

**Monroe Community College**  
**Engineering Science and Physics Department**

**ENR 261: MATLAB Programming - Spring 2024**

**Professor:**

Geoff Berl

[gberl001@monroecc.edu](mailto:gberl001@monroecc.edu)

(585) 502-8484

**Office Hours**

I am available after each class. Otherwise, please contact me ahead of time to schedule an appointment.

Additionally, feel free to contact me via email regarding any private questions. However, if your question would benefit others in the class, please ask on the "Discussions" forum for others to see <https://github.com/gberl001/SP24-ENR261-180/discussions>. I would also recommend you click the "Watch" button in the upper right of the repository page to receive notifications of any questions others are asking.

**Course Information**

*Credits:* 3

Prerequisites/Corequisites: MTH 211; ENR 161 with a grade of C or better, or CSC 101

**Course Objectives**

- Apply structured programming techniques to develop software solutions to various engineering problems.
- Differentiate between numerical and symbolic problem solutions.
- Utilize a visual programming environment to create dynamic models of engineering systems.
- Apply knowledge learned throughout the course to complete a final project consisting of a simulated real-world problem.

**Course Materials**

**Required Software**

MATLAB R2016 or later

- Provided on MCC engineering department computers
- Student licenses available at student's expense
  - \$50 for basic MATLAB (will get you through week 10)
  - \$100 for MATLAB with Simulink (Simulink is used in week 11)

**Optional Software**

Octave (Free MATLAB-like software), please read the bullets

- If using Octave you must still ensure your program runs on MATLAB, if a submission fails due to a difference between MATLAB and Octave, it will be considered a script that “does not run”.
- Octave will only get you through Week 8 material. The remaining weeks will require MATLAB.

### **Required Materials**

Essential MATLAB for Engineers and Scientists, 7th Edition\*, Hahn and Valentine, Elsevier Publications.

ISBN 9780081029978

*\*Actual version may change depending on availability to the students.*

### **Recommended Materials**

A USB memory stick. All of your coursework **must** be saved in your GitHub repository on [www.github.com](http://www.github.com). However, the repository can be "cloned," and carrying it around on a flash drive will allow you to work on it on any computer much more easily.

## Communication and Etiquette

### **Communication**

Instructor emails will be sent to your MCC email account. Students must check this account daily. When emailing your instructor, please use only your MCC student email account.

### **Attendance and Participation**

- Students are responsible for all assignments and material covered in class, **even if they are absent**.
- Students must contact the instructor before or during the day they are absent to receive the assignment due when they return to class.
- Absence from class or lab is not a valid excuse for not handing in an assignment on time. Assignments are submitted via GitHub, which provides a means to submit homework anywhere there is internet access. There will generally be a lecture, or quiz every class period, so make sure to attend all classes.

### **Classroom Conduct**

- Students must use a laptop or a class computer to perform in-class exercises. Lecture time is not the time for checking social media, playing games, browsing, or doing other school work. Students are expected to pay attention and only use computers for class-related activities.
- **The use of recreational electronic devices is prohibited in the classroom.** Devices should be turned off or silenced during class except in emergency situations when the instructor has given the student permission to keep the device on.
- No open food or beverage containers are allowed near the class computer equipment.

## Primary Assignments, Grade Distribution, and Grading Policies

### **Grade Distribution**

|                          |     |
|--------------------------|-----|
| Homework and Class Work* | 40% |
|--------------------------|-----|

|                    |     |
|--------------------|-----|
| Quizzes*           | 40% |
| Final Exam/Project | 20% |

*\*The lowest quiz and homework grade will be replaced with the final project grade if this benefits the student.*

### Grade Scale:

|    |             |               |    |             |                 |
|----|-------------|---------------|----|-------------|-----------------|
| A  | $\geq 93\%$ | Excellent     | C  | $\geq 70\%$ | Average         |
| A- | $\geq 90\%$ |               | C- | $\geq 67\%$ |                 |
| B+ | $\geq 85\%$ |               | D+ | $\geq 64\%$ |                 |
| B  | $\geq 80\%$ | Above Average | D  | $\geq 60\%$ | Below Average   |
| B- | $\geq 77\%$ |               | D- | $\geq 57\%$ | Minimum Passing |
| C+ | $\geq 74\%$ |               | F  | $\leq 57\%$ | Failure         |

### Homework and Classwork

- Homework problems are graded on a point system that varies depending on the assignment. The assignment is broken into multiple requirements, each requirement is given a point value based on its importance regarding the weeks' learning objective and the complexity, or time involved in completing it. If you would like to see an example rubric for a particular assignment, please let the instructor know. A homework assignment grade follows this general rubric.
 

|   |       |
|---|-------|
| No errors or omissions =                | 100   |
| Contains a minor error or omission =    | 90-99 |
| Contains a major error(s) or omission = | 50-89 |
| Incomplete =                            | 1-49  |
| Unsatisfactory or "Does not run" =      | 0     |
- Programs that do not run (resulting in a red text error in the MATLAB command window) will be marked as "Does not run" and will receive a zero. All submissions should be run by the student on MATLAB to ensure they will run without error.
- No late homework will be accepted.
  - Homework is graded using a "snapshot" of the GitHub repository material as of 11:59 PM the day the assignment is due. The instructor will not see any homework files or changes submitted after that time and, therefore, will not be included in the grade for that assignment.
- The final project grade will automatically replace the lowest homework and quiz grade if it benefits the student. You can see this automatic calculation reflected in the grading sheet in your GitHub repository.
- Students may consult with other students in completing homework assignments as long as all students do their own work. Copying another student's file or files and submitting them as your own work will be considered plagiarism. **Students helping each other may not submit a single homework assignment to count for both students.**
- Students must list the names of every individual who helped them complete an assignment. Your program header should have an "Assisted by:" field where assistants shall be named. Failure to do this will be considered plagiarism and may result in a penalty for your grade.**

- The purpose of homework assignments is to gain technical expertise and to demonstrate the ability to meet strict deadlines. Be warned that computers can be unpredictable, so you should never count on everything working perfectly. Disks may become unreadable, computers may crash, or you may not have access to a computer when you need it. Unless the GitHub website goes down, there should be no reason not to have access to your work. You will also have a local repository that allows you to work offline. When working offline, dates and times of commits are recorded so even if it isn't pushed to your repository until after the deadline, as long as the commit took place before the deadline, it is considered submitted on-time. It is, therefore, essential for you to get started early on assignments so that **when (not if)** things go wrong, you will have time to compensate for them.
- Students are required to store their work in their GitHub repository. The instructor will access your GitHub repository to grade your work.

### Quizzes

- Students will work individually on all quizzes and may not use notes, books, or computers.
- **No make-up quizzes will be given unless adequate steps have been taken to notify the instructor of an absence ahead of time.** A make-up quiz will have different questions than the quiz taken at the scheduled time. Your final project grade will automatically replace the lowest grade for a quiz.
- Quiz material will cover previous lecture material and the homework assignment material due before the day of the quiz. Generally, the quizzes are 5-10 simple questions you should be able to answer without studying, assuming you've completed homework assignments. Your instructor will review any material on the quiz that might be a difficult or tricky question. Students are given 20 minutes to take the quiz. Quizzes are taken at the end of class on the scheduled quiz day.

### Final Project

- Students will work individually on the final project.
- The instructor will outline the topics to be covered in the project toward the end of the course when the project is assigned.
- **No make-up projects will be given except in extreme cases, and if the student follows all regulations outlined in the college catalog regarding final exams.**

### Student Support

Here is a link to an [overview of programs and services offered at MCC](#). Specific information on each of these supports can be found on the MCC website in the A-Z Index, on our MyMCC portal, or by contacting our one-stop Trib411 information service at 585-292-2411 or [trib411@monroecc.edu](mailto:trib411@monroecc.edu).

### Academic Support

- MCC has many services and support to help you be successful. Here is a link to [academic resources](#) and a few important sites:
- The MCC Learning Centers [if applicable, include information on the MCC Learning Centers most relevant to this particular course.]

- [Tutoring and Academic Assistance Center](#) (TAAC) at Brighton, room 11-106 (585-292-3396); at the Downtown Campus, 4th floor (585-685-6005)
- [The MCC Library](#) at Brighton, 2nd floor of building 2 (585-292-2303); at the Downtown Campus, 4th floor (585-685-6005) [If your course has a research component, you may want to include a statement like the following: “The MCC Library can help with your research in this class. MCC's librarians can help you find and evaluate all types of information and resources including articles, books, websites, statistics, data, government documents, and more. For more information on hours and librarians, visit the library’s website.”]
- MCC is committed to upholding and maintaining all aspects of the Americans with Disabilities Act Amendment Act (ADAAA) and Section 504 of the Rehabilitation Act. If you are a student with a disability and wish to request accommodations, please contact the Office of Disability Services located in Building 3, Room 103 to schedule an appointment (585-292-2140) on the Brighton campus, or Room 310 (585-292-2140) on the Downtown campus, or visit the [Disability Services website](#). Please note that many accommodations require early planning, therefore requests should be made as early as possible.
- [CircleIn](#) is a free peer-to-peer studying app where students can participate by studying and collaborating remotely with each other.
- Know your rights as a student! Here is a link to the [Rights and Freedoms of Students](#) document. The Office of Student Rights & Responsibilities is located in building 1, room 300 (585-292-2023)

### Technical Support

- [Computers for academic use](#) are available on the Brighton and Downtown campuses: Brighton Electronic Learning Center (11-106), the Brighton Library (Building 2), and the Downtown Campus Learning Commons (Room 440). There are additional resources available at these locations such as internet, printing, and resources specific to your course.
- The [MCC Student Technology Help Desk](#): 585-292-8324 or email [technologyhelp@student.monroecc.edu](mailto:technologyhelp@student.monroecc.edu). Walk-up service is also available in Building 11, Room 106B on the Brighton Campus, or on the Downtown Campus in Room 440 by the Circulation Desk.
- [If your course has a significant online portion, you may want to add: “The Open SUNY Support Services HelpDesk is your primary resource for Brightspace technical support (link): 1-844-OPENSUNY (673-6786), or email [sunyonlinehelp@suny.edu](mailto:sunyonlinehelp@suny.edu). Contact your instructor for content- related support.”]

### Financial Support

- Financial aid is an important part of making sure college is affordable. Be sure to find out about all the financial aid sources available to you at MCC’s [Financial Aid webpage](#). Financial aid is located at Brighton in room 1-231 (585-292-2050) and room 310P at the Downtown Campus (585-685-6171).
- The entire extended MCC community is committed to your success. As part of this, numerous scholarships are available through the [Monroe Community College Foundation](#), a recognized

national leader in supporting student success financially. [Mention specific scholarships of interest to your students, such as those in your content area.]

- The MCC Foundation's Dreamkeepers is a program designed to help students stay in college when they are faced with an unforeseen financial emergency. Students can apply for both financial assistance and access to resources and services for expenses such as childcare, food, transportation, medical expenses, and rent. Find out more at the [Dreamkeepers website](#) or call student services (585-292-2121).
- Our [D.W.I.G.H.T. food pantry](#) stands for "Doing What Is Good and Healthy Together" and has food available for you at locations on the Brighton Campus (3-125), the Downtown Campus (Room 220), and in Canal Hall. Please call 585-292-2534 with any questions.

### **Personal Support**

- The [MCC Counseling Center](#) provides a professional and confidential setting for the psychological, emotional, and developmental support of students as they pursue academic goals and explore personal growth. At Brighton, the counseling center is located in 3-103 and at the Downtown Campus, room 310 (585-292-3847 for both locations).
- The [MCC Career Services Office](#) assists students in determining their career path and successfully accomplishing their employment goals. Career Services is located in 3-108 at the Brighton Campus (585-292-2248).
- MCC is a recognized national leader in the support of our veteran students and our [Veterans Services Office](#) has many supports available to military veterans, those still serving in the military, and military family and friends. Veteran Services is located in 1-108 at the Brighton Campus (585-292-2296).

### **MCC-Wide Policies**

- Please ensure you have read and acknowledged the College-wide policies found in the online student portal. These policies include information on:
- [MCC's Code of Conduct](#)
- [Academic honesty](#)
- [Attendance](#) and how it affects your [Financial Aid](#)
- [Notice of Non-discrimination](#)
- [Sexual and interpersonal violence resources and reporting](#) (Title IX)
- [Services for students with disabilities](#)
- [Labs & Learning Centers](#) (including the TAAC tutoring)
- Information on [Emergency Closing and signing up for text alerts](#)
- Current [class cancellations](#)
- [MCC's tobacco, smoke-free, and vape-free campus policy](#)
- Information for [military and veteran students](#)
- [Help with food insecurity](#) (DWIGHT)

### **Cancellations, Closings and Emergencies**

- For information on class cancellations, please visit our [class cancellation website](#)

- MCC's [Alert System](#) will let you know when the college is closed and in the event of other emergency situations
- Coronavirus-related Guidelines: Guidance for in-person classes continues to change and we urge teaching faculty to consult the [coronavirus webpage](#) for the most up-to-date information on requirements.