

Department of Industrial Engineering			
Economy & Engineering Management (65301)			
Total Credits	3		
major compulsory			
Prerequisites	P1 : Calculus II (21102)		
Course Contents			
<p>This course is divided into two parts, Part I introduces the fundamental tools and concepts of economical evaluation of business and engineering projects such as cash flow, discounted cash flow, present value, future value, net present value, interest rate, decision making analysis and depreciation. This Part comprises 80% of the course. This course is divided into two parts, Part I introduces the fundamental tools and concepts of economical evaluation of business and engineering projects such as cash flow, discounted cash flow, present value, future value, net present value, interest rate, decision making analysis and depreciation. This Part comprises 80% of the course. Part II illustrates the basic elements of feasibility studies.</p>			
Intended Learning Outcomes (ILO's)		Student Outcomes (SO's)	Contribution
1	The student will be able to demonstrate knowledge in decision making problems, equivalence and compound interest rate .	A	40 %
2	The student will be able to analyze and interpret economic problems and deal with time value of money concepts	E	40 %
3	The student will be able to recognize basic concepts of feasibility studies	K	20 %
Textbook and/ or References			
Blank, L. & Tarquin, A., (2012), Engineering Economy 7th Edition, New York: McGraw-Hill.			
Assessment Criteria		Percent (%)	
First Exam		25 %	
Second Exam		25 %	
Quizzes		10 %	
Final Exam		40 %	
Course Plan			
Week	Topic		
1	Foundations of Engineering Economy		
2	How Time and Interest Affect Money		
3	Examples on Combined Factors		
4-5	Nominal and Effective Interest Rates		
6	Present Worth Analysis		
7	Annual Worth Analysis		
8	Rate of Return Analysis: Single Alternative		
9-10	Rate of Return Analysis: Multiple Alternatives		
11	Benefit Cost Analysis		
12	Multiple Criteria Decision Analysis		
13	Depreciation		
14-15	Feasibility study		