IE 302 - ENGINEERING ECONOMY

Prerequisites: Math 141

Course Objectives:
To provide students with the time value of money concepts required to perform economic analysis on proposed engineering alternatives. In addition the student should be able to extend these concepts to solve problems encountered in personal financial situations.

Instructor: M. Jeya Chandra
Phone number: (814) 863 – 2358: e-mail: mjc3@psu.edu


HOME WORK: Assigned, but not graded.

Program Outcomes:

2.1 Apply time value of money and select cost-effective engineering solutions; understand cost-accounting principles.

4.2 Knowledge of contemporary issues (Topics on personal finance such as loans, individual tax laws and retirement saving plans, such as 401k, SRA, IRA and annuities).

Topics Covered:
1. Time value of money
2. Money Management (interest rates, compounding and equivalence)
3. Inflation
4. Comparison of alternatives using Present Worth, Annual Equivalence and Rate of Return criteria
5. Accounting for depreciation and taxes
6. Replacement Decision
7. Contemporary topics

Grading:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Quizzes (seven)</td>
<td>10 %</td>
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<tr>
<td>Examination I</td>
<td>30 %</td>
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<tr>
<td>Examination II</td>
<td>30 %</td>
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<tr>
<td>Final</td>
<td>30 %</td>
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- 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.