

## Appendix A -- MATLAB©

### 1 Overview

MATLAB© is a commercial software package for data analysis, graphics and programming (<http://www.mathworks.com/>). MATLAB© has an assortment of built-in functions convenient for time series analysis. The graphics environment is conducive to illustrating time series techniques. MATLAB© is widely used as a main technical computing environment by several notable research institutions. Many user-written functions and toolboxes applicable to time series analysis are available free over the web.

The course assignments make use of built-in MATLAB© functions as well as functions and scripts written by the instructor. To do the course assignments you must have access to MATLAB© and four of its toolboxes. Faculty, staff and students at the University of Arizona (UA) have access to the software at no cost through a site-license (<https://sitelicense.arizona.edu/newnocost.shtml>). Other students taking the course must make their own arrangements to access MATLAB©, including the four required toolboxes. Possible options are: (1) purchase Student MATLAB© (<http://www.mathworks.com/academia/>), or (2) get access to the software through your university department.

I have developed and tested scripts and functions for the Spring 2009 class with MATLAB© Release 2007b. Make sure your version is at least as recent. The required toolboxes are:

- Statistics
- System identification
- Signal processing
- Spline

## **2 Make a working directory for the class files**

Put all your data, class scripts and user-written functions in a dedicated directory. For simplicity, name this directory “c:\geos585a\”. When you start MATLAB©, set “c:\geos585a\” as your working directory. Download and unzip the class scripts, functions and data to that same directory.

## **3 Using MATLAB©**

Although no MATLAB© programming is required for this course, you will need to run scripts and functions and be able to manipulate graphics windows. MATLAB© has an excellent help system. For a basic introduction, from the top menu in MATLAB©, click on

*Help*

*Product Help*

*Getting Started*