ME 1020: ENGINEERING PROGRAMMING WITH MATLAB

Instructor: Professor Scott K. Thomas, Ph.D., (937) 775-5142, Room 124 Russ Engineering Center
scott.thomas@wright.edu

Course Homepage: http://cecs.wright.edu/people/faculty/sthomas/matlab.html

Class Hours: T Th 2:00 p.m. to 3:20 p.m., Room 005 Student Success Center

Office Hours: T Th 3:30 p.m. to 4:30 p.m., Room 124 Russ Engineering Center

Text: W.J. Palm, *Introduction to MATLAB for Engineers*, McGraw-Hill.

Pre-Lecture Quizzes: It is expected that students will read and study the textbook prior to starting a new chapter. Pre-Lecture Quizzes will be given on the Pilot website, which are due prior to class as indicated in the Course Schedule below. Late quizzes will not be accepted by the Dropbox feature within Pilot <u>or by the instructor</u>. Go to Pilot/Assessment/Quizzes and Exams to take the quizzes.

Pilot Website: https://pilot.wright.edu/login.asp

Homework Assignments: Use the Homework Handouts for the Homework Assignments, which are due as indicated in the Course Schedule below. Each homework assignment will be submitted as a single PDF file using the Dropbox feature within Pilot. Late homework assignments will not be accepted by the Dropbox feature within Pilot <u>or by the instructor</u>.

Homework Handouts: http://cecs.wright.edu/people/faculty/sthomas/matlabhandouts.html

Homework Solutions: http://cecs.wright.edu/people/faculty/sthomas/matlabhomeworksolutions.html

In-Class Assignments: Students are encouraged to attend every class period. In-class assignments will reward students who attend and participate in class. Each in-class assignment will be submitted as a single PDF file using the Dropbox feature within Pilot at the end of the class period. Late in-class assignments will not be accepted by the Dropbox feature within Pilot <u>or by the instructor</u>.

Mid-Term Exams: Mid-term exams are scheduled as indicated in the Course Schedule below. Mid-term exams will not be rescheduled for any individual for any reason. If you miss an exam, the weight of that exam will be placed onto the final exam. If you take a mid-term exam, you can choose to not have it graded: Simply do not turn in the exam. If your exam is not turned in, the weight of that exam will be placed onto the final exam.

Final Exam: The final exam is scheduled as indicated in the Course Schedule below. The final exam will not be rescheduled for any individual for any reason. You cannot miss the final exam. If you miss the final exam, you will receive a FAILING GRADE for the class.

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Items that ARE allowed during exams:
- Bound textbook
- Calculator that does not have electronic communication capabilities
- Instructor-supplied paper
- Pencil
- Eraser
- MATLAB programming environment

Items that ARE NOT allowed during exams:
- Cell phones or other electronic communication devices or methods
- The electronic version of the book
- Photocopies of the bound textbook
- Print-outs of the electronic version of the book
- Extra sheets of paper of any kind

Student Conduct During Exams:

- If you have a cellphone or other electronic communication device out during a mid-term exam, you will receive a ZERO FOR THE MID-TERM EXAM.
- If you decide to share your work with someone else during a mid-term exam, BOTH PEOPLE WILL RECEIVE ZEROES FOR THE MID-TERM EXAM.
- If you have a cellphone or other electronic communication device out during the final exam, YOU WILL RECEIVE A FAILING GRADE FOR THE CLASS.
- If you decide to share your work with someone else during the final exam, BOTH PEOPLE WILL RECEIVE A FAILING GRADE FOR THE CLASS.

Each type of incident outlined above will be referred to the Office of Community Standards and Student Conduct as a case of academic dishonesty.

Academic Integrity Standards:

http://www.wright.edu/community-standards-and-student-conduct/code-of-student-conduct/academic-integrity

Course Grade: 5% Pre-Lecture Quizzes, 5% In-Class Assignments, 10% Problem Sets, 60% Mid-Term Exams, 20% Final Exam.

A: 100 to 90, **B:** 89 to 80, **C:** 79 to 70, **D:** 69 to 60, **F:** < 60

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Course Schedule:

Class Period	Date	Subject	Chapter	Pre-Lecture Quiz Due Date	Homework Due Date
1	1/14	Overview of MATLAB	1	Chapter 1	
2	1/16	Overview of MATLAB	1		
3	1/21	Numeric, Cell and Structure Arrays	2	Chapter 2	Chapter 1
4	1/23	Numeric, Cell and Structure Arrays	2		
5	1/28	Functions and Files	3	Chapter 3	Chapter 2
6	1/30	Functions and Files	3		
7	2/4	**Mid-Term Exam 1**	**1,2,3**		Chapter 3
8	2/6	Programming with MATLAB	4a	Chapter 4	
9	2/11	Programming with MATLAB	4a		
10	2/13	Programming with MATLAB	4b		Chapter 4a
11	2/18	Programming with MATLAB	4b		
12	2/20	Advanced Plotting	5	Chapter 5	Chapter 4b
13	2/25	Advanced Plotting	5		
14	2/27	**Mid-Term Exam 2**	**4,5**		Chapter 5
15	3/3	**Spring Break: University Closed**			
16	3/5	**Spring Break: University Closed**			
17	3/10	Model Building and Regression	6	Chapter 6	
18	3/12	**COVID-19 Break**			
19	3/17	Model Building and Regression	6		
20	3/19	Statistics, Probability, and Interpolation	7	Chapter 7	Chapter 6
21	3/24	Statistics, Probability, and Interpolation	7		
22	3/26	Linear Algebraic Equations	8	Chapter 8	Chapter 7
23	3/31	Linear Algebraic Equations	8		
24	4/2	**Mid-Term Exam 3**	**6,7,8**		Chapter 8
25	4/7	Numerical Methods for Calc and Diff Eqns	9a	Chapter 9	
26	4/9	Numerical Methods for Calc and Diff Eqns	9a		
27	4/14	Numerical Methods for Calc and Diff Eqns	9b		Chapter 9a
28	4/16	Numerical Methods for Calc and Diff Eqns	9b		
29	4/21	Numerical Methods for Calc and Diff Eqns	9c		Chapter 9b
30	4/23	Numerical Methods for Calc and Diff Eqns	9c		
31	4/30	**Final Exam: 2:45 p.m. to 4:45 p.m.**	**ALL**		Chapter 9c