



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

Course Information

Course Code and Name:	ME464 Risk Assessment and Safety Management
Credit Hours:	3 (3 Lecture + 1 Tutorial)
Prerequisites:	STAT 215 Probability and Statistics for Engineers, GE 303 Engineering Economy

Course Description

Basic concepts of risk-reliability and hazard potential-elements of risk assessment – statistical methods – control charts-appraisal of advanced techniques-fault tree analysis-failure mode and effect analysis – quantitative structure-activity relationship analysis-fuzzy model for risk assessment. Also, using current industry leadership, this course involves analysis of safety program organization, supervision and management.

Textbook

Title	Risk Assessment: Theory, Methods, and Applications		
Authors	Marvin Rausand		
Publisher	Wiley-Blackwell	Year and Edition	2011, 1 st Edition

Course Contents

Introduction to risk, reliability and hazard
Elements of risk assessment
Statistical methods for risk assessments
Control charts
Fault tree analysis
Failure mode and effect analysis
Quantitative Structure-Activity Relationship analysis
Fuzzy model for risk assessment
Risk assessments case study

Academic Coordinator	Signature
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