

Engineering Cost Analysis MFET 4200 FALL 2025 (3 credit hours)

PREPARED BY: Dr. Nourredine Boubekri Boubekri@unt.edu and updated by Dr. Jithin Kanayankottupoyil Jithin.Kanayankottupoyil@unt.edu

940 208 6449

OFFICE Hours : Department of Mechanical Engineering -Discovery Park

F187 : Monday and Wednesday. From 12:30pm to 1:50pm by appointment

DESCRIPTION:

Principles and techniques for cost evaluation of engineering design including: labor, materials and business accounting analysis, forecasting tools and techniques; operations, product, project and system estimation; and contract considerations.

COURSE LEARNING OBJECTIVES:

- 1-Demonstrate an understanding of application of cost estimation techniques and principles
- 2-Demonstrate an understanding of concepts of time value of money

COURSE LEARNING OUTCOMES

The course demonstrates that graduates have:

- 1.An ability to apply knowledge, techniques, skills, and modern tools of mathematics, science, engineering, or technology to solve broadly defined engineering problems

PREREQUISITES:

MFET 4190 (or equivalent) or consent of department

TEXTBOOK:

Engineering Economy, 17th Edition William G. Sullivan, C. Parick Koelling. Virginia Polytechnic Institute and State University and Elin M. Wicks C. Abacus Accounting, LLC; ©2019; Pearson ISBN 13: 978-1-292-26490-5

COURSE OUTLINE:

The course covers the following topics:

- 1 Introduction to Engineering Economy
- 2 Cost Concepts and Design Economics
- 3 Cost-Estimation Techniques
- 4 The Time Value of Money
- 5 Comparison among Alternatives
- 6 Depreciation methods
- 7 Breakeven Analysis
- 8 Decision Making Considerations

GRADING ELEMENTS AND WEIGHTS:

Semester Exams (2 mid-terms and 1 final) 25% each

Homework 25%

COURSE POLICIES

- Attendance is mandatory in this course. In case of absence due to unavoidable reasons, documentation is required as justification.
- If a lecture on a scheduled time is cancelled by the instructor, it will be made up by instructions via Zoom. When on Zoom, you need to keep your camera on and be present.
- Power point slides for each class will be posted on Canvas before the lecture. You are advised to go through those slides in advance. This would help in following the lectures and Q&A.
- The test will cover materials presented through the slides, discussed during the lectures, and contained in the reading assignments.
- Makeup test will not be given unless substantial documented evidence is provided for a reasonable excuse of absence. In the absence of the documented evidence the score for the test will be zero
- No student shall be compelled to attend a class or sit for a test on a day, or time prohibited by his or her religious belief. However, the student must inform the instructor well in advance.
- Dishonesty in this class will be handled as per the University of North Texas policy (<http://www.unt.edu/csrr>).

Disability Accommodation:

The University of North Texas complies with Section 504 of the 1973 Rehabilitation Act and with the Americans with Disabilities Act of 1990. The University of North Texas provides academic adjustments and auxiliary aids to individuals with disabilities, as defined under the law. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides reasonable accommodation of their disabilities. If you believe you have a disability requiring accommodation, please see the instructor and/or contact the Office of Disability Accommodation at 940-565-4323 during the first week of class.