

Homework Guidelines

Working together. You are welcome to talk with others in the class about homework problems and receive some assistance. However, in the end you should write all of your own MATLAB code and solution writeups and make sure that you understand everything you have done. Copying someone else's m-files or output is considered a form of cheating.

Matlab code. For problems that ask you to write something in matlab, please turn in the matlab code as well as the output. The `diary` command may be useful.

Please be selective in what you print out and turn in. For example, if you have a long m-file and use several different versions with only a couple lines changed in order to solve a sequence of problems, you may want to print the whole file just once and then only print out the changed lines for later problems. Please organize and describe things well so that we can understand what changes you made and what you are turning in. Put comments into your matlab code to explain what you are doing.

When printing out numbers in matlab, use an appropriate format (e.g. `format long e` when necessary) to display all the relevant digits.

Analysis and description. Some problems also require writing some description of what you have done or analysis of how something behaved. You can hand write this on separate paper, add it by hand to your print-out, or type it into the same file as your diary. You might want to import the diary output into Word or some other software in order to write it more easily. Please write in complete sentences, use mathematical notation properly, write clearly, and organize things well, or you may lose points.

Plots. You may find it useful to incorporate plots into Word documents. This way you can put the matlab commands and plots on the same page, and also add discussion of your results. This also allows you to resize the plots so they take less space and you can fit several together on a page.

To do this, rather than sending the plot to the printer, you can create a file that contains the plot in a format that can be imported in Word. Once the plot you want is on the screen, type

```
>> print figurename -dpng
```

in MATLAB. This will create a file `figurename.png` in the `C:\Temp` directory. You should be able to import this file into Word (Insert → Picture → From File). Other graphics formats are also supported in MATLAB such as `eps` or `jpeg`. Type "`help print`" for more information.

Mathematical equations. In Word it is possible to write mathematical equations using the equation editor, but this is not very powerful or easy. You may want to write mathematical analysis by hand. Please write neatly and organize things well so that it can easily be understood by us.

Another possibility is to use `latex`, `PC-TeX`, or some other version of `TeX`, which is a much more powerful mathematical typesetting program that is used by most mathematicians. `PCTeX` can be found on the Programs menu in the AS Lab, and has an example to get you started.