MEEN 2240-001 Programming for Mechanical Engineering

Fall 2025 (Aug 18th – Dec 12th)

Instructor: Dr. Yunwei Xu

Email: Yunwei.xu@unt.edu

Office: F101F @ UNT Discovery Park Class Schedule: $T/Th \ 1:00 - 2:20 \ PM \ @ B140$

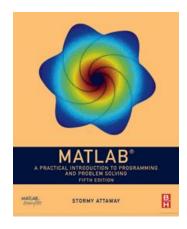
Office Hours: T/Th 2:30 - 3:30 PM or Make Appointment via Email

Required Textbook:

MATLAB – A Practical Introduction to Programming and Problem Solving, 5th Edition

Stormy Attaway

ISBN-13: 978-0128154793



Catalog Course Description:

Programming for Mechanical Engineers. 3 credits. This course is designed to introduce engineering students to problem solving, algorithm development and programming in MATLAB and Simulink. Examples of applications in mechanical engineering will be given.

Prerequisite(s): MEEN 1000, MATH 2700 (corequisite).

Course Learning Outcomes (CLO):

Upon successful completion of this course, students will be able to:

- 1. Demonstrate ability to create and manipulate vectors and matrices in MATLAB.
- 2. Demonstrate ability to create and utilize MATLAB scripts.
- 3. Demonstrate ability to understand and utilize logical statements and looping techniques.
- 4. Demonstrate ability to create and use data structures, file I/O (input/output) functions
- 5. Demonstrate ability to utilize plotting techniques to create useful plots.

Disability Policy:

All reasonable accommodations will be made to facilitate special needs. If special accommodations are required, the student must first meet with the staff of the Office of Disability Accommodation (ODA), (940) 565-4323. After meeting with that office, please contact me to discuss what accommodations will be necessary.

For more information, see http://www.unt.edu/oda.

Homework/Quizzes:

- 1. "Homework Day": THURSDAY. The day new homework will be assigned (HW assignment will be posted in Canvas), and previous homework will be collected through Canvas.
- 2. Homework should be turned in before the deadline (11:30pm) through canvas. NO late homework will be collected, accepted, or graded. (Canvas window will be automatically closed)
- 3. Exceptions: refer to UNT Policies 06.039
 - An absence may be excused for the following reasons: religious holy day, including travel for that purpose; active military service, including travel for that purpose; participation in an official university function; illness or other extenuating circumstances; pregnancy and parenting under Title IX; and when the University is officially closed.

Procedure: Please request accommodations/exceptions through UNT "Dean of Students Office"

- 4. Pop-up quizzes, consisting of one of the exact homework problems, in-class examples, or one very similar, will be randomly given in class. Grades from pop-up quizzes will be regarded as extra credits to your final grade.
- 5. There will be 4 quizzes. The lowest quiz grade will be dropped. Make-up quizzes are only allowed for documented University-excused absences and the instructor must be notified prior to the missed quiz.
- 6. Quiz dates: 9/4, 9/23, 10/23, 11/18
- 7. Two projects will be assigned during the semester.

Exams:

- 1. **Exam 1: 10/9**
- 2. Exam 2: 12/4
- 3. The exams may be open book.
- 4. Make-up homework, quizzes, exams, and projects will only be given for university-excused absences. The instructor must be notified about the absence prior to the due dates. Students must provide the Dean of Students, as well as the instructor with official and verifiable documentation related to the reason for absence. Once the absences have been verified, the decision to allow a student to make up course work is left to the discretion of the professor and/or the department (according to the UNT policy).

Grade Evaluation:

Attendance:	5%
Homework:	10%
Quizzes (best 3 out of 4)	25%
Exam 1	15%
Exam 2	15%
Project 1	10%
Project 2	20%

A - 90-100%

B - 80-89%

C - 70-79%

D-60-69%

F - < 60%

There will be NO curve on the final grade. For example, 90% must be obtained to get an A; an 89.99 will be a B. Grades are based solely on your performance on the quizzes and exams. A student's perceived effort is not considered.

It should be noted that extra credit will not be given at the end of the semester for individual students. Please do not request extra work at the end of the semester to boost your grade – the answer will always be no. It would be unfair to the rest of the students in the class if select individuals were given a chance to earn more points. Quizzes and exams are made to be fair and allow everyone the opportunity to do well in the course if a student prepares for them appropriately.

Re-grades:

Any requests for exam or quiz re-grades must be made the day the quiz/exam is returned. Once class is over, regrade requests will not be accepted. It should be noted that the entire quiz/exam will be re-graded. This may result in a score lower than what was originally assigned.

Academic Dishonesty/Turnitin:

Students are expected to do their own work on homework and exams. If it is determined that a student is talking during an exam, copying off other students' papers, sharing papers etc., a score of zero will be given for that assignment. There are no exceptions to this rule.

All assignments will be submitted to Turnitin to check for copying. Turnitin compares submissions to online solutions manuals, previously submitted documents and to newly submitted documents. If there is more than an 85% similarity found with your submission and another source, you will receive a zero for the entire assignment.

Procedure on Quiz/Exam Days:

On quiz/exam days:

- Come prepared and ready to begin at the scheduled time. If you arrive late, your time will not be adjusted.
- Seats may be randomly assigned by the instructor
- All phones, tablets, other electronic devices must be placed in a bag
- All bags must be placed at the front or back of the room
- Students will only be allowed to bring in calculators and pencils for the exams. I will provide equation sheets, tables, and scratch paper.
- <u>Students will not be allowed to leave the room during exams and quizzes.</u> Exams/quizzes will be collected and considered finished if a student leaves the room.
- Using ANY unauthorized/unapproved materials during the exam is prohibited and considered as cheating.
- Exchanging (either borrowing or giving) ANYTHING without the approval from the proctor, including but not limited to, calculators/scratch papers/formula sheets/ thermodynamics tables/writing tools during the exam between/among students is prohibited and considered as cheating.
- Using cell PHONE for WHATEVER purpose during the exam is prohibited and considered as cheating.
- Using Internet through any device during the exam is prohibited and considered as cheating.
- Peeking, talking, or discussing (either by oral/written/sign language) between/among students during the exam is prohibited and considered as cheating.
- Using any type of earpiece/earbuds/earphone/Bluetooth/Stereo Headset (except with doctor's prescription/notes) during the exam is prohibited and considered as cheating.
- Using any type of smart glasses (except with doctor's prescription/notes) during the exam is prohibited and

considered as cheating.

- Using any type of smart watches during the exam is prohibited and considered as cheating.
- Cheating will result in SCORE ZERO in the exam
- Cheating will be reported to the Department, College, and University
- There will be NO make-up exam. Exceptions: medical emergence (student and important ones), transportation/traffic emergency; religious holidays/duty, jury duty, and military duty. Documentary evidence must be submitted.
- Makeup exam should be scheduled within one week after the regular exam date.

Professionalism:

One of the goals of this course is to teach students about professionalism, including the standards and expected behavior of your chosen profession. Students are expected to demonstrate a behavior consistent with the conduct of an individual practicing in the engineering profession. Students are expected to: (1) come prepared for class; (2) respect faculty and peers; (3) demonstrate responsibility and accountability for your own actions; (4) sensitivity and appreciation for diverse cultures, backgrounds, and life experiences; (5) offer and accepts constructive criticism in a productive manner; (6) demonstrate an attitude that fosters professional behavior among peers and faculty; (7) be punctual to class meetings; (8) maintain a good work ethic and integrity; and (9) recognize the classroom as a professional workplace.

MEEN department Program Educational Objectives

The educational objectives of the Mechanical & Energy Engineering program are to produce graduates who will:

- Graduates are successfully employed in mechanical and/or energy engineering positions and other related fields.
- Graduates engage in lifelong learning demonstrated by advanced education, professional development activities and/or other career-appropriate options.
- Graduates are prepared to successfully demonstrate technical and leadership competence through ethical conduct, teaming, communication, and/or problem-solving skills learned in our program.

Classroom Inclusivity Statement:

I consider this classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming, and inclusive environment for every other member of the class.

Use of Solutions Manuals/online resources like Chegg:

It is common knowledge that solutions manuals to all widely used textbooks are available online. I realize that students like to utilize these resources but please use them in the correct way. Simply copying what is in the solutions manual is not beneficial to you, in fact, it is detrimental to your grade. To use these resources properly you should attempt all problems on your own. If you get stuck, work on it some more. You should only go to the provided solutions once you have obtained a solution of your own. You can then check your work and find your mistakes. Once you have found the mistakes, you should figure out why you made those errors and then learn how to fix them. Your goal in doing the practice problems is to learn how to apply the material learned in class to a variety of problems. The only way to do this is to work through problems on your own.

Calculators:

All students will need their own calculator on quiz/exam days. You will not be allowed to share a calculator with another student under any circumstance. Graphing calculator will not be allowed during quizzes and exams.

Only NCEES-approved calculators can be used (http://ncees.org/exams/calculator/)

Acceptable calculators are:

Casio: All fx-115 and fx-991 models (Any Casio calculator must have "fx-115" or "fx-991" in its model name.)

Hewlett Packard: The HP 33s and HP 35s models, but no others

Texas Instruments: All TI-30X and TI-36X models (Any Texas Instruments calculator must have "TI-30X" or "TI-36X" in its model name.)

Important event: (class will be canceled)

UNT Official Academic Calendar: Fall 2025

Date	Event
Aug 18, 2025	First Class Day (Monday)
Sep 1, 2025	Labor Day (Monday)
Nov 24 - 30, 2025	Thanksgiving Break (no classes)
Dec 3 - 4, 2025	Pre-finals Days
Dec 4, 2025	Last Class Day
Dec 5, 2025	Reading Day (no classes)
Dec 6 - 12, 2025	Final Exams