IE 402 ADVANCED ENGINEERING ECONOMY

PREREQUISITES: IE 302 (a junior level course on Engineering Economy), IE 322 (a junior level course on probability) and IE 405 (a senior level course on Linear Programming).


OBJECTIVE: To provide students with the knowledge of some advanced engineering concepts such as capital budgeting, justification of advanced manufacturing systems and comparing investments under uncertainty. Activity Based Costing method of allocating overhead costs, decision trees and some revenue management techniques will also be covered.

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TOPICS:

1.0 Review of Engineering Economy
2.0 Capital Budgeting Models (Chapter 8)
3.0 Justification of Advanced Manufacturing Systems
4.0 Measures of Investment Worth Under Risk: Single Project (Chapter 10)
5.0 Methods of Comparing Risky Projects (Chapter 11)
6.0 Activity Based Costing
7.0 Selecting a Minimum Attractive Rate of Return (Chapter 5)
8.0 Decision Trees
9.0 Revenue Management

GRADING POLICY:

Bi-Weekly Quizzes: 10 %
Exam I 30 %
Exam II 30 %
Final 30 %

• Homework problems will be assigned; but will not be graded.

• All quizzes and examinations are to be done independently.

• All quizzes are open book, open notes. All exams are closed book, closed notes. A formula sheet and the necessary tables will be provided with the examinations.

• You will need to find a proctor for Examinations I and II and the Final.