

Course Outline Advanced Matlab (GE-4200)
Winter 2011-12, v. 2.2

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Office Hours: 10 to 11 am M & Th and 2 to 3 pm M, W & Th and by appointment (I recommend you use Outlook to request an appointment).
Textbook: None.
Prerequisites: Reasonable Matlab background
Course Room: R-200
Course Times: M & Th 9:00 to 9:50 and W 8:00 to 9:50 am
Final Exam: Tuesday, February 21, 8:00-10:00 am

Approximate Grade Weighting:

Homework	10%	(1 to 3 assignments expected)
Labs & Minor Projects	20%	(3 to 5 assignments expected)
Major Project	20%	(1 assignment expected)
Exams	30%	(2 exams, 15% each)
Comprehensive Final	20%	

Assignments:

You are allowed to collaborate with your classmates on assignments, but you are not allowed to copy their completed solutions (verbatim or otherwise). You are also not allowed to use any other prepared solutions from previous students or elsewhere. Violators will be turned in for academic dishonesty following the procedure outlined in the *Academic Dishonesty Procedure and Appeals Process* section of the student handbook. These forms can be downloaded from *my.msoe* and will be available from the instructor on request. Homework assignments will not be accepted without one of these forms.

Late Policy:

Late homework and projects will be penalized 10% if submitted within one day of the submission deadline and 10% per day thereafter up to a maximum of 50% penalty.

Attendance:

Attendance records will not normally be kept. You are responsible for *all* announcements made during class if you miss. You will receive zero points for in-class assignments if you are absent (whether excused or not). Make-up exams will only be given under extenuating circumstances and if pre-arranged.

Class Conduct:

I will treat you with respect and expect you to treat me and your classmates with respect. I do not forbid the use of laptops during class for note taking, but discourage their use for other activities (Facebook, shopping, etc.). I have found that students who distract themselves in class typically perform poorly on exams thus eliminating the need for any explicit penalties. Mobile phone use during class, including group activities, is strictly prohibited. Other disruptive activities are also prohibited. I'll warn you once and then ask you to leave the room.

Miscellaneous:

- If you stop attending class, I will not drop you from the course; it is your responsibility to do so.
- If you have questions about grading, please report them to me immediately. I will only adjust grades if I have marked yours inconsistently relative to the rest of the class.
- Exams will be closed book and notes. However, at least portions of exams will be open laptop.
- Supporting material for the course, including lecture slide decks, will generally be available online. Please let me know ASAP if you have any trouble finding this material. You can test it today by looking for this outline.
- Please bring your laptop to class each day. We will have many in class exercises.

Additional information, including a discussion of my break point approach to grading, is available at <http://people.msoe.edu/~tritt/policies.pdf>.

Tentative Course Outline:

Week	Day	Topic
1	1	Introduction and Review
	2	Debugging tips, Review & advanced I/O & Advanced data types
	3	Variable argument Lists (Project 0 Due)
2	1	Structures & Dealing with errors – <i>try-catch</i> blocks (Project 1 Due)
	2	Variable argument lists & Try-catch blocks
	3	Graphic Handles
3	1	Function Handles & Function Functions (Project 2 Due)
	2	Review, Function handles, Function functions & Graphics handles. Generating Random Numbers.
	3	Exam 1 – Review & new material
Holiday Break		
4	1	Random Numbers
	2	Standalone (Compiled) Applications. Random Numbers and Compiler Lab.
	3	Standalone (Compiled) Applications
5	1	Graphical user interfaces (GUIs)
	2	Graphical user interfaces (GUIs) Lab
	3	Graphical user interfaces (GUIs)
6	1	Graphical user interfaces (GUIs)
	2	Graphical user interfaces (GUIs) Lab – Cancelled due to Faculty computer failure.
	3	Graphical user interfaces (GUIs)
7	1	Images & Image Processing
	2	Image and Graphical user interfaces (GUIs) Lab,
	3	Timers and Dealing with Real Time
8	1	Review for Exam 2 & Final Project Assigned.
	2	Exam 2 – Graphical user interfaces (GUIs)
	3	Serial communications and Arduino
9	1	Serial communications and Arduino
	2	Serial Communications Lab
	3	Serial communications and Arduino
10	1	Classes & object oriented programming (OOP).
	2	Classes & Objects Lab. Major Project Due.
	3	Classes & object oriented programming (OOP)
11		Final Comprehensive Exam

