

NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY EGR 206 - ENGINEERING ECONOMICS (2 CR.)

Course Description

Presents economic analysis of engineering alternatives. Studies economic and cost concepts, calculation of economic equivalence, comparison of alternatives, replacement economy, economic optimization in design and operation, depreciation, and after tax analysis. Lecture 2 hours per week.

General Course Purpose

This is an introductory course in the application of economic principles to engineering. It is intended for engineering transfer students, who will develop skills for economic analysis in engineering decision making.

Course Prerequisites/Corequisites

Prerequisite: MTH 162 or MTH 167

Course Objectives

Upon completion of the course the student will be able to:

- Apply economic boundary conditions inherent in engineering
- Use the fundamental tools of economic decision making
- Use cost models and equivalence in realizing engineering products
- Calculating interest and depreciation of engineering projects
- Use the impact of taxes and inflation in preparing engineering cost models
- Determine the economic impact of engineering project schedules

Major Topics to Be Included

- Introduction to economic decision-making.
- Cash flow and equivalence.
- Interest formulas and applications.
- Methods of analysis, including equivalent worth, interest rates, rates of return on investment, cost benefit.
- Depreciation.
- Income taxes and replacement.
- Inflation effects.
- Cost estimating sensitivity analysis.