and tests during the semester, and as stated above the final will be worth 200 points. Thus, there will be a maximum of 800 total points available for the semester. Grades are guaranteed to be no lower than those set forth in the following table:

800-point Scale	Percentage	Letter Grade
720-800	90-100%	A
640-719	80-89%	B
560-639	70-79%	C
480-559	60-69%	D
0-479	0-59%	E

Academic Integrity & Classroom Conduct

Students are responsible to inform themselves of University policies regarding the Code of Academic Integrity and The Student Code of Conduct. Students found in violation of the Code are subject to penalties ranging from loss of credit for work involved, to a grade of E in the course, and possibly risk suspension or probation. The Code of Academic Integrity will be enforced in all areas of the course, including, but not limited to, tests and quizzes. The guiding principle of academic integrity is that a student's submitted work must be the student's own. For more information about the Code of Academic Integrity policies and procedures, see University policies at <http://dos.web.arizona.edu/uapolicies> and also information about your rights and responsibilities as a student at <http://w3.arizona.edu/studpubs/policies/cacaint.htm>.

Withdrawals & Incompletes

Withdrawals: If you withdraw by September 17th, the course will remain on your UAccess academic record with a status of dropped, but will not appear on your transcript. If you withdraw from the course by October 15th, you will receive a grade of “**W**” (if passing); instructor's signature indicating permission on a Change of Schedule form is required. After October 15th, ALL REGISTRATION CHANGES REQUIRE not only the instructor's signature indicating permission on a Change of Schedule form, but also the Dean's signature; by policy, permission from the Dean to make a registration change at this time requires an extraordinary reason. A grade of “**W**” or “**E**” will be awarded for dropped classes.

Incompletes: A grade of Incomplete will be given only according to University Policy as described at <http://www.registrar.arizona.edu/grade/policy/incomplete.htm> . In particular, incomplete grades are not to be awarded when the student must repeat the course; in such a case, the grade of “**E**” must be assigned. The grade of “**I**” will be awarded, only if all of the following conditions are met:

1. The student has completed all but a small portion of the required work.
2. The student has scored at least 50% on the work completed.
3. The student has a valid reason for not completing the course on time.
4. The student agrees to make up the material in a short period of time.
5. The student asks for the incomplete before grades are due, 48 hours after the final exam.

Students with Disabilities

If you anticipate issues related to the format or requirements of this course, please meet with your instructor to discuss ways to ensure your full participation in the course. If you determine that formal, disability-related accommodations are necessary, it is very important that you be registered with The Disability Resource Center (520-621-3268; drc.arizona.edu). You should notify your instructor of your eligibility for reasonable accommodations by Friday, September 3rd. You and your instructor can then plan how best to coordinate your accommodations.