

Math 362: Linear Algebra

MWF 1:00 – 2:05 PM; DA 303

Fall 2017

Contact Information:

Instructor: Professor C. Crawford

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Office Hours:

Monday 11:00 AM – 12:00 PM

Tuesday 1:30 PM – 3:00 PM

Thursday 11:00 AM – 12:00 PM

By appointment

Course Description:

This course is an introduction to linear algebra. Topics include systems of linear equations, matrix algebra, determinants, vector spaces, linear transformations, orthogonality, and eigenvalues. The course content combines computation with an increasing emphasis on reading and writing proofs as the course progresses. **Prerequisite:** Math 251 Multivariate Calculus and Math 301 Discrete Math.

Instructional Materials:

Required Text: *Linear Algebra and its Applications*, by David C. Lay (4th Edition). We will be covering chapters 1-7. Selected topics from other chapters may also be included.

Grading

Homework/Quizzes/Projects	100 pts	Wednesdays; <i>Tentatively: 9/13, 9/27, 10/25, 11/8, 12/6</i>
Seminar/Career Night	20 pts	Wednesdays 4:00 – 5:00 PM / Career Night TBD
2 Exams (100 pts each)	200 pts	<i>Tentative Dates: 10/04 & 11/15</i>
Final Exam	<u>200 pts</u>	Date: 12/13 at 1:00 – 3:00 PM
	520 pts	

Your final letter grade for the course will be based on the percentage of total points earned. Excessive and consistent disruptions (e.g. tardiness, leaving class for drinks or the restroom, cell phones, etc.) may result in lowering your grade up to one full letter grade. **All cell phones must be turned completely off and put away.** *Having a cell phone out during an exam or quiz will result in an automatic 0 grade for the exam or quiz.*

EXAMS: Two exams are tentatively scheduled for **Wednesdays: October 4 and November 15**. You must take all exams in class on the announced dates (subject to change at my discretion). **No make-up exams will be allowed.** See below for the replacement policy.

FINAL EXAM: The cumulative final exam will be on **Wednesday, December 13 from 1:00 PM - 3:00 PM**.

EXAM REPLACEMENT POLICY: If your final exam percentage is greater than your lowest exam score, the final exam percentage will replace the lowest exam score. *You will not be allowed to take an exam early or late for any reason.* If you miss any exam(s), your final percentage will serve as the score for the missed exam(s), so there is no need for make-up tests. Only the missed exam score(s) will be replaced. The final exam score cannot be replaced..

QUIZZES: Five Quizzes are tentatively scheduled for **Wednesdays: 9/13, 9/27, 10/25, 11/8, and 12/6**. They will typically be given during the first 15-20 minutes of class. Additional quizzes may also be given, with advance notice. For every 3 in-class quizzes, I will drop 1.

HOMEWORK: Typically, homework will be assigned each class and (a portion of) it will be **due Wednesday of the next week** unless there is a quiz or exam that week or otherwise noted. Additional homework may be collected, with advance notice. You have a **next day by 4pm** grace period on assignments without penalty (unless this option is abused or otherwise noted). You will be docked 10% for each *day* late thereafter. **Late homework**

will not be accepted after the assignment has been graded. Homework scores are typically based on solutions to a few of the problems and overall completeness. For every 3 homework assignments graded, I will drop 1.

PROJECTS: Projects may be assigned periodically throughout the semester. You will **not** be allowed to drop any of these project scores.

Any projects and the remaining homework and quiz grades will be scaled to 100 points.

SEMINAR: As part of your grade, you are **required to attend one of the math seminars** held Wednesdays 4:00-5:00 PM in DA 213 and hand in a 1-2 page Summary/Evaluation Paper. Seminar Summary/Evaluation Papers receive a holistic (overall) grade based on the guidelines below.

Seminar Summary/Evaluation Paper Guidelines:	
Attendance : <ul style="list-style-type: none"> Attendance and written paper 	~60%
Content: <ul style="list-style-type: none"> Clear summary of the main point(s) and some details of the talk [Note: You will often not understand everything in the talk, nor are you expected to. But you should be able to explain the main point(s)/some details clearly (e.g. Imagine trying to explain what you did understand of the talk to another math/science major who was not in attendance.).] Evaluation of the topic [Note: The evaluation is not a critique of how well the speaker presented the material, but more about the ideas presented and their potential impact on you and to the broader science or education community. You should also consider any limitations or questions you have about the talk along with possible extensions for further work.] 	~20%
Mechanics & Format: <ul style="list-style-type: none"> 1-2 pages, double-spaced, 1-inch margins Clear and skillful organization and writing Error-free Neat and professional presentation 	~20%

CAREER NIGHT: As part of your grade, you are **required to attend Career Night** (*date, time, and location TBD*) and hand in a one-page reaction/summary paper.

Policies and Academic Integrity: You are expected to adhere to the College Academic Integrity Policy as stated in the *E-Book* as it applies to this class. For example, *obtaining or attempting to use unauthorized materials or information or unauthorized help from another person or source is considered **cheating**.*

- Test and quizzes, whether take-home or in-class, are to be your own work unless otherwise stated.
- Calculators and notes are not allowed on quizzes and tests unless otherwise stated. If calculators are allowed, you may not store any notes or unauthorized programs on the calculator.
- Having a cell phone out during an exam or quiz will result in an automatic 0 grade for the exam or quiz.
- **You may work with others on your homework and are encouraged to do so.** But you must turn in your own homework unless specifically stated as group work requiring one submission.
- Individual projects should be your own work. All group members should make quality contributions to group projects.

Accommodations: The College will make reasonable accommodations for persons with documented disabilities. A student with a disability that may have some impact on work in this course should contact Dr. Corinne Smith, Disabilities Service Coordinator, at 630-617-6448 and **then contact me.**