MATLAB Project Information

Math 313

So what is MATLAB?

MATLAB is a powerful piece of computational mathematics software. It is used heavily by people in many disciplines and businesses, not just by mathematicians. For our purposes, we will use MATLAB to explore a number of applications of linear algebra to economics, computer science, data management, and other topics. With MATLAB at our disposal, we can focus less on lengthy computations and instead see some really impressive real world applications which are too in-depth for a classroom setting.

Where can you get MATLAB?

MATLAB is freely available to students at the University of Arizona in two different ways. You can download the software through the University by visiting `http://softwarelicense.arizona.edu/mathworks-matlab`. Click the link for "Download for Students" and follow the on-screen instructions. You will need to log in with your NetID.

Alternatively, MATLAB is already loaded on many computers (both Mac and PC) in the campus libraries. Please check `http://www.library.arizona.edu/ic/ic-math.html` for a list of available locations. You can find MATLAB in the "Math, Science & Engr Software" folder. It may be in a subfolder dedicated to MathWorks (the publisher of MATLAB).

How does MATLAB fit into Math 313?

Over the course of the semester you will complete five assignments/tutorials using MATLAB. Each tutorial is designed to be relatively self-guided; explanations on how to use MATLAB are provided along the way (no prior knowledge of the program is assumed).

These tutorials will be heavily based upon the tutorials created for the mathematics department at the University of California, San Diego, which USCD has been kind enough to let us use for several years now. These tutorials have been trimmed and supplemented to better meet our needs.

What will you turn in?

As you proceed through each tutorial you will complete a number of Exercises. Your responses and work on these exercises need to be written up in Microsoft Word or a similar high level word processing program (for the truly ambitious, try using/learning LaTeX). You will then print out your document and submit that to your instructor.