Course Project Description

In this course, you are being asked to complete one course project. This handout details the information you need to complete the project successfully.

Project Timeline: The project will be completed in stages, and the following schedule details when these stages must be completed. **Team Selection and Abstract Submission:** Friday, September 28. **Project Proposal:** Friday, October **26**. **Progress Check:** between Friday, November 12 and Friday, November 16. **Project Due Date:** Wednesday, December 5.

Project Teams and Abstracts: (10 pts) The project will be done in two-member teams. You are allowed to choose your own partner for the project and your partner may be from either section of the course. If you have difficulty finding a partner, please let us know before the Team Selection date. On Friday, September 28, turn in a type written sheet with your team members listed on it, a possible title for your project and a short abstract of the project topic. **The title and project can change!** However, we want you to be thinking about what area you might be interested in and explaining your early ideas.

Project Proposal: (25 pts) As mentioned in the syllabus, goals of the project include furthering your understanding of differential calculus in a manner specifically tailored to your interests as well as to advance your technical writing and communication skills. The project proposal is the first step in this process. The project proposal should include a title and be no less than one page typed and double spaced. It should outline your project idea as well as how you intend to complete the project (i.e. what steps will be necessary, and completed by when, roughly). Finally, it should summarize what you envision the final project presentation will consist of. You should have at least one reference. This proposal needs to be handed in no later than **Friday, October 26**.

Project Topics: Ideas for a project may include: investigating a scientific model of your own design, or from a published research paper or text, furthering the analysis of an idea we have discussed in class, completing a lengthy problem of your own choosing, designing a general module on a topic related to differential calculus, etc. You want to come up with an idea that is related to your interests (mathematical or otherwise)–the more interesting you find your topic, the easier it will be to complete the project successfully. Feel free to consult with me regarding your project ideas.

Progress Check: (15 pts) Between **Friday, November 9** and **Friday, November 16** each project team should meet with Professor Buckmire and let me know how the project is going. The meeting does not need to be long and can be during office hours. I want to see what work you have started and to give you feedback on the progress of your project.

Project Submission: (150 pts) The final project will be completed in two ways. There will be a written component as well as an oral component. The written component should consist of a formal write-up of the work you have done. The project aim should be clearly stated and explained; the mathematical work should be detailed sufficiently to allow the reader to follow but not overly so; the conclusions and evaluations of the project should be discussed. The length of these write-ups will vary between projects. However it is assumed that each team will need a minimum of 5 pages to explain the projects sufficiently. References and figures should be included (considered extra from the 5 page limit). The oral presentation will consist of a poster presentation on either **Monday December 3** or **Wednesday December 5**