

Course Survival and What to Expect in the Course

Some of you have programming experience, but for most students this course is a new experience. Here are some items to keep in mind to help you succeed in the course.

- The main goal of this course is for you to learn the fundamental elements of structured programming and logical, algorithmic thinking. Programming languages are much like spoken languages. Once you are familiar with one language, you can transfer that knowledge to new languages.
- We will only be able to address the basics of Matlab and Python, but the skills you develop will help you to use other software tools (such as Excel) in effective ways.
- A program is built using logic and simple programming structures. It is similar to a Lego set that uses a variety of block types. We need to see how the individual blocks work, then assemble these blocks into a larger program. This fact tends to make the first few weeks of the course seem somewhat disjointed.
- Although it has an unusual format, this course is essentially a math course and you should treat it like one.
- This course will require you to use math topics (such as trigonometry) that you have studied before, but might not have studied for some time.
- You should start assignments early so that you have enough time to get help with them if you are having problems with the material. Programming can be time consuming and a problem that seems simple can be more complex than it initially appears.
- If you are having problems with an assignment, you should avoid the temptation to immediately look online for a solution. In particular, if I am expecting an answer at the level of *Fun with Dick and Jane* and I get *Hamlet*, I am likely to suspect that you copied the answer from somewhere and ask you to explain your program line by line.
- Attend class regularly.
- Ask questions, either in class, in my office or by email.
- You can always email me your program if you are having problems with it.
- If you decide to email me the program, attach it to your email rather than paste it into the email body. Also, give me some indication of what the problem is (*i.e.*, tell me the error messages you are getting, *etc.*). Don't just say the program doesn't work.
- All course material (including programs written in class) will be posted on the course website. You should study these between class meetings. You should download and run the programs we write in class to gain insight into how they work.