



MIDWESTERN
STATE UNIVERSITY

MCCOY SCHOOL OF ENGINEERING
SYLLABUS – FALL 2026

MENG/EENG 1123-101: ENGINEERING ECONOMICS

COURSE INSTRUCTOR

Dr. Zeki Ilhan (zeki.ilhan@msutexas.edu)

Office: McCoy Hall 219E

Phone: (940) 397-4004

TEACHING ASSISTANT

TBA

CLASS SCHEDULE

<i>Days</i>	<i>Time</i>	<i>Location</i>
Monday		
Tuesday	08:00 am – 09:20 am	MY 136
Wednesday		
Thursday	08:00 am – 09:20 am	MY 136
Friday		

OFFICE HOURS

<i>Days</i>	<i>Time</i>	<i>Location</i>
Monday	12:00 pm – 01:00 pm	MY 219E
Tuesday	11:00 am – 12:00 pm	MY 219E
Wednesday	12:00 pm – 01:00 pm	MY 219E
Thursday	11:00 am – 12:00 pm	MY 219E
Friday	01:00 pm – 02:00 pm	MY 219E

CATALOG DESCRIPTION

The time value of economic resources such as cash flow diagrams, simple and compound interest, present worth, future worth, equal payment series, and the economic evaluation of engineering projects.

COURSE PRE-REQUISITES

MATH 1233 – College Algebra

REQUIRED TEXTBOOK

Engineering Economy by Leland Blank and Anthony Tarquin, 9th Edition. McGraw Hill, 2024.

ISBN: 9781264158096 (hardcover) | ISBN: 9781265832049 (ebook)

LIST OF TOPICS COVERED*

- Introduction, Terminology, and Basic Concepts
- Economy Factors, Single Amounts, Arithmetic and Gradient Series
- Combining Factors
- Nominal and Effective Interest Rates
- Present Worth and Future Worth Analysis
- Annual Worth Analysis
- Economic Evaluation of Engineering Projects via Basic Analysis Tools

**Additional material might be covered as the time permits.*

ATTENDANCE POLICY

This course will be delivered in face-to-face mode. Attendance is mandatory, and it represents a part of your overall grade. Attendance will be **checked randomly on select lectures** using the [AttendMe App](#). Detailed instructions on how to download and use the app will be made available in the lectures.

GRADING SCHEME

The overall grade will be based on the scores earned on the tests, homework assignments, and attendance. Three exams sum up to 80% of the total grade, homework scores sum up to an additional 15%, and the remaining 5% is the attendance. The contribution of each grade item to the overall score is provided in Table 1.

Table 1: Percentage contribution of each grade item to the overall grade.

Grade Item	Contribution
Test 1	25%
Test 2	25%
Final Exam	30%
Homework	15%
Attendance	5%
TOTAL	100%

FINAL EXAM

Thursday, December 10, 08:00 am – 10:00 am

DESIRE 2 LEARN (D2L) & BRIGHTSPACE PULSE

I will use the [D2L](#) platform for posting the syllabus, course communication, lecture notes, assignments, and grades. Mobile version of the D2L platform is the [Brightspace Pulse App](#), which is available for free on iPhone, iPad, and Android devices. Consider downloading Pulse for instant notifications about the course.

STUDENT RESOURCES

For quick links to numerous offices and student services available on the MSU Campus, please refer to the [MCOSME Student Resources Website](#)

ACADEMIC MISCONDUCT POLICY & PROCEDURES

Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work, not the individual to whom credit is given). Additional guidelines on procedures in these matters may be found in the [Office of Student Conduct](#).

USE OF GENERATIVE AI

Students may use AI tools (ChatGPT, Gemini, etc.) for brainstorming purposes, similar to how one might use a search engine like Google. However, generating assignments entirely through AI without meaningful personal input, revision, or understanding is not permitted and will be considered a form of plagiarism.

RECORDING CLASSES

Recording classes is prohibited without the professor's explicit permission. Such recordings, when permitted, are for personal use only and may not be uploaded to the internet or otherwise shared, transmitted, or published without the professor's prior consent. When it is feasible and appropriate, students may record classes to accommodate disabilities under the Americans With Disabilities Act, with prior approval of the Disability Support Services. Such recordings may not be uploaded to the internet or otherwise shared, transmitted, or published.

EMERGENCY AID RESOURCES FOR BASIC NEEDS

Unexpected life circumstances can affect anyone. If you are experiencing challenges meeting basic needs—such as housing, utilities, food, transportation, healthcare, technology, textbooks or other life necessities, resources may be available to help. Visit the [Student Emergency Support and Resources webpage](#) to learn more, and explore emergency support opportunities through MSU and how to access them. For additional information, please contact the Office of Student Affairs: Clark Student Center #108, (940) 397-7500, student.affairs@mstuexas.edu

COURSE ORGANIZATION AND ASSESMENT

- **Course Format:** This course consists of two 80-minute sessions each week. Class meetings will cover the most essential lecture topics and some example problems. Due to time limitations, not all the material in the reference textbook can be covered during the class; hence, follow the instructor's guidance and the lecture notes to prepare for the exams. You will **not** be responsible for those chapters/sections of the textbook that are not covered in the class.
- **General Study Guidelines:** Plan on spending few hours outside of class ***each week*** to carefully review the lecture material discussed during the week. It is better to ***go through the in-class exercises again, before working on the homework assignments***. Do not wait until the last day to prepare for exams. Utilize office hours throughout the semester whenever you need help about the assignments or the course material.
- **Student Attitude:** After the class starts, the use of phones, conducting private discussions, working on anything that is not directly related to the course, and making derogatory remarks about your classmates or instructor will not be accepted and may result in your dismissal from the class.
- **Midterm Progress Reports:** In order to help students keep track of their progress toward course objectives, the instructor will provide a Midterm Progress Report for at-risk students through their WebWorld account. Midterm grades will not be reported on the students' transcript; nor will they be calculated in the cumulative GPA. They simply give students an idea of where they stand at the midpoint of the semester. Students with a midterm grade below a C should talk to the professor and seek out tutoring.
- **Homework Evaluation Method:** Your performance will be tested regularly throughout the semester by homework assignments. While several homework problems may be assigned as part of a homework assignment, it may be the case that only a subset of problems will be graded. However, you must attempt all problems. ***Do not try to guess which problems will not be graded.***
- **Late Assignments:** All homework assignments must be submitted on the due date, at the due time. Late assignments will **not** be accepted. However, depending on the overall class progress, ***one (or two) of the lowest graded assignments may not be included in the final grade.***
- **Exam Make-up:** Make-up exams will be given only in case of an ***emergency*** (accompanied by a doctor's report) or a well-documented conflict due to a scheduled ***athletic event*** or a ***conference***.
- **Grade Appeals:** Grade appeals should be resolved with the instructor. If unresolved, they need a formal written appeal to the Dean of the College in which the course was taught. For more information about the grade appeals, consult the [Grade Appeal Checklist](#) through the MCOSME Student Resources website.
- **Academic Honesty Appeals:** Academic honesty appeals are reported to the Department Chair. For more information about the academic honesty appeals, consult the [Academic Honesty Checklist](#) through the MCOSME Student Resources website.
- **Disability Support Services:** In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. If you have a documented disability that will impact your work in this class, please make an appointment through [Disability Support Services](#) located in the Student Wellness Center, (940) 397-4140.
- **Disclaimer Statement:** Information contained in this syllabus, other than grading policies, may be subject to change with advance notice, as deemed appropriate by the instructor.

COURSE OBJECTIVES IN RELATIONSHIP TO ABET STUDENT OUTCOMES

Table 2: Course objectives matched with the ABET student outcomes (1-7)

COURSE OBJECTIVES	1	2	3	4	5	6	7
Given a relevant problem, students will create the appropriate cash flow diagram.	X	X					
Given a relevant problem, students will be able to set up solution equations using factors for present worth.	X	X					
Given a relevant problem, students will be able to set up solution equations using factors for future worth.	X	X					
Given a relevant problem, students will be able to set up solution equations using factors for uniform series.	X	X					
Given a relevant problem, students will be able to set up solution equations using factors for gradients.	X	X					
Students will be able to differentiate between nominal and effective interest rates.	X	X					
Given a relevant scenario, students will discuss and/or analyze and/or carry out an economic evaluation of a simple engineering project.	X	X		X			

Table 3: Detailed descriptions of the ABET student outcomes (1-7) listed in Table 2.

ABET OUTCOME	DESCRIPTION
1	an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2	an ability to apply engineering design to produce solutions that meets specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.
3	an ability to communicate effectively with a range of audiences.
4	an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5	an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.
6	an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7	an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.