

The Counseling Center at A&M-Commerce, located in the Halladay Building, Room 203, offers counseling services, educational programming, and connection to community resources for students. Students have 24/7 access to the Counseling Center's crisis assessment services by calling 903-886-5145. For more information regarding Counseling Center events and confidential services, please visit [www.tamuc.edu/counsel](http://www.tamuc.edu/counsel)



## ENGR 2304 Computing for Engineers, Section 4

3 Credit Hours

COURSE SYLLABUS: Fall 2024

### INSTRUCTOR INFORMATION

**Instructor:** Redha M. Radaydeh, PhD

Electrical Engineering

Department of Engineering and Technology

**Office Location:** AGET 208

**Office Hours:** Tuesday & Thursday 11:30-12:30 pm, 1:45-2:30, 4:30-5:00 pm or with appointment. Virtual meetings can be also scheduled.

**Office Phone:** 903-886-5471

**Office Fax:** 903-886-5960

**University Email Address:** [Redha.Radaydeh@tamuc.edu](mailto:Redha.Radaydeh@tamuc.edu)

**Preferred Form of Communication:** email.

**Communication Response Time:** within 24 hours (weekdays) to email.

### COURSE INFORMATION

**Class Meeting Schedule:** Meets 8/26/2022 through 12/13/2022.

**Class Meeting Dates:** Weekly meetings; Wednesday 4:20-6:50 pm. **Classroom:** AGET 214. Lectures will be given on campus.

**Course Format:** This course contains lecture sessions.

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## **Materials – Textbooks, Readings, Supplementary Readings**

### **Textbook**

- Engineering with Excel, Ronald W. Larsen, 5<sup>th</sup> Edition, Pearson (ISBN 0132788659)

### **Software Required**

MS Excel, MATLAB, Python

## **Course Description**

This course introduces students to the use of computational tools to solve engineering problems. Topics include: problem identification and formulation, computational programming techniques, data transformation and visualization, effective plotting, regression analysis, interpretation of results, team collaboration, and introductory machine learning. Students will solve problems using modern computational tools such as MATLAB, Python, or Excel.

**Prerequisite:** Lvl U MATH 2413 Min Grade C.

## **Student Learning Outcomes**

Upon satisfactory completion of the course, the student shall be able to:

- Develop basic problem solving skills
- Develop experience in identifying and formulating a solution to an engineering problem using a software tool
- Produce effective plot of numerical data using Excel, MATLAB, and Python
- Apply MATLAB, Python and Excel software skills to mathematical and engineering problems.
- Implement the computing techniques chosen to solve engineering problems.
- Use appropriate software tools in MATLAB, Excel and Python for solving engineering problems.
- Write programs in MATLAB and Python to solve and analyze basic engineering problems.
- Utilize spreadsheet tools to enhance engineering problem solving skills.

## **COURSE REQUIREMENTS**

### **Assessments**

Students' learning will be assessed via assignments, quizzes, and exams. Specific format and requirements of each assessment will be provided when it is posted on the course webpage at D2L Brightspace.

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Tentative days for the assessments can be found on the course calendar at the end of this syllabus. Specific posting days, and due dates of assessments will be announced by the instructor in advance.

### Minimal Technical Skills Needed

Basic knowledge and skills using MS Word, Excel, and basic knowledge of programming skills.

### Grading

#### Point Distribution

Assessment Type	%
Homework	30
Quizzes	30
Midterm Exam	20
Final Exam	20
<b>Total</b>	<b>100</b>

Based on the points received, the grades will be determined according to the criteria below.

#### Grade Criteria

A	B	C	D	F
100 - 90	89 - 80	79 - 70	69 - 60	59 - 0

- Late assignments will be deducted **20%** for **within 1-day lateness**, but will not be accepted after **24 hours** of lateness unless the student has a valid excuse granted prior to the due date (before the due date has passed).
- A make-up exam or quiz is allowed only if the student informs the instructor before the exam due date and provides a doctor's note with an acceptable health excuse. Family emergencies are not accepted as a reason for make-up exams.
- Participation and attendance: No point deduction up to 2 absences. Any absence above 2, will cause deductions in this grade category. Repeated lateness to the class sessions also causes deductions.
- Any student who has more than 7 unexcused absences will receive an "F" from this course. Instructor records attendance for each class session.

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## TECHNOLOGY REQUIREMENTS

### LMS

All course sections offered by Texas A&M University-Commerce have a corresponding course shell in the myLeo Online Learning Management System (LMS). Below are technical requirements

LMS Requirements:

<https://community.brightspace.com/s/article/Brightspace-Platform-Requirements>

LMS Browser Support:

[https://documentation.brightspace.com/EN/brightspace/requirements/all/browser\\_support.htm](https://documentation.brightspace.com/EN/brightspace/requirements/all/browser_support.htm)

YouSeeU Virtual Classroom Requirements:

<https://support.youseeu.com/hc/en-us/articles/115007031107-Basic-System-Requirements>

## ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or [helpdesk@tamuc.edu](mailto:helpdesk@tamuc.edu).

**Note:** Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

## COMMUNICATION AND SUPPORT

If you have any questions or are having difficulties with the course material, please contact your Instructor.

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## Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778. Other support options can be found here:

<https://community.brightspace.com/support/s/contactsupport>

## Interaction with Instructor Statement

Face to face questions are always welcome. The instructor will response to your questions on D2L tools within 24 hours. For urgent questions, and for questions that are not answered within 24 hours, please prefer e-mail correspondence.

## COURSE AND UNIVERSITY PROCEDURES/POLICIES

### Course Specific Procedures/Policies

- ✓ Late assignments will be deducted **20%** for **within 1-day lateness**, but will not be accepted after **24 hours** of lateness unless the student has a valid excuse granted before the due date has passed.
- ✓ A make-up exam is allowed only if the student informs the instructor before the exam due date and provides a doctor's note with an acceptable health excuse. Family emergencies are not accepted as a reason for make-up exams.

### Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

### University Specific Procedures

#### Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the [Student Guidebook](http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx).  
<http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.aspx>

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: [Netiquette](http://www.albion.com/netiquette/corerules.html)  
<http://www.albion.com/netiquette/corerules.html>

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## **TAMUC Attendance**

For more information about the attendance policy please visit the [Attendance](#) webpage and [Procedure 13.99.99.R0.01](#).

<http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx>

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf>

## **Academic Integrity**

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Texas A&M University-Commerce acknowledges that there are legitimate uses of Artificial Intelligence, ChatBots, or other software that has the capacity to generate text, or suggest replacements for text beyond individual words, as determined by the instructor of the course.

Any use of such software must be documented. Any undocumented use of such software constitutes an instance of academic dishonesty (plagiarism).

Individual instructors may disallow entirely the use of such software for individual assignments or for the entire course. Students should be aware of such requirements and follow their instructors' guidelines. If no instructions are provided the student should assume that the use of such software is disallowed.

In any case, students are fully responsible for the content of any assignment they submit, regardless of whether they used an AI, in any way. This specifically includes cases in which the AI plagiarized another text or misrepresented sources.

### [Undergraduate Academic Dishonesty 13.99.99.R0.03](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf>

### [Graduate Student Academic Dishonesty 13.99.99.R0.10](#)

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf>

## **Students with Disabilities-- ADA Statement**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other

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things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

### **Office of Student Disability Resources and Services**

Texas A&M University-Commerce

Velma K. Waters Library Rm 162

Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: [studentdisabilityservices@tamuc.edu](mailto:studentdisabilityservices@tamuc.edu)

Website: [Office of Student Disability Resources and Services](http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/)

<http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServices/>

### **Nondiscrimination Notice**

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

### **Campus Concealed Carry Statement**

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the [Carrying Concealed Handguns On Campus](#) document and/or consult your event organizer.

Web url:

<http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf>

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

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### **A&M-Commerce Supports Students' Mental Health**

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## COURSE OUTLINE / CALENDAR

Week #	Topic	Material	Assessments
			Specific dates will be announced at least one week in advance
1	<ul style="list-style-type: none"> <li>• Introductions and Course overview</li> <li>• Introduction to Excel</li> </ul>	Ch.1 and Ch.2 <b>Textbook</b>	
2	<ul style="list-style-type: none"> <li>• Graphing with Excel</li> </ul>	Ch.3 <b>Textbook</b>	
3 & 4	<ul style="list-style-type: none"> <li>• Excel Functions</li> </ul>	Ch.4 <b>Textbook</b>	HW 1
5	<ul style="list-style-type: none"> <li>• Excel Functions</li> <li>• Excel's Statistics Functions</li> <li>• Pivot Tables</li> </ul>	Ch.9 <b>Textbook</b>	
6	<ul style="list-style-type: none"> <li>• Pivot Tables</li> <li>• Iterative Solutions using Excel</li> </ul>		Quiz 1
7 & 8	<ul style="list-style-type: none"> <li>• An overview of MATLAB</li> <li>• Numeric, Cell, and Structure Array</li> </ul>	Handouts	Midterm Exam
9	<ul style="list-style-type: none"> <li>• Functions</li> <li>• Programming with MATLAB</li> </ul>	Handouts	
10 & 11	<ul style="list-style-type: none"> <li>• Programming with MATLAB</li> </ul>	Handouts	HW 2
12	<ul style="list-style-type: none"> <li>• Installation of Python</li> <li>• Fundamentals of Python Data Types and Variables</li> <li>• String Variables Logical Expressions, IF statements, Logical Operators</li> <li>• Functions</li> </ul>	Handouts	Quiz 2
13 & 14	<ul style="list-style-type: none"> <li>• Programming Applications</li> <li>•</li> </ul>	Handouts	HW 3
15	<ul style="list-style-type: none"> <li>• Python extras</li> <li>• An Overview, Fundamentals of Programming with C language</li> </ul>	Handouts	Quiz 3
16	Final Exam Week		Final Exam

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