



**LAMAR INSTITUTE
OF TECHNOLOGY**

ENGINEERING ECONOMICS: ENGR 2308

INSTRUCTOR CONTACT INFORMATION

Instructor: **Amit Biswas**

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Office Location: 855 E Lavaca St,
Beaumont, TX 77701

Office Hours: By appointment

CREDIT

3:3:0 Semester Credit Hours (3 Hours lecture)

MODE OF INSTRUCTION

Online

PREREQUISITE/CO-REQUISITE:

MATH 2413

COURSE DESCRIPTION

This course introduces students to the fundamental principles and techniques used to evaluate the economic feasibility and comparative financial desirability of engineering alternatives. Based on Chapters 1-12 of *Basics of Engineering Economy* (Blank & Tarquin, 2021), the course provides the analytical tools necessary for making informed engineering and business decisions involving costs, benefits, investments, and resource allocation.

Students will develop an understanding of the time value of money and apply economic analysis methods to compare engineering projects and alternatives. Topics include cost concepts and design economics; interest and equivalence calculations; present worth, annual worth, and future worth analyses; rate of return methods; benefit-cost analysis; depreciation and income taxes; replacement analysis; inflation and price-change considerations; and risk and uncertainty in engineering decision-making. The course also introduces sustainability considerations in economic evaluations and emphasizes ethical and responsible decision-making in engineering practice.

Upon completion of the course, students will be able to apply engineering economy techniques to evaluate projects, justify investments, and support engineering decisions in professional practice. The course also provides preparation for the Engineering Economy topics covered on the Fundamentals of Engineering (FE) Examination.

REQUIRED TEXTBOOK AND MATERIALS

Scientific calculator

Laptop

Textbook: **Basics of Engineering Economy by Leland Blank and Anthony Tarquin. 2021**

ISBN10: 126048713X | ISBN13: 9781260487138

ATTENDANCE POLICY

The campus policy mandates that students attend 80% of their scheduled instructional days. Class attendance is critical for understanding the topics. This will be tracked in Starfish via student access in Blackboard and participation during specified meeting times. Excessive unexplained absences will result in a ten-point penalty from the final semester grade (at the discretion of the instructor).

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the Academic Calendar. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

Classwork	20%
Assignments	20%
Quiz:	20%
Exam:	40%

GRADE SCALE

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

LIT does not use +/- grading scales.

STUDENT EXPECTED REQUIREMENT

For every hour in class (or unit of credit) students should expect to spend at least two to three hours per week studying and completing assignments. For 3 credit hour class students should prepare to allocate approximately six to nine hours per week outside of class in a 16 week session or approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at <http://catalog.lit.edu/index.php>

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or Wi-Fi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504, and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the LIT Catalog and Student Handbook. The LIT Catalog and Student Handbook may be accessed at www.lit.edu. Please note that the online version of the LIT Catalog and Student Handbook supersedes all other versions of the same document.

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

COURSE ASSESSMENT

Quiz: A quiz will be given every other week. The duration of the quizzes will be 15 to 20 minutes. We will continue the class sessions after the quizzes. It is to make sure that the students are studying the class materials on a regular basis.

Optional Homework: Students will regularly receive optional homework assignments. These assignments will not be graded. The purpose of the homework is to support the students' learning process.

Extra Credits: Extra credit opportunities will be announced during class lectures. The extra credits will be reflected on students overall grade points at the end of the semester.

Exams: Instructions and dates will be announced at least one week in advance. The calendar in the syllabus shows tentative dates.

ADDITIONAL COURSE POLICIES/INFORMATION

1. Any assignment that Blackboard considers late will be manually graded with a deduction of 20 points.
2. The Final Exam cannot be late for ANY reason. The semester ends when the Final

Exam is due.

3. Changes will be made to the calendar's topics and assignments because of any unanticipated circumstances.

SYLLABUS SCHEDULE

The schedule below is the tentative semester schedule which is subject to revision.

Date	Topic	Assignment	Due Date
08/24/2026	Chapter 1 Foundation of Economy	Reading Assignment Chapter 1 Assignment	08/30/2026
08/30/2026	Chapter 2: Time Value of Money	Reading Assignment Chapter 2 Assignment	09/06/2026
09/06/2026	Chapter 3: Nominal & Effective Interest Rate	Reading Assignment Chapter 3 Assignment TEST #1: Ch1-3	09/13/2026
09/20/2026	Chapter 4: Present Worth Analysis	Reading Assignment Chapter 4 Assignment	09/27/2026
09/27/2026	Chapter 5: Annual Worth Analysis	Reading Assignment Chapter 5 Assignment	10/04/2026
10/04/2026	Chapter 6 : Rate of Return Analysis	Reading Assignment Chapter 6 Assignment TEST #2: Ch 4-6	10/11/2026
10/11/2026	Chapter 7: Benefit Cost Analysis	Reading Assignment Chapter 7 Assignment	10/18/2026
10/18/2026	Chapter 8: Breakeven Analysis	Reading Assignment Chapter 8 Assignment	10/25/2026
10/25/2026	Chapter 9: Replacement Analysis	Reading Assignment Chapter 9 Assignment TEST #3: Ch 7-9	11/01/2026
11/01/2026	Chapter 10: Inflation	Reading Assignment Chapter 10 Assignment	11/08/2026
11/08/2026	Chapter 11: Cost Estimation	Reading Assignment Chapter 11 Assignment	11/15/2026
11/15/2026	Chapter 12: Depreciation	Reading Assignment Chapter 12 Assignment TEST #4 Ch 10-12	11/22/2026
11/22/2026	Thanksgiving Break		
11/29/2026	Final Exam (Cumulative)		12/07/2026

Notes:

- This schedule is tentative and subject to change