

# Math 272-02 Linear Algebra with Applications

Fall 2015

MWF 11:00-11:50

Pardee 227

**Professor:** Mary Clair Thompson      **Office:** Pardee 202

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**Office Hours:** MW 1:30-2:30, T 10:30-11:30, R 1:30-2:30; *other times by appointment.*

**Other Online Course Materials:** [moodle.lafayette.edu](http://moodle.lafayette.edu)

**Text:** Elementary Linear Algebra, Applications Version, 11th Edition, Anton, Rorres, ISBN 978-1118434413

**Course Goals and Learning Outcomes:** The student work in this course is in full compliance with the federal definition of a four credit hour course. Please see the Lafayette College Compliance webpage for the full policy and practice statement.

Upon successful completion of this course, you should understand: basic matrix arithmetic; various data about matrices including determinants, eigenvalues, and some decompositions; various methods for solving linear systems; matrices as linear transformations; the geometry of vector spaces and inner product spaces; and some basic applications of the techniques of linear algebra.

**Homework:** Homework assignments are listed online, and it is your responsibility to complete the assigned homework corresponding to the sections covered in class. It is also your responsibility to bring your work with you to class. I plan to collect and grade 6 assignments throughout the semester; the collection will not be announced beforehand, so you must be vigilant about completing the homework yourself and bringing it with you. I will collect homework in the first ten minutes of class, and **will not** accept late homework without an official excuse. In addition, you *must* turn in the homework in person; I will not accept your homework if it is handed in by someone else without an official excuse. I plan to drop one homework grade.

**Quizzes:** I plan to give a short (two question) quiz each Friday, except for weeks when a test is scheduled. The quizzes will include material covered from the previous Friday to Wednesday of the current week. I will drop your two lowest quiz grades.

**Labs:** In order to fulfill the 4 credit hour requirement, you will be expected to complete and turn in labs. Labs will be assigned weekly, with the exception of weeks on which an exam is scheduled. All lab due dates will be available on Moodle, and I expect you to keep up with the deadlines without constant reminders from me. I will drop one or two lab grades, depending on how many labs we have time for.

**Tests:** There will be three regular tests and a comprehensive final. I **will not** drop a test grade. Exams will be given at night in Acopian 200, from 7:30pm-9:00pm, on the following dates:

Test 1    October 1  
Test 2    November 5  
Test 3    December 3

**Grades:**

Tests (3 @ 80 points each)	240
Homework average (5 total graded)	80
Quiz average	80
Lab average (8 total graded)	80
Final	<u>120</u>
Total	600

**Grading Scale:**

A	93-100%	(558+ points)
A-	90-93%	(540-557 points)
B+	87-89%	(522-539 points)
B	83-87%	(498-521 points)
B-	80-83%	(480-497 points)
C+	77-79%	(462-479 points)
C	73-77%	(438-461 points)
C-	70-73%	(420-437 points)
D	60-69%	(360-419 points)
F	<60%	(<360 points)

**Projected Course Content:** As I better determine the needs of this class, this schedule will change. Thus I reserve the right to add to/subtract from the schedule. However, at present I plan to cover the sections in the following order:

1.1-1.8, Test 1  
2.1-2.3, 3.1, 4.1-4.4, Test 2  
4.5-4.8, 5.1-5.2, 6.1-6.3, Test 3  
1 week of review  
Final exam (comprehensive)

**Office Hours:** I will be in my office during the hours listed on this syllabus. You do not need to make an appointment to see me during those times. If you need extra help from me outside of the hours I've listed, let me know; I will do my best to accommodate you.

**Honesty:** I expect all students in this course to be honest in all of their academic work. Your further participation in this course is a tacit agreement to commit to acting in an honorable fashion

in this academic community and signifies that your failure to comply with this commitment may result in disciplinary action. I **will** report any suspected case of academic dishonesty to the Dean of the College. Penalties for academic dishonesty are often quite severe; it is certainly better to earn a low grade honestly than to take the chance of being caught cheating.

While I encourage students to collaborate on homework and labs, I also expect that the materials you turn in reflect your own work on the assignment. You may not copy or paraphrase the work of another student, nor should you use another student's work as a model for your own.

During examinations and quizzes, you must not confer with other students, look at their papers, or use any unauthorized sources of information. Additionally, you may not allow another student access to your work. It is also dishonest to seek information about an examination from another student before taking a make-up examination.

In order to help assure honesty on in-class evaluations, I require that you show an appropriate amount of work for each problem on a quiz or test. The less detail you show, the less credit you will receive; unjustified answers will receive a score of 0.

See the Student Handbook for a complete statement of the College's Policy on Academic Honesty.

**Accommodation for Disabilities:** Students who require such considerations should make an appointment with me during the first week of classes. Please bring your memo from ATTIC.

**Attendance Policy/Absence from Quizzes and Exams:** I will not be taking attendance. If you miss a quiz or test you may make it up only if you have a Dean's excuse, doctor's excuse, or athletic excuse for the affected day.

**Calculator Policy:** Calculators are not required in class. You may use calculators to assist with the homework, but they are only allowed on tests or quizzes if announced beforehand.

**Email Policy:** Email is an official form of communication at Lafayette College; you are responsible for checking your email often.

**Important Dates:**

August 31	Classes begin
September 11	Deadline for adding/dropping courses
October 12-13	Fall Break
October 23	Mid-term
November 18	Last day to withdraw
November 25-29	Thanksgiving Break
December 11	Last class day
December 15-22	Final exams

The final exam date and time for this class will not be set until a few weeks into class. The date and time will be posted on my website once it becomes available. Until that time, **do not** make any travel plans for the entire exam period listed above; I will not be willing to move an exam for a student who has done so precipitously.

**Student Expectations and Responsibilities:** While there is no attendance policy in this class, I expect you to be in class on time every day, and to stay for the entire period. Missing class means that you will lose valuable opportunities to interact with me and your peers. In addition, if you make skipping class into a habit, I will not be willing to set up extra office hours to help you catch up.

You are likely to find that the level of work required to succeed in this class (as well as in most college courses) is remarkably higher than what you were used to in high school. Indeed, a great improvement in your thinking and studying skills is expected from you as a college student, and the rolls of a college professor vs. high school teacher reflect that leap. I am supposed to cover a great deal of material in a relatively short period of time. Thus my goal is *not* to force information into your head, rather to make that information understandable, giving you the tools to learn effectively. Your ability to use these tools will determine your success in this class.

I expect you to remain alert and engaged during class. Sleeping, texting, studying for other classes, or any behavior that interferes with the ability of other students to learn is unacceptable. If any of these things become an issue I will ask you to leave class for the day.

I also expect you to ask me questions during class whenever you are confused (no need to ask permission); that is simply part of the learning process. However, I do require respectful and thoughtful behavior from you; again, I will not tolerate any actions that prevent others from learning.

You must remain thoroughly engaged in your own learning process. This means that you *must* seek help when you see that you need it. Help can come in many forms: coming to my office hours or making an appointment to see me and getting help from your friends in the class are both good places to start.

Your phone should be on silent during class; I don't want to hear it ring or vibrate while I'm teaching. In addition, texting during class is rude and disrespectful; if I catch you texting chronically, I will ask you to leave class. Please refrain from using your cell phone during class time. In particular, if you are caught with a cell phone on your desk, in your lap, or anywhere in view while taking a quiz or test, I will view this as a case of academic dishonesty which will be reported to the Dean.