

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



ENGR 2304 Computing for Engineers

COURSE SYLLABUS: FALL 2024

INSTRUCTOR INFORMATION

Instructor: Burchan Aydin, Ph.D.

Office Location: AG/IT 213-D (*Engineering and Technology Building 2nd floor*)

Office Hours: Tuesday and Thursday 9:00 a.m. to 11:30 a.m.

Office Phone: 903-886-5174

Office Fax: 903-886-5690

University Email Address: burchan.aydin@tamuc.edu

Preferred Form of Communication: e-mail

Communication Response Time: within few hours

COURSE INFORMATION

Course Schedule: Section 01 Monday and Wednesday 12:30 p.m. to 1:45 p.m.

Section 02 Tuesday and Thursday 12:30 p.m. to 1:45 p.m.

Course Location: AGIT 118A

Materials – Textbooks, Readings, Supplementary Readings

Textbook(s) Required

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

Software Required

MS Excel (any version), Python

Course Description

The purpose of this class is to introduce students to the fundamentals of how to

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identify, formulate and analyze problems based on the knowledge of mathematics, science and engineering by using modern computing techniques. Concepts gained will pave the way to more advanced problem framing and selection of appropriate programming computing approaches. Prerequisite: MATH 2413.

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 Python, MATLAB, and Excel software skills to mathematical and engineering problems.
- Implement the computing techniques chosen to solve engineering problems.
- Use appropriate software tools Excel, MATLAB, 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.

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

Working knowledge and basic skills using MS. Word.

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Grading

Point Distribution

Assessment Type	%
Homework	10
Quizzes	20
Participation and Attendance	5
Midterm 1	20
Midterm 2	20
Final Exam	25
Total	100

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 incur a 20% penalty if submitted within 1 day of the due date but will not be accepted after 24 hours unless the student has obtained prior approval for a valid excuse before the due date.
- ✓ Make-up exams or quizzes are permitted only if the student notifies the instructor before the exam date and provides a doctor's note with an acceptable health-related excuse. Family emergencies are not accepted as reasons for make-up exams.
- ✓ Participation and attendance: No points will be deducted for up to 2 absences. Any absences beyond 2 will result in grade deductions in this category. Repeated lateness to class sessions will also result in deductions.
- ✓ Any student with more than 7 unexcused absences will receive an "F" in this course. The 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

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.

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.

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:

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

COURSE AND UNIVERSITY PROCEDURES/POLICIES

Course Specific Procedures/Policies

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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

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 #	Week's starting day	Topic	Textbook	Assessments Specific dates will be announced at least a week in advance
EXCEL	1	Aug 26	<ul style="list-style-type: none"> • Introductions and Course overview • Introduction to Excel 	By Ronald W. Larsen Ch.1 and Ch.2	
	2	Sep 2	<ul style="list-style-type: none"> • Graphing with Excel 	Ch.3	
	3	Sep 9	<ul style="list-style-type: none"> • Excel Functions 	Ch.4	
	4	Sep 16	<ul style="list-style-type: none"> • Excel Functions 	Ch.4	HW 1
	5	Sep 23	<ul style="list-style-type: none"> • Excel's Statistics Functions • Pivot Tables 	Ch.9	
	6	Sep 30	<ul style="list-style-type: none"> • Pivot Tables • Iterative Solutions using Excel 		Quiz 1
MATLAB	7	Oct 7	<ul style="list-style-type: none"> • An overview of MATLAB • Numeric, Cell, and Structure Array 	Handouts	Midterm Exam 1
	8	Oct 14	<ul style="list-style-type: none"> • Functions • Programming with MATLAB 	Handouts	
	9	Oct 21	<ul style="list-style-type: none"> • Programming with MATLAB 	Handouts	HW 2
	10	Oct 28	<ul style="list-style-type: none"> • Programming with MATLAB 	Handouts	
PYTHON	11	Nov 4	<ul style="list-style-type: none"> • Installation of Python • Fundamentals of Python Data Types and Variables • String Variables Logical Expressions, IF statements, Logical Operators 	Handouts	Quiz 2
	12	Nov 11	<ul style="list-style-type: none"> • Functions 		Midterm Exam II
	13	Nov 18	<ul style="list-style-type: none"> • Data Visualizations 		HW 3
	14	Nov 25	<ul style="list-style-type: none"> • Programming Applications • Thanksgiving Break 		
	15	Dec 2	<ul style="list-style-type: none"> • Python extras • An Overview, Fundamentals of Programming with C language 	Handouts	Quiz 3
	16	Dec 7	<ul style="list-style-type: none"> • Final Exam Week 		Final Exam

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