



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

Course Information	
Course Code and Name:	ME462, Advanced Manufacturing Technology
Credit Hours:	3 (3 Lecture + 1 Tutorial)
Prerequisites:	ME 363 Manufacturing Technology

Course Description
Non-conventional machining: Principles, Ultrasonic machining, Electromechanical Machining, Electro-discharge Machining, Plasma Arc Machining, Laser Beam Machining, Electron Beam Machining. Numerical Control of Machine Tools: Automation of Manufacturing Processes, Numerical Control, Coordinate systems, Types and components of CNC systems, Programming for CNC, Adaptive control, Computer Integrated Manufacturing.

Textbook			
Title	Advanced Machining Processes: Nontraditional and Hybrid Machining Processes,		
Authors	Hassan El-Hofy,		
Publisher	McGraw-Hill Professional	Year and Edition	2005

Course Contents
Introduction of manufacturing advanced systems
Non-traditional machining: Principles
Ultrasonic, Water-Jet, Electrochemical, Electric-Discharge
Plasma-Arc, Laser-Beam, Electron-Beam.
Numerical control of machine tools, Automation of manufacturing processes
Numerical control, coordinate systems
Types and components of CNC systems
Programming for CNC, adaptive control
Computer Integrated Manufacturing CIM

Academic Coordinator	Signature
Prof. Dr. Sabbah Ataya	S. Ataya

Official Stamp

