MATH 1553 EXTRA CREDIT PROJECT

Spring 2016, ~~Grodzinsky~~ **Barone**

Two of the most important concepts we will learn in Linear Algebra are Eigenvalues/Eigenvectors and Solving Systems of Linear Equations, both of which are applied to many fields of study.

You may choose one of the above topics and conduct some additional research on how the topic is used in your field of study (i.e., how does an industrial engineer apply eigenvalues, what are linear systems used for in the natural sciences, etc.). Then turn your research into a "work of art." Be creative and make it fun! Some ideas (you are not limited to these) are posters, poems, slide shows, short videos (limit of two minutes), cartoons, games, or models.

Rules for the project:

- The extra credit project is *optional*.
- You may work with other classmates to conduct your research, *but you must list on your bibliography the names of the students with whom you worked*. Your project must contain a bibliography, so please keep track of all sources used. You may use primary sources, such as interviewing a professor or professional in your major, or secondary sources of books, magazines, encyclopedias, etc. Websites are allowed if they are refereed sources ("Wikipedia" is not acceptable). If you use a website, you must include the full link in your bibliography. *If plagiarism is suspected, your project will be submitted to the Dean of Students office!*
- The project must address at least one real-life application of the chosen topic, preferably to your field of study. Include a short explanation with your project.
- **The project itself must be composed by you alone**. Since the project is your own creation, I expect everyone's final result will be very different. You must sign an honor pledge that the project is your own creative expression.
- Where appropriate (if the project is in electronic form), your project should be turned in by **email** ~~adding it to the "Extra Credit" homework assignment on Canvas~~. If your project is a poster, model, etc., then it should be turned in to ~~Mrs. Grodzinsky in Skiles 232~~ (if you are coming outside of office hours, please check with me first to see if I'll be in the office). **Sal in Skiles 024**
- I reserve the right to display your project on our class websites or during our class lectures. This way, we can share the applications you have found with the rest of the class (don't worry, I will not ask you to present the project in the lecture hall!).
- **No late projects will be accepted!**

Deadlines and Grading:

- All projects are due no later than 12:00 PM (NOON) on ~~**Tuesday, March 15.**~~ **Friday April 1**
- Each student may submit only one project.
- The project will be scored on a scale of 0-12 (out of 10). The score will replace a lowest ~~homework grade, either from a turn-in or online homework assignment.~~ **Quiz grade**
- The project cover sheet and grading rubric is listed below. Please include the cover sheet with your final product.

MATH 1553 EXTRA CREDIT PROJECT COVER SHEET
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Print your name: _____

By signing here, you certify that the completed project is your own, it is not copied from any sources, and that you did not give or receive help in creating the project (collaboration on the research is allowed as long as it is documented in your bibliography).

Sign your name: _____

Project (circle one): Eigenvalues/Eigenvectors ~~Linear Systems~~ **not available**

Your intended major: _____

Grading Rubric

Project Detail	***Number of possible points***	***Your Score***
Complete bibliography included	"0" ON PROJECT IF NOT INCLUDED	Yes No
Signed honor statement	"0" ON PROJECT IF NOT INCLUDED	Yes No
Short explanation of the application to field of study	2	_____/2
Project provides a real-life application	2	_____/2
Project is mathematically accurate	5* (1 extra point for clear mathematical understanding)	_____/4
Project is unique and creative	3* (1 extra point for added creativity)	_____/2
Total Possible Points:	**12**	_____/10

In the space below, please provide a brief explanation as to how your project relates to your field of study. You may use the back of this sheet or another page if more space is required.
You may list your references on the back of this sheet, or provide a separate bibliography page.