

Mechanics Of Materials-II

Course Code: ME-310	Credit Hrs: 3-0
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Text Books & Reference Books:

1. E J Hearn, Mechanics of Materials Volume 1 & 2
2. Ferdinand P. Beer & Russel Johnston Jr., Mechanics of Materials, McGraw-Hill
3. Popov, Mechanics of Materials
4. P. P. Benham & R. J. Crawford, Mechanics of Engineering Materials, Longman Sci& Tech
5. Boresi, Arthur P., Schmidt, Richard J. Sidebottom, Omar M., Advanced Mechanics of Materials
6. R. C. Hibbeler, Mechanics of Materials
7. Andrew Pytel and F. L. Singer, Strength of Materials
8. W. F. Riley, L. D. Sturges and D. H. Morris, Mechanics of Materials.
9. W. A. Nashi, Statics and Mechanics of Materials, Schaum's outline series New York.

Course Outline:

- Analysis of stress and strain in two and three dimensions
- Principal stresses and strains
- Mohr's circle for stress and strain
- Thick-walled pressure vessels
- Symmetrical and asymmetrical loading
- Introduction to fracture mechanics
- Impact loading
- Fatigue and creep
- Virtual work
- Theories of elastic failure
- Theory of columns

Assessments:

Quizzes, Assignments, Mid Exam, Final Exam, Report Writing