WHAT IS EXPECTED IN THE PROJECT
Math 221

In the project, you are expected to study with analytical and/or numerical methods that you should find in the existing literature, a topic of your own choice relating to the application of a differential equation to a specific physical, chemical, biological, engineering or other setting. If you can't find one, create your own differential equation problem and analyze your own work.

You should spend a considerable amount of time familiarizing yourself with the relevant model and examining in detail the methods developed mathematically or computationally to study it. You should be able to analyze the model equation and methods: Why was your chosen model equation better/more applicable than another? Why was it the best option for the field you are addressing? How/Where does your chosen model equation apply to another field?

You are expected to compose a writeup of 4-5 pages which is to be sent to Dr. Oh in .pdf form by December 17.

A rough guideline for your writeup is the following.

- You should have an introduction presenting the physical problem and the model differential equation that is relevant for it.

- You should have a results section that presents the analysis and mathematical and/or numerical results that you have obtained from it.

- Finally, you should also have a summary/discussion/conclusion, detailing the outcome and impact of your results to the physical problem of interest.

A rough guideline for the work of your project is as follows:

- You should formulate the project (in consultation with Dr. Oh if necessary).

- You should read the relevant literature and finalize your plans about what to do (by November 12, you should send to Dr. Oh a title and abstract of what you plan to study and accomplish in your project).

- You should spend a fair amount of time performing the relevant tasks.

- You should also collect your results in the relevant writeup. You need to include enough detail so that people can understand it.