

Hello, scientist. Linear algebra is the most practically important subject in mathematics.

Learning Goals

In this course, you will

- learn that a linear transformation is determined by its action on a basis.
- collaborate and use powerful digital resources to solve serious mathematical problems.

Grading Policy

- Your grade will be computed as follows.
 - In-class work: 10%
 - Homework: 30%
 - Midterm I, Midterm II, Final Exam (10/8, 11/12, 12/19): 20% each
- I will post assignments, announcements, exams, and grades to Blackboard. As always, this is an official line of communication for this course. Check it regularly.
- The textbook for the course is Lay, *Linear Algebra and its Applications*, 5th Edition. The content of the book hasn't changed much from the 4th Edition, but problem numbers have. For reasons that will be clear shortly, ready access to a textbook is critical in this course.
- In-class work will be assessed every day that we meet. The lowest three assignments will be dropped at the end of the semester; this is the makeup policy.
- Homework is the most significant component of this course. Homework will be assessed *formatively*, which for us means the following: you'll be given two opportunities to submit each problem. Each problem will be graded 0/2/6/10, so you can do good work on an assignment and still earn a 60% or lower on your first attempt; this is normal. The only points on a first draft that are locked in are the 2 that you get for making a serious attempt before the due date. After you get feedback, you'll submit a final draft the next week.
- There will be two midterm exams and a final. If an emergency precludes your ability to submit an exam on its due date, it is your responsibility to contact me by email within two days after that due date. (If you know in advance that you will be missing any exam dates, please let me know as soon as possible.)
- The "sunset provision." We want you to succeed, and one of the most important metrics for success is improvement. If your score on the second exam is higher than your score on the first, your score on the first exam will be replaced by the formula $(2\text{exam}_1 + \text{exam}_2)/3$, after which it is locked in. (Said differently, if you do better on the second exam than the first, then the second exam will count for twice as much as the first does.) The same policy applies with the second exam augmented by your score on the final.
- For example, let's say you get raw exam scores of 60 90 80. The sunset provision augments your first exam score, and the grades **70** 90 80 are used to compute your course grade.

Resources

- You belong here. It will not always seem that way, but you were accepted to a top-tier liberal arts college. Yes, you. You personally. It is my responsibility as a teacher to challenge you, and I will do so in many ways. No challenge is more important than your personal well-being.
- Know your [rights as an Oberlin student](#). They are yours.
- The fastest and surest way to contact me is by email, sbalady@oberlin.edu. I am always available by email. If you ever have any questions about anything, send me an email. I don't promise that you'll get the response that you want, but I do promise that you'll get a response. If I don't respond within a day, please send me a reminder: I am not ignoring you, but I am often forgetful.
- My office is King 204, and my office hours will be posted prominently on Blackboard soon. You are welcome to come and discuss *anything* during my office hours. Be aware that I give priority to students who discuss mathematics and to students who come in a group. You are also welcome to come by during these hours for a cup of coffee or tea.
- If you want to talk with me individually in person for any reason, send me an email telling me your availability in the next few days. You are also welcome to knock on my office door at any time, but please be understanding if I tell you that I am busy at that moment.
- If you have an accessibility issue that may require individual accommodations, please consult with me and the Office of Disability Services within the next two weeks.
- A significant percentage of homework questions (roughly half) will require access to MATLAB. The Biology Lab (K100) and King 137 both have current MATLAB installations with every relevant add-on. You can also [buy a copy of the MATLAB and Simulink Student Suite](#) for \$100; if you have any serious long-term interest in mathematical modeling, my opinion is that this is a good investment (but wait until after the first few homework assignments to decide).

Academic Integrity

- As a student of Oberlin College, you have a set of responsibilities. One such responsibility is to write and sign the Honor Pledge on each assignment:

“I affirm that I have adhered to the Honor Code in this assignment.”

If you forget or choose not to sign, I reserve the right to request a conversation with you before grading the assignment. (I am not allowed to penalize you in any way other than withholding a grade. This is one of your rights as a student. Know your rights.)

- For all work in this class, by signing the Honor Pledge, you affirm the following:
 - The work represents *your understanding* of the material.
 - Any resources that you used to create the work are properly cited.
- I reserve the right to create assignments that further restrict your resources. *Unless I explicitly do so, you are expected to use everything.* Welcome, scientist. Don't work alone.