



Course Specification

(Bachelor)

Course Title :Crisis and Disaster Management

Course Code: INE 5365

Program: Bachelor of Industrial Engineering

Department: Industrial Engineering

College: Engineering

Institution: King Khalid University

Version: 1

Last Revision Date: 19-11-2025

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A. General information about the course:

1. Course Identification

1. Credit hours: (3)

2. Course type

A. ☐ University ☐ College ☐ Department ☒ Track ☐ Others
B. ☐ Required ☒ Elective

3. Level/year at which this course is offered: (10th level / 5th Year)

4. Course general Description:

This course introduces students to key principles and practices of crisis and disaster management with emphasis on industrial environments. It covers risk assessment, mitigation strategies, emergency preparedness, communication systems, and disaster recovery. Students learn to design effective response plans and enhance organizational resilience through practical tools, analysis, and case studies.

5. Pre-requirements for this course (if any):

NIL

6. Co-requisites for this course (if any):

NIL

7. Course Main Objective(s):

CLO 1: Explain fundamental concepts of crisis and disaster management and classify types of disasters.
CLO 2: Describe risk assessment, emergency planning, and mitigation strategies applicable to industrial systems.
CLO 3: Analyze risks, identify vulnerabilities, and evaluate emergency preparedness in industrial environments.
CLO 4: Develop and assess crisis response and business continuity plans using engineering tools.
CLO 5: Apply ethical, professional, and safety considerations in crisis management decision-making.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	70 %
2	E-learning	15	30 %
3	Hybrid <ul style="list-style-type: none"> Traditional classroom 		





No	Mode of Instruction	Contact Hours	Percentage
	• E-learning		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	15
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		45

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Apply knowledge of crisis and disaster management strategies for a given situation	K1	Lectures and tutorials	Assignments, Quizzes, and Exams
1.2	Recognize various strategies for emergency preparedness	K2		
1.3	Develops a managerial perspective on crisis management.	K3		
2.0	Skills			
2.1	Build to extract new knowledge and lessons from past disaster	S1	Lectures and tutorials	Assignments, Quizzes, and Exams
2.2	Create a team to Examines the distinctive challenges of crisis and disaster management	S4, S5		
3.0	Values, autonomy, and responsibility			
3.1	Adapt the professional ethics a professional responsibility in crisis and disaster management	V1	Lectures and tutorials	Assignments, Quizzes, and Exams



Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
3.2	Demonstrate Ethics, Legal issues, disaster management	V3		

C. Course Content

No	List of Topics	Contact Hours
1	Introduction to Crisis & Disaster Management: Definitions, Types of Disasters, Key Concepts	6
2	Risk Identification, Analysis, and Assessment in Industrial Systems	6
3	Emergency Preparedness Planning: Policies, Procedures, and Industrial Readiness	6
4	Disaster Mitigation Strategies: Engineering Controls, Safety Systems, and Fail-Safe Design	6
5	Business Continuity Planning (BCP) & Industrial Resilience	6
6	Emergency Response Systems: Coordination, Communication, Command Structure	6
7	Disaster Recovery, Rehabilitation, and Lessons Learned	3
8	Crisis Communication, Decision-Making Under Pressure, and Human Factors	6
Total		45

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Assignments	Every week	10 %
2.	Quiz 1	4	10 %
3.	Quiz 2	8	10 %
4.	Two Mid Term Exams	5, 10	30 %
5.	Final Exam	16	40 %
...			100 %

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	<p>1. Haddow, G., Bullock, J., & Coppola, D. (2021). <i>Introduction to Emergency Management</i> (7th Ed.). Elsevier. ISBN: 9780128171394</p> <p>2. Alexander, D. (2015). <i>Principles of Emergency Planning and Management</i>. Oxford University Press. ISBN: 9780198744719</p>
Supportive References	<p>National Fire Protection Association (NFPA). <i>NFPA 1600: Standard on Disaster/Emergency Management and Business Continuity Programs</i>. ISBN: 9781455918967</p>
Electronic Materials	United Nations Office for Disaster Risk Reduction (UNDRR). (2023). Disaster Risk Reduction Resources. https://www.undrr.org
Other Learning Materials	Lecture handouts

2. Required Facilities and equipment

Items	Resources
<p>facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)</p>	<ul style="list-style-type: none"> • Lecture room • Backboard facility for sharing lecture notes, submission of assignments, and attempting quizzes.
<p>Technology equipment (projector, smart board, software)</p>	Projector and smart board
<p>Other equipment (depending on the nature of the specialty)</p>	

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students	Indirect (Questionnaire)
Effectiveness of Students assessment	Faculty	Direct
Quality of learning resources	Program Leaders	Direct
The extent to which CLOs have been achieved	Faculty	Direct
Other		

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	Reviewed by Curriculum Committee Approved by Quality Committee
REFERENCE NO.	9-6-47
DATE	25/06/1447

