KING SAUD UNIVERSITY - College of Engineering

GE 403: Engineering Economy (First Semester 1437-1438H, 2016-2017G)

INSTRUCTORS: Prof. T. Al-Refeai, Prof. A. Al-Suhaibani,

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TEXT: White, Case, and Pratt, "Principles of Engineering Economic Analysis," 5th Edition.

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| Chapter | Topics | Homework |
| 1 | Introduction to Engineering Economic Analysis: Principles of Engineering Economic Analysis, Economic Analysis Techniques. Sections 1-2→1-4 | 8, 9, 10 |
| 2 | *Time Value Of Money*: Cash Flow Diagrams, Simple Interest Calculations, Compound Interest Calculations, Multiple Compounding Periods in a year and Continuous Compound Interest Calculations.  Sections: 2-1→2-6, 2-A. | 6, 8, 9, 13, 15, 16, 24, 32, 56, 90, 98, 130, 156, 164, 172. |
| 3 | *Equivalence and Indiffrence* . Section 3-7, 3-9 | 40, 41, 42, 43, 44, 45, 58, 60 |
| 4 | *Comparison of Alternatives:*, Choosing Planning Horizons,  Sections: 4-1, 4-2 | 4, 5, 6 |
| 5  6  7  8 | Measure of Worth:  *Present Worth Analysis*: Single Alternative, Multiple Alternatives, One shot investiment, Sections: 5-3, 5-4, 5-5  *Payback Period*: Single Alternative, Multiple Alternatives, Section: 5-6  *Capitalized Worth:* Single Alternative, Multiple Alternatives,  Sections: 5-8, 5-9  *Futur Worth Analysis*: Single Alternative, Multiple Alternatives, One shot investiment, Sections: 6-2, 6-3, 6-5  *Annual Worth Analysis*: Single Alternative, Multiple Alternatives, Least Common Multiple of Lives Assumption, Sections: 7-2, 7-3, 7-4  *Capital Recovery Cost*: Section 7-6  *Internal Rate of Return:* Single Alternative, Multiple Alternatives, Sections: 8-2, 8-3  *External Rate of Return:* Single Alternative, Multiple Alternatives, Sections: 8-4, 8-5  *Analizing Alternatives With no Positive Cash Flow* : Section 8-6 | CH5: 9, 10, 12, 13, 25, 27, 61, 62, 65, 66, 72, 74  CH6: 4, 7, 9, 18, 31, 32, 36, 67, 68  CH7: 4, 5, 8, 23, 24, 25, 28, 51, 53, 60, 61, 63  CH8: 3, 5, 8, 15, 34, 51, 53, 54, 65, 68, 70 |
| 9 | *Depreciation.*Sections: 9.1, 9.3, 9.4, 9.5, 9.A | 9,10,11,12,13,14 |
| 11 | *Replacement Analysis:* Sections 11-1, 11-2, 11-2-1, 11-3, 11-3-1 | 4, 5, 7 |
| 14 | *Economic Analysis of Public Projects*.Sections: 14-1 to 14-8 | 6, 8, 9, 13, 15 |
| 16 | *Cost Terminology*: Life Cycle Viewpoint, Past/Future Viewpoint, Manufacturing Cost Structure Viewpoint , Fixed/Variable Viewpoint and Average/Marginal Viewpoint.Section 16-2 | 3, 4, 6, 10, 12 |

Grade Distribution

Quizzes Weekly - Given by TA) 10% of final grade

1st Midterm (5:30 - 7:00 PM) Tusday 01/2/1438 (01/11/2016) 25% of final grade

2nd Midterm (5:30 - 7:00 PM) Tusday 28/3/1438 (27/12/2016) 25% of final grade

Final Exam To be determined by the faculty registrar 40% of final grade

\*\*Attendance is crucial and shall be made on time\*\*