ENGR 1201-101CL

Intro to Engineering

Fall 2022

TTH 1:30pm – 3:20pm STEAM Building Room 127

Instructor Information: Rebecca Fagan
E-mail: rfagan@com.edu (preferred method of communication)
Office: (409)933-8244

Student hours and location:
Tuesday, Thursday, Friday 9:30am to 12:00pm
Or by appointment
Location: STEAM 325-18

Required:

Textbook
Engineering Fundamentals: An Introduction to Engineering
Saeed Moaveni
Cengage Learning; 6th edition (2019) ISBN-13: 978-1337705011

Materials
- Engineer Pad, 5 Squares per Inch, 8.5" x 11", Green
- "Exam Book" for Labs
- Scantrons – 882E

Online Resources
COM BrightSpace: https://de.com.edu/webapps/login/
Training is required to access. If you have any questions regarding course access or training, please contact the Distance Education department at ext. 8476.

Course Description:
(LECTURE 1, LAB 3). CREDIT 2. ACGM
An introduction to the engineering profession with emphasis on technical communication and team-based engineering design.

Prerequisites:
MATH 1314 with a grade of "C" or better.

Calculators: https://ncees.org/exams/calculator/
NCEES approved calculators will be used for exams. After your first warning, your exam will be collected and your grade will be a zero if you are caught using a non-approved calculator.

- 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.)

Course Requirements:
- **Lectures** – each class will cover textbook material.

- **Classwork** – activities based on the course material to help reinforce the information covered in lecture.
- **Homework** – these assignments will be linked to the course material to help reinforce the information covered in lecture.
- **Journals** –journal assignments will be used to describe the various disciplines in the engineering profession.
- **Exams** – will be based on the course textbook material and taken during class time and will consist of multiple choice, T/F, diagram identification, and short answer style questions.
- **Labs/Notebook** – lab activities will be in-class events and the data to be recorded in a lab notebook to be used to complete a lab report.
- **Lab Reports** – lab reports are due for each lab activities. You must attend the lab that the report is based to receive credit for the lab report.
- **Project** – this will be a design project inclusive of a full formal report.

Determination of Course Grade/Detailed Grading Formula:

- **Attendance** – 7 points per class attended.
- **Classwork** – 25 points per assignment for on-time and correct completion due at the end of the class.
- **Assignments** – 15 points per assignment for on-time and correct completion due as listed on the syllabus.
- **Exams** – 100 points per exam for correct completion.
- **Lab Notebook** – 250 points per notebook for on-time and correct completion.
- **Lab Reports** – 30 points per report for on-time and correct completion due as listed on the syllabus.
- **Project** – 200 points for on-time and correct completion due as listed on the syllabus.

Grading Formula:

Requirements	Total	%
Attendance	210	11%
Classwork	175	9%
Assignments	390	20%
Exams	300	15%
Lab Notebook	250	13%
Lab Reports	270	14%
Project	400	20%

Grading Policy: Letter grades will be based on the following scale:

A	90 - 100
B	80 - 89
C	70 - 79
D	60 - 69
F	Below 60
F_N	F for excessive absences

Lab Reports / Project:

- Each student is responsible for submitting a lab report in his/her own words.
- Reports must be submitted at the start of class on the scheduled due date. If class is not held as the result of a holiday, then submit your report at the start of the next class meeting after the holiday.
- All reports are to be word processed with 1" margins, 1.5 line spacing, and 11-point font.
- All reports must contain the following sections:
  - ✓ One Cover page – Provide the title of report, Report number, Course number, Department STEAM, College of Mainland and
  - ✓ Introduction – Provide background information regarding the experiment/exercise.
  - ✓ Body – Provide detailed information about the experiment/exercise and the steps performed to reach the desired goal of the experiment/exercise.
  - ✓ Conclusion – Describe the results of the experiment/exercise. Was the desired goal achieved? Explain. What would you change?
  - ✓ Proofread and spell check before submitting.

Late Work, Make-Up, and Extra-Credit Policy:
Any deviations from the policies described below are at the sole discretion of the instructor.

Late Work - Late work will be accepted ***ONE WEEK late ONLY*** and given half credit:

- Classwork
- Homework
- Journals
- Lab Notebook
- Lab Reports

Late Project submittal will ***NOT*** be accepted.

COM recognizes no excused absences other than those prescribed by law: religious holy days and military service https://www.com.edu/student-services/student-handbook.html.

Make-Up:
Should you anticipate an absence, you must contact your instructor by phone, email, or in person ***PRIOR*** to the absence. Each situation will be evaluated independently. Make-Up policy will be allowed for a death in the family or a documented student illness. You must provide legitimate proof for your excuse.

- **Exams** – There are NO MAKE-UP EXAMS. You ***may*** be allowed to replace ***ONE*** missed exam with ***HALF*** the value of your ***LOWEST*** exam grade. Any additional missed exams will be issued a ***ZERO***.
- **Labs** - There are NO MAKE-UP LABS.
- **Lab Report** - You ***may*** be allowed to use another student's data **IF** you have that student's approval **IN WRITING** and document in your report to that effect.

Extra-Credit:
During the semester there may be opportunities for extra credit. Students are responsible for submitting any extra credit work by the due date and no late work for extra credit will be accepted.

Attendance Policy:
Students are expected to attend all class sessions as listed on the course calendar. Attendance will be taken at the beginning of each class. Leaving early from class (without approval from the instructor) may result in an absence for that day. IF you do have to miss class, course materials will be posted, but it is your responsibility to obtain any additional notes from a classmate.

Communicating with your instructor:
ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means. Responses can be expected within 24 hours during the week or 48 hours if it is the weekend.

Student Learner Outcomes:

Student Learner Outcomes*	**Core Objectives****	**Assessed via this Assignment**
1. Describe the engineering profession and engineering ethics, including professional practice and licensure.	Personal Responsibility	Exams
2. Use technical communication skills to explain the analysis and results of introductory laboratory exercises in engineering and computer science.	Critical Thinking Skills	Lab Notebook
3. Explain the engineering analysis and design process.	Empirical and Quantitative	Lab Reports
4. Analyze data collected during laboratory exercises designed to expose students to the different engineering disciplines.	Teamwork	Labs
5. Describe the impact engineering has had on the modern world.	Social Responsibility	Journals
6. As part of a team, design a simple engineering device, write a design report, and present the design.	Teamwork	Project
7. Demonstrate computer literacy.	Communication Skills	Homework

** https://reportcenter.highered.texas.gov/training-materials/lower-division-academic-course-guide-spring-21/
** http://leaptx.org/coreobjectives/

Academic Dishonesty:
Any incident of academic policy will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a ***grade of zero*** on that exam and the student will be referred to the Office of Student Conduct for the appropriate discipline action.

Plagiarism:
Plagiarism is using someone else's words or ideas and claiming them as your own. Plagiarism is a very serious offense. Plagiarism includes paraphrasing someone else's words without giving proper citation, copying directly from a website and pasting it into your paper, using someone else's words without quotation marks. Any assignment containing any plagiarized material will receive a ***grade of zero*** and the student will be referred to the Office of Student Conduct for the appropriate discipline action.
Link to resource about avoiding plagiarism:
https://owl.english.purdue.edu/owl/resource/589/01/

Student Concerns:
If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Dean of Academic Programs, Dr. Barney at (409)933-8727 or rbarney@com.edu.

Classroom Conduct Policy:
College of the Mainland requires that students enrolled at COM be familiar with the Standards of Student Conduct, which can be found in the on-line Student Handbook https://www.com.edu/student-services/student-handbook.html.
Students should act in a professional manner at all times. Disruptive students will be held accountable according to college policy. Any violations of the Code of Conduct will result in a referral to the Office for student Conduct and may result in dismissal from this class.

Behavioral Expectations:
Each student is entitled to an environment conducive to learning. Any situation that prevents students from learning or the instructor from teaching is considered to be a disruption. Please be respectful of your fellow students and the instructor by adhering to the following:

1. Cell phones can be used sparingly during class, but if the use begins to be a disruption to yourself, other students, or the instructor, you will be asked to put the device away. Certain devices can be used to view content on the internet; however, this is at the discretion of the instructor. Laptops are ONLY permitted during class to take notes. Surfing the internet or checking email from your laptop is not permitted. ***During exams, no electronics will be allowed. Items not allowed include, but are not limited to, cell phones, laptops, tablets, ear buds, headphones. If the student has any of these devices out during an exam, the exam will be taken from the student, and they will receive a zero for that exam.***
2. Students can be removed from the class if they are exhibiting disruptive behavior as deemed by the instructor. Repeated incidents will result in automatic withdrawal from the class. Students who display this conduct will be removed from the class and a Conduct Referral Form may be submitted to the Dean of Students.

Course policies are subject to change. It is the student's responsibility to check Brightspace for corrections or updates to the syllabus. Any changes will be posted in Brightspace.

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook.<https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf. *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.* https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college careers. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Michelle Brezina at 409-933-8124 or mvaldes1@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is October 5. The last date to withdraw from the 16-week session is November 18. The last date to withdraw for the 2nd 8-week session is December 1.

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an FN grade.

Early Alert Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Resources to Help with Stress:
If you are experiencing stress or anxiety about your daily living needs including food, housing or just feel you could benefit from free resources to help you through a difficult time, please click

here https://www.com.edu/community-resource-center/. College of the Mainland has partnered with free community resources to help you stay on track with your schoolwork, by addressing life issues that get in the way of doing your best in school. All services are private and confidential. You may also contact the Dean of Students office at deanofstudents@com.edu or communityresources@com.edu.

Fall 2022 Tentative Course Outline:

Class Schedule for ENGR 1201 - T/Th - Fall 2022 — Update 08/22/22

DATE	DAY	CLASS #	CHAPTER	TOPICS	HOMEWORK		
					Assignment	Due	Comments
08/23	T	1	1 & 2	Lecture: Introduction to the Engineering Profession Lecture: Preparing for an Engineering Career	# 1	-	-
08/25	Th	2	3	Lecture: Introduction to Engineering Design Lab: Tower	# 2	# 1	Show Up to Class having READ Chapters 1 & 2 & 3
08/30	T	3	5	Lecture: Engineering Ethics Class Work: Ethics Case Studies	# 3	# 2	Show Up to Class having READ Chapter 5
09/01	Th	4	4	Lecture: Engineering Communication Class Work: Resume, Cover Letter, Lab Report	# 4	# 3	Show Up to Class having READ Chapter 4 Tower Lab Report Due - one week after completion of the lab
09/06	T	5	4	Lecture: Engineering Communication Class Work: Project Graduation	# 5	# 4	-
09/07	W			Census Date			
09/08	Th	6	14	Lecture: Comutational Engineering Tools - Excel Class Work: Excel	# 6	# 5	Show Up to Class having READ Chapter 14
09/13	T	7	-	Exam Chapters 1 - 5	-	-	
09/15	Th	8	14	Lecture: Comutational Engineering Tools - Excel Class Work: Excel	# 7	# 6	-
09/20	T	9	16	Lecture: Engineering Drawing and Symbols Class Work: Hand Drawing	# 8	# 7	Show Up to Class having READ Chapter 16
09/22	Th	10	16	Lecture: Engineering Drawing and Symbols Class Work: Drafting	# 9	# 8	-
09/27	T	11	16	Lecture: Engineering Drawing and Symbols Class Work: AutoCad (maybe)	# 10	# 9	-
09/29	Th	12	6	Lecture: Fundamental Dimensions and System of Units Lab: Bridge	# 11	# 10	Show Up to Class having READ Chapter 6
10/04	T	13	6	Lecture: Fundamental Dimensions and System of Units Lab: Bridge	# 12	# 11	-
10/06	Th	14	7	Lecture: Length and Length-Related Variables in Engineering Lab: Velocity	# 13	# 12	Show Up to Class having READ Chapter 7
10/11	T	15	8	Lecture: Length and Length-Related Variables in Engineering Lab: Velocity	# 14	# 13	Show Up to Class having READ Chapter 8 Bridge Lab Report Due
10/13	Th	16	9	Lecture: Mass and Mass-Related Variables in Engineering Lab: Boat Design	# 15	# 14	Show Up to Class having READ Chapter 9
10/18	T	17		Exam Chapters 14, 16, 6, 7, 8	-	-	Velocity Lab Report Due
10/20	Th	18	10	Lecture: Force and Force-Related Variables in Engineering Lab: Mobile	# 16	# 15	Show Up to Class having READ Chapter 10 Boat Lab Report Due
10/25	T	19	10	Lecture: Force and Force-Related Variables in Engineering Lab: Mobile	# 17	# 16	-
10/27	Th	20	10	Lecture: Force and Force-Related Variables in Engineering Lab: Mobile	# 18	# 17	-
10/31	M			**Deadline to submit Fall 2022 Graduation**			
11/01	T	21	11	Lecture: Temperature and Temperature-Related Variables in Engineering Lab: Volumetric Flow	# 19	# 18	Show Up to Class having READ Chapter 11
11/03	Th	22	12	Lecture: Electrical Current and Related Variables in Engineering Lab: Circuits	# 20	# 19	Show Up to Class having READ Chapter 12 Mobile Lab Report Due
11/08	T	23	12	Lecture: Electrical Current and Related Variables in Engineering Lab: Circuits	# 21	# 20	Volumetric Lab Report Due
11/10	Th	24	12	Lecture: Electrical Current and Related Variables in Engineering Lab: Circuits	# 22	# 21	-
11/15	T	25	13	Lecture: Energy and Power Lab: Viscosity	# 23	# 22	Show Up to Class having READ Chapter 13
11/17	Th	26	17	Lecture: Engineering Materials Lab: Materials	# 24	# 23	Show Up to Class having READ Chapter 17 Circuits Lab Report Due
11/18	F	-		WITHDRAWAL DAY - NO CLASS			
11/22	T	27	-	Exam Chapters 9, 10, 11, 12, 13, 17	-	-	Viscosity Lab Report Due
11/24	Th			THANGIVING DAY - NO CLASS			
11/29	T	28	-	Impact Of Engineering Team Work	# 25	# 24	Materials Lab Report Due
12/01	Th	29	-	Impact Of Engineering Team Work	# 26	# 25	-
12/06	T	30	-	Impact Presentations	-	# 26	-
12/09	F			GRADES DUE BY NOON			

Class schedule is subject to change.