Fall 2025 80512 Math 2370.001 Intro. to Programming with MATLAB M/W 4:00pm-5:15pm SCI 2.230

Instructor Information
Instructor: Dr. Bentley Garrett
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Office hours: MW 5:45-7:15pm, or by appointment

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Prerequisites: A score of 80% on ALEKS math placement exam or a grade of at least a C- in MATH 2312.

Course Description

Introduces the basic concepts of programming and problem solving using MATLAB. Topics include data types, data input/output, control structures, functions, scripts, debugging, data visualization techniques, symbolic computation, and basic algorithms. Programming projects related to mathematical and statistical applications and elementary numerical methods.

Learning Objectives/Outcomes

(1) Students will be able to formulate a problem description, namely a math/statistics problem, into code form
(2) Students will be able to apply both basic programming principles and higher-level functions to solve a problem
(3) Students will be able to present both their code and output in an appropriate manner

Required Textbooks and Materials

Text: *MATLAB: A Practical Introduction to Programming and Problem Solving,* 5th ed., by Stormy Attaway
eBook ISBN: 9780128163450

MATLAB software: If you do not already have one, you will need to set up a MATLAB license here:
https://www.mathworks.com/academia/tah-portal/university-of-texas-dallas-706581.html
This license will enable you to do two things:

1) You will be able to download the MATLAB software package on your own computer for free (instructions also given on the above website.)
2) Using your MATLAB license username/password, you will also be able to login to the website, https://grader.mathworks.com/ (MATLAB Grader) which will give you access to the course, **Math 2370 FL25**, where you will complete most, if not all, of your programming assignments. **An email with a link will soon be sent to you where you will access this MATLAB Grader course for the first time; for subsequent times, there will also be a link in the eLearning course, referenced below.**

Note:

- **In order to access the MATLAB Grader course, Math 2370 FL25, for the first time, you MUST use the link that will be emailed to you.**
- **You can use the MATLAB software package that you download (item 1 above) to practice on your programming assignments, if you wish, but most programs will ultimately be submitted on https://grader.mathworks.com/. You may be asked to complete some assignments in the MATLAB software package, but you will be notified whenever this is required.**
- **Also, submitted programs may be compared using software that detects similarities. You may help one another on the assignments, but the final submitted code should be yours and not a copy of another code (or a copy with only variable changes, etc.)**
- **Free access to MATLAB is also available in the campus computer labs: see https://oit.utdallas.edu/about/client-services/labs/ for details.)**

eLearning: http://elearning.utdallas.edu You must enter your NETID username and password to logon to eLearning. You will need to access the course: **MATH 2370.001 - Introduction to Programming with MATLAB – F25.** Here, you will find the syllabus, supplementary material, etc., as well as a record of your grades. Any messages/emails concerning the class will also appear as announcements on eLearning (and your UTD email account).

Calculators: On occasion, a scientific calculator will be needed on quizzes or exams. However, graphing calculators, programmable calculators, calculators with non-numeric displays, or any calculators that perform calculus or matrix operations are not allowed on quizzes or exams.

Suggested Course Materials/Additional Resources

1) *Mastering MATLAB*, by Hanselman and Littlefield. Publisher: Prentice Hall, Inc.
2) *Essentials of MATLAB Programming* by Chapman. Publisher: Thomson.

Assignments & Academic Calendar (Tentative schedule is below, subject to change.

Week	M		W	
1	8/25	Introduction, 1.1,1.2	8/27	1.2,1.3,1.4 Post HW1
2	9/1	**Labor Day**	9/3	1.4,1.5,1.6
3	9/8	1.6,1.8,2.1	9/10	2.1,2.2 HW1 due, Post HW2
4	9/15	2.3,2.5	9/17	2.5,3.1,3.2 HW2 due, Post HW3
5	9/22	3.2,3.3	9/24	3.4,3.5,3.6,9.1 HW3 due, Post HW4
6	9/29	3.7,3.8	10/1	4.1,4.2,4.3 HW4 due, Post HW5
7	10/6	**TBD**	10/8	**Exam 1**
8	10/13	4.3,5.1	10/15	5.1 HW5 due Post HW6
9	10/20	5.1, 5.2	10/22	5.2,5.3 HW6 due, Post HW7
10	10/27	5.3	10/29	5.3,5.4 HW7 due, Post HW8
11	11/3	5.4,6.1,6.2,10.2	11/5	10.2,10.3,10.4,10.5 HW8 due, Post HW9
12	11/10	**TBD**	11/12	**Exam 2**
13	11/17	6.5	11/19	6.5, 14.5, 14.3 HW9 due, Post HW10
14	11/24	**Thanksgiving Break**	11/26	**Thanksgiving Break**
15	12/1	14.3	12/3	14.7 HW10 due, Post HW11 and optional HW12
16	12/8	14.7, **TBD**		
		Final Exam Time/Place TBD HW11 due and optional HW12 (due TBD)		

Please double-check these withdrawal dates on https://www.utdallas.edu/academics/calendar/:

8/25-9/10	Students may withdraw from a class without record.
9/11-11/10	Students may withdraw from a class with signatures and receive a W.
11/11–EOT	Students may withdraw from a class for non-academic reasons only.

Homework Assignments

Every week or two, a programming assignment will be posted in MATLAB Grader (see academic calendar above). The programming assignments are set up so that you can rerun the programs until a selected set of test variables are correct. These are the variables that will be graded by MATLAB Grader. You can rerun and retest your programs as many times as you like before the indicated deadline. You can also submit your work multiple times if you want to see your current score. The final scores on the problems will be averaged to compute the score for each assignment.

In a given MATLAB Grader assignment, there may be a problem for which you will need to submit a hardcopy on the due date. Details about how to submit a hardcopy will be provided within each MATLAB Grader assignment.

The two (2) lowest grades from the MATLAB Grader assignments will be dropped **(except for HW11)** and the remaining grades will be averaged to compute the 20% homework average referenced below; also, independently, the two (2) lowest grades from the hardcopy submissions will be dropped **(except for HW11)**, and the remaining grades will be averaged to compute the 10% homework average referenced below. There may be an additional, optional, 12th assignment later in the term. In this case, the lowest 3 assignments would be dropped (**except for HW11**). Late HW will NOT be accepted – this is one reason why dropped HW's are allowed for each category.

Grading Policy

HW Average Submitted in MATLAB Grader	20%
HW Average Submitted in hardcopy	10%
Exam 1 and Exam 2, combined	40%
Final Exam	30%

Note: the lower score of Exam 1 and Exam 2 will be weighted 15%, and the higher will be weighted 25%, for a total of 40%

Grade Scale [96.6,100]…A+ [93.3,96.6).….A [90,93.3).….A-
[86.6,90)…..B+ [83.3,86.6)…..B [80,83.3).….B-
[76.6,80).….C+ [73.3,76.6).….C [70,73.3),….C-
[66.6,70).….D+ [63.3,66.6).….D [60,63.3).….D-
[0 ,60)…...F

Course & Instructor Policies

(a) Attendance may be taken.
(b) You will be notified of the due dates when the assignments are given. Late HW will NOT be accepted – just submit what you have completed on the due date.
(c) Any programs must be well-documented - you must be able to explain your code.
(d) You must provide hard copies whenever requested in the problem instructions in MATLAB Grader.
(e) There will be no make-up exams.
(f) Exams are closed book and with only scientific calculators.
(g) SHOW ALL WORK on exams and assignments. Unsupported answers are considered miracles and, while inspirational, will receive little or no credit. Midterm exams and assignments will be returned to you as soon as possible. Any document not picked up by the end of finals week will be destroyed.
(h) Final exams are not returned to the student but are held for review for one year.
(i) It is essential that you attend all lectures to be successful in this class.
(j) There will be **no** extra credit

Academic Conduct:
Academic dishonesty is taken very seriously and will not be tolerated in this class in any form. Academic misconduct includes willfully cheating on or giving aid during an exam or copying homework assignments (from the web, from each other, or from a solutions manual). Blatant copying on an exam, homework assignment, or computer assignment may result in a grade of zero for that work. You are encouraged to discuss the homework assignments with other students in the class. However, it is expected that the homework you submit for grading will be written up by you alone (this includes computer programs which must not be duplicates of programs other students turn in). Further information on the academic conduct policy can be found at http://www.utdallas.edu/deanofstudents/dishonesty/

Citizenship:
Any action that disturbs your classmates or interrupts the lecture is unacceptable. Examples of such actions are:
(a) Entering the classroom late - be as punctual as possible.
(b) Leaving the classroom before break or before the end of lecture.
(c) Cell phones, ringers, buzzers, beepers, alarms, raspberries, blackberries - turn them off! - unless you are a member of an emergency response team.
(d) Student participation in class is desired, however, please raise your hand to speak and avoid having side conversations with your classmates.

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same: "As a Comet, I pledge honesty, integrity, and service in all that I do."

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus. Please go to http://go.utdallas.edu/syllabus-policies for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.