



THE OHIO STATE UNIVERSITY
COLLEGE OF ENGINEERING

Engineering Economics - Online

ISE 2040.02

Credit Hours:

2.00 - 2.00

Course Components:

Lecture

Course Description:

Economic Analysis of engineering project alternatives. Cash flow modeling; time value of money; techniques for comparing project alternatives and making solid business recommendations; influence of financial accounting and cost accounting on cash flow models. Course uses MS Excel as primary business tool for modeling.

Prerequisites and Co-requisites:

Prereq: Soph standing in Engineering.

Course Goals / Objectives:

- Understand basic terminology used in financial reporting on income statements and balance sheets to company shareholders.
- Understand basic cost accounting terminology as related to cash flow mode
- Understand the concept of `minimal acceptable rate of return (MARR), how it is used, and what factors influence it.
- Model descriptions of engineering projects as discrete cash flo
- Use present worth, future worth, rate of return, simple payback period, discounted payback period, and break-even analysis to evaluate, compare and rank engineering projects

Course Topics:

- Understand the advantages, disadvantages, and pitfalls associated with each of the analysis methods.
- Evaluate project financial outcomes and make recommendations based on proper calculations using MS Excel functions and good spreadsheet design.
- Model project scenarios to evaluate risks.