



MUTAH UNIVERSITY
Faculty of Engineering
Department of Chemical Engineering



Industrial Safety Engineering

Course syllabus

Course Code	Course Name	Credits	Contact Hours
0404566	Industrial Safety Engineering	3	Office hours

INSTRUCTOR/COORDINATOR

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Website	

TEXTBOOK

- 1- Chemical process safety, D. Crawl, and J. Louvar.
- 2- Chemical process safety, R. Sanders.

Other Supplemental Materials

- 1- Perry's chemical engineering handbook, by R. Perry, and D. Green.

SPECIFIC COURSE INFORMATION

A. Brief Description of the Content of the Course (Catalog Description)

This course will cover the safety procedures used in industry and laboratories, importance of industrial safety. This course covers the concepts of corporate safety programs, laboratory safety inspections, personal protective equipment and process area safety features and procedures. Also the course would cover cases of industrial accidents, Toxicology, industrial hygiene, source and dispersion models, fire and explosions, risk analysis. A case study will be linked to the covered material.

B. Pre-requisites (P) or Co-requisites (C)

(P) 0404565

C. Course Type (Required or Elective)

Required

SPECIFIC GOALS

A. Specific Outcomes of Instruction

1. Analytical skill related to safety. (SOL 1, 2)
2. Understanding critical operational safety related to hazards. (SOL 2, 6, 7)
3. Able to analyze and quantify risk, and apply risk-based safety decision making. (SOL 1, 6)
4. Include application of risk analysis, fault tree analysis, human reliability analysis, failure modes and effects analysis. (SOL 1, 2, 6)
5. Provide a background in managing an overall system safety program. (SOL 4, 6)
6. Link the course studies with the actual life through a project. (SOL 4, 6, 7)

B. Student Outcomes Addressed by the Course

1	2	3	4	5	6	7				
x	x		x		x	x				

BRIEF LIST OF TOPICS TO BE COVERED

List of Topics	No. of Weeks	Contact Hours
Introduction	1	3 hrs per week
Toxicology	2	3 hrs per week
Industrial Hygiene	2	3 hrs per week
Source Models	3	3 hrs per week
Fires and Explosions	2	3 hrs per week
Hazards Identification	2	3 hrs per week
Risk Assessment	2	3 hrs per week
Total	14	

METHODS OF ASSESSMENT

No.	Method of assessment	Week and Date	%
1	First exam	5 th week	20
2	Second exam	10 th week	20
3	Project / assignments		10
4	Final exam	End of Semester	50
	Total		100