Guidelines for the Linear Algebra Project.

1. Be sure that each group member does an approximately equal amount of work. You should let me know of egregious violations.
2. You will need to turn in a rough draft of your write-up and discuss your oral presentation with me before you give it. You will find the due dates attached.
3. The goal of the project is to tie linear algebra to other branches of mathematics and to other disciplines. Both your write-up and your presentation should reflect this.
4. In both the write-up and the oral presentation, all sources should be cited. This includes references to the text. It also includes giving credit for any images or figures copied or adapted from other sources.
5. In both your write-up and your presentation you should aim for an economy of words. Do not obfuscate by using overly complicated language. Do not assume that your classmates know what you are referring to, unless it was covered in our class. You should present the essence of your subject.
6. You do not need to include calculations in either your write-up or your presentation.
7. Original work and thinking is encouraged (but not necessary). If you think you have new ideas you should talk them over with me before including them in your project.
8. For guidelines on giving a good mathematics presentation, see
http://techspeaking.denison.edu/
http://www.maa.org/students/presentation.pdf
9. In your write-up, you do not need to include the definitions of basic terms (like vector space, eigenvalue, field, orthogonal, etc.).
10. In your write-up and oral presentation, you should include examples to demonstrate the point you are making.
11. You should practice your oral presentation.
12. You should practice your oral presentation, using whatever media you will use for the talk (eg. The chalkboard in the classroom, the computer in the classroom...)
13. If you will have significant numbers of equations in your write-up, you may want to use software other than Microsoft Word. Talk to me to discuss other options; these include Maple, Scientific Word, and LaTex.

Components of the Project.
I.   3-4 page write-up.
II.   15-20 minute oral presentation.
III.   2-3 questions to be distributed to the class and considered for inclusion on the final exam. You should provide me both the questions and the answers (see the deadlines below.) The questions may be general, overview questions or a specific problem. I will photocopy them and distribute them to the class.

Grading Rubric

I) Write-up (50 pts)

A) Quality of Content (20 pts)

Does the write-up contain significant mathematics that wasn't covered in class? Is it more than a list of definitions and theorems? Are there interesting examples? Is the mathematics correct? Have the relevant ideas been effectively synthesized?

B) Connections to Linear Algebra (10 pts)

Are connections to course material made explicit? (The degree to which this can be done depends on the project. The grading will take this into account.)

C) Quality of Writing (20 pts)

Is the writing clear and concise? Are the spelling and grammar correct? Are sources cited appropriately? Is active voice used, where appropriate? Is the tone professional? (You may use the first person, but you should not be overly familiar with your reader.) Are mathematical terms used correctly and appropriately?

II) Oral Presentation (50 pts)

A) Quality of Content (20 pts)

Are interesting topics covered? Have the relevant ideas been synthesized? Is effective use made of examples?

B) Connections to Linear Algebra (15 pts)

Is the talk accessible to your classmates? How well do you tie your topic to the topics covered in the course?

C) Quality of Talk (15 pts)

Are the guidelines from the websites above followed? Is the presentation smooth? Do the speakers address the object directly? Are the slides too crowded? Is good chalkboard technique utilized? How well are questions handled? Is it clear that the talk has been practiced? If there are multiple speakers, are the transitions between them smooth? Does the talk within the allotted time?

Note: Point deductions may be made for turning in preliminary work late, for not contributing to your group, for not paying attention to other groups' presentations, and, in general, for being unprepared. *This includes difficulties with technology.* If you are using a computer, be sure you test it in the classroom the day of or the day before your presentation.

Deadlines:

Nov 18:	Outline of write-up/oral presentation (due by email).
Nov 21:	Rough draft of write-up (in class or by email).
Nov 25:	Go over oral presentation with professor.
	Final Exam questions due.
Dec 1/Dec 3:	Oral Presentations. Be prepared to go on either day.