Math 4610 Fundamentals of Computational Mathematics - Lecture 1.

The content for each lecture in Math 4610 will be presented in a lecture format that will follow an outline presented at the beginning of each class period. For the first lecture, the following list of items will be covered:

Content Items:
- **The Syllabus:** As in any college course, the syllabus in this course will provide students with an idea of what is expected. The syllabus in this course will cover instructor information, instructor comments and policies, grading information, and some information about university poliocies.
- **A Brief Introduction to Command Windows and Linux/Unix:** To be effective in Math 4610 you will need to be able to work in some command window environment. Many of the software applications we will use will require Linux/Unix emulation at a minimum. You are encouraged to install Cygwin on your computer if you have enough space. If you are running on a Linux machine there is no need to download and install Cygwin. Also, if you are using a Mac, the desktop system is already built on a Unix kernel. So, there are ready made ways to interact with Unix on a Mac/Appled. One such example is Homebrew.
- **Compiling and Running a Simple Code - Hello World:** As a simple example, how to compile and run a simple code in the C programming language will be presented. This will be related to the command window primer in the lecture.
- **Using Version Control Systems (VCS) - git:** A brief discussion of 'git' will be discussed in class to show how to work and collaborate with other students and your instructor.
- **Github and Homework:** You will need to create a student account on Github for this course. You will be required to build and maintain a software manual for the computer codes you will write. A specific format for your homework repository and the software manual will be discussed.
- **Wrap up and Questions:** If there is time and anyone has questions about the lecture, these will be addressed.