



AL IMAM MOHAMMAD IBN SAUD ISLAMIC UNIVERSITY
COLLEGE OF ENGINEERING
Department of Mechanical Engineering

Course Information	
Course Code and Name:	ME 472 Engineering Optimization
Credit Hours:	3 (3 Lecture + 1 Tutorial)
Prerequisites:	MATH 345 Numerical Methods

Course Description
Application of optimization techniques in solving engineering problems. Linear programming, non-linear programming, dynamic programming, integer programming, stochastic programming, genetic algorithms, heuristic methods, queuing theory, and new optimization methods.

Textbook			
Title	Operations Research: An Introduction		
Authors	Hamdy A. Taha		
Publisher	Prentice Hall	Year and Edition	2006, 8th edition

Course Contents
Introduction to optimization
Application of basic optimization techniques in the industrial setups
Linear programming
Non-linear programming
Dynamic programming
Integer programming
Stochastic programming
Heuristic methods
Queuing theory
Transportation

Academic Coordinator	Signature
Prof. Dr. Sabbah Ataya	<i>S. Ataya</i>



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