

# Linear Algebra

## MATH 224W – Spring 2015

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Weeks 1 & 2: Intro, linear systems, matrices, matrix arithmetic

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Writing Assignment #1

due Monday, August 31

$\LaTeX$  Everyone should do the first step below. The remaining steps are then to be done as a team.

- (1) Go to <https://www.sharelatex.com/> and sign up for an account
- (2) **Team Member 1:** In a new window, go here to get a  $\LaTeX$  template:  
<https://www.sharelatex.com/project/54bea727838dbf4542f54fb7>
- (3) **Team Member 1:** Click on the menu icon (upper-left corner - 3 horizontal lines); select “Copy Project”
- (4) **Team Member 1:** When prompted for a name, choose something like “Linear Algebra - Assignment - 0” and click “Copy”
- (5) **Team Member 1:** When this completes you will be back in your own workspace (instead of mine). The  $\LaTeX$  source is on the left, and the pdf output is on the right. Look over the  $\LaTeX$  code. Much of it may seem mysterious right now, but some of it will make sense.
- (6) **Team Member 1:** Edit the  $\LaTeX$  code so that the course name reads “Linear Algebra,” you and your team member are the authors, and the date reflects the due date of this assignment. Press the “Recompile” button if you are impatient like me.
- (7) **Team Member 1:** Edit the  $\LaTeX$  code so that the body of the document begins as follows:  
“Hi Josh, it’s *⟨insert name⟩*. Did you know that *⟨insert super interesting story about yourself⟩*?” Oh, and I’ve thought a lot about how I approach mathematics, and I wanted to let you know that I think I’m strongest at *⟨insert skill you have that you believe will help you crush this course⟩*. I probably should also mention that I have a lot of room for improvement when it comes to *⟨insert “mathematical” skill that you really need to work on⟩*. Let me end by saying that I’m really *⟨insert feeling⟩* about this course!  
Press the “Recompile” button, and make sure that the pdf looks beautiful.
- (8) **Team Member 1:** Click on the share icon (upper-right - 5 headed beast). Enter your team member’s email address, make sure they “can edit” it, and “Share.”
- (9) **Team Member 2:** Check your email, and find the invitation to join the project. Click on “View Project” in the email. You should be taken into your own account, and you should be able to see the shared project.
- (10) **Team Member 2:** Go into the project. Add a new paragraph to the body of the document that reads,  
“Hi Josh, it’s *⟨insert name⟩*. Did you know that *⟨insert super interesting story about yourself⟩*?” Oh, and I’ve thought a lot about how I approach mathematics, and I wanted to let you know that I think I’m strongest at *⟨insert skill you have that you believe will help you crush this course⟩*. I probably should also mention that I have a lot of room for improvement when it comes to *⟨insert “mathematical” skill that you really need to work on⟩*. Let me end by saying that I’m really *⟨insert feeling⟩* about this course!  
“Recompile” the document.
- (11) **Team Member 2:** Click on the download pdf button (second one to the right of the “Recompile” button).
- (12) **Team Member 2:** Email the beautiful pdf to me at [jwiscons@hamilton.edu](mailto:jwiscons@hamilton.edu)

**Make sure to write in complete sentences and use correct punctuation! Please be thoughtful in your responses.**

## Homework #1

due Thursday, Sept. 3

§1.1 #2, 6, 8, 10, 12, 16, 30

For #30, read Example 7 on pp. 7–8. Be sure to define your variables!

§1.2 #4, 6(b)(c)(f), 8(a)(d)(e), 10, 11

$\LaTeX$  Go here to view the “Assignment Template And Learning LaTeX” project:

<https://www.sharelatex.com/project/54beb831838dbf4542f550fd>

Read through the pdf and compare with the  $\LaTeX$  source. Feel free to copy it to your workspace if you want. There is nothing to turn in for this.