**EECS 448 - Lab 06**

You'll probably find it easiest if you use `http://github.com` for this project.

**Do the following:**

1. Split into teams of two or three. Choose a language for everyone in your team to use. Use something besides matlab and avoid libraries that make it unnecessary to implement the operations yourself. (eg if you were working in Python, you may use NumPy for the matrix datatype but you may not use functions in NumPy that can calculate matrix operations such as matrix multiplication or matrix addition).

2. You will be coding a piece of software that has the following features:

   - Read in two matrices, each from separate files. Use the CSV format to store the matrices on disk.
   - Identify if any of the CSV files you read in aren't actually matrices (eg the first 3 rows are 4 long, the last row is 3 long)
   - Before performing a calculation, be able to check if both matrices are of suitable dimensions for that operation.
   - Implement a matrix multiplication function.
   - Implement a matrix addition function.
   - Implement a matrix transpose function.

3. Use git to manage version control. Make regular commits as you get parts of the program working. In order to make sure you are woking with the most up-to-date version of your group's code, make sure you pull frequenty, too.

**Deliverable**:

PDF containing: each of your source code files, a screenshot of and a link to your git repository, screenshots of your program demonstrating each of the 3 operations. Use a 2x3 matrix and a 3x4 matrix for the matrix multiplcation. Use two 3x3 matrices for the matrix addition. Use a 2x3 matrix for the matrix transpose.

**Tip**:

Split the tasks up among your team members and write your functions in their own files. This will help prevent merging issues when you push and pull changes.

**Clarification**:

It is OK if you hardcode the filenames. But don't hardcode the matrices themselves into your program, instead, be sure that they are read from the files.