



# Course Specification

Diploma

Course Title: Risk Assessment and Crisis Management and Safety in the Field

Course Code: APMQ3214

Program: Mining and Quarrying

Department: Diploma Department

College: The Applied College

Institution: Umm Al-Qura University

Version: 1

Last Revision Date: 20 February 2025



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## A. General information about the course:

### 1. Course Identification

1. Credit hours: ( 2 )

#### 2. Course type

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

3. Level/year at which this course is offered: ( 1 St. Level)

#### 4. Course General Description:

##### 1. Course Description

This course provides students with essential skills in identifying, evaluating, and managing risks associated with fieldwork. It emphasizes the principles of hazard recognition, emergency response planning, health and safety regulations, and crisis communication. The course incorporates real-world case studies, field simulations, and practical training in first aid and safety protocols. The lectures will cover various types of crises. They also will describe how to set up a crisis management system and how to manage a company in a crisis. The students will also get trained in a TV studio to be prepared to act as a company's spokesperson. Fieldwork involves some levels of risk; one part of this may come from chance events that are unpredictable, and little can be done about it; another part of the risk, however, can be greatly reduced by awareness of hazards and good judgement based on experience. Persons undertaking field work must assess the risk, as far as possible, and this will vary in accordance with weather, cliff and sea conditions on the day and the experience, age, fitness and other characteristics of the persons. In providing field guides on the Internet no person is advised or recommended here to undertake geological field work in any way that might involve them in unreasonable risk from cliffs, ledges, rocks, sea or other causes. Individuals and leaders should carefully consider the safety aspects on the occasion of their visit and in bad conditions be prepared to cancel or modify part or all of the field trip as is necessary for safety. Appropriate safety and first-aid equipment should be taken, and ideally mobile phones should be available. Permission should be sought for entry into private land and clearly no damage should take place. Attention should be paid to weather warnings, local warnings and danger signs. No liability for death, injury, damage to, or loss of property in connection with a field trip is accepted by providing these websites of geological information. Safety Awareness Assessment. Fieldwork environments. Description of the module. The module comprises a tutorial for students made up of three main sections. They should undertake a risk assessment and inform participants of possible risks and of safety procedures. They should see that suitable warm and waterproof clothing, sturdy footwear, safety helmets and first-aid kits are taken and refuse to allow ill-equipped persons on their field courses. Rock Falls – General Rock Falls and Hard Hats - Case Studies. Illness of Participant in the Field. Displacement of Loose Rock by a Person on a Slope. Trapping in Mud. Mines, Adits, Caves etc. Precautions at Quarries Explosion of old shells, mines etc .Snake bites. Falling from a Cliff (and Problems of Fog).



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

None

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

None

### 7. Course Main Objective(s):

1. Identify potential physical, environmental, biological, and sociopolitical hazards in various field settings.
2. Conduct structured risk assessments and create mitigation plans.
3. Develop and implement crisis management and emergency response plans.
4. Demonstrate knowledge of field safety equipment and protocols, including navigation and communication tools.
5. Apply ethical and legal considerations in the field of safety planning.
6. Work effectively in teams under simulated crisis conditions.

### 2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	30	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> <li>• Traditional classroom</li> <li>• E-learning</li> </ul>		
4	Distance learning		

### 3. Contact Hours (based on the academic semester)

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



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

1.0	Knowledge and understanding			
1.1	<ul style="list-style-type: none"> <li>Identify potential physical, environmental, biological, and sociopolitical hazards in various field settings.</li> </ul>	<b>K1</b>	Lectures and Interactive Discussions	Written Exams (Mid-Term and Final Exams), Quizzes.
1.2	<ul style="list-style-type: none"> <li>Conduct structured risk assessments and create mitigation plans.</li> </ul>	<b>K3</b>	Lectures and Interactive Discussions	Written Exams (Mid-Term and Final Exams), Quizzes.
1.3	Develop and implement crisis management and emergency response plans.	<b>K2</b>	Lectures and Interactive Discussions	Written Exams (Mid-Term and Final Exams), Quizzes.
2.0				
2.1	4. Demonstrate knowledge of field safety equipment and protocols, including navigation and communication tools. 5. 6.	<b>S1</b>	Interactive Discussions	Written Exams (Mid-Term and Final Exams), Quizzes
2.2	Apply ethical and legal considerations in the field of safety planning.	<b>S3</b>	Interactive Discussions	Written Exams (Mid-Term and Final Exams), Quizzes
3.0	Values, autonomy, and responsibility			
3.1	Work effectively in teams under simulated crisis conditions.	<b>V1</b>	Individual and Group Presentations	Presentations

## C. Course Content

No	List of Topics	Contact Hours
1.	Introduction to Field Risk and Safety: Definitions, Frameworks, Case Studies	2
2.	Risk Assessment Basics: Hazard Identification, Likelihood & Consequence	2
3.	Environmental & Geophysical Hazards: Terrain, Weather, Natural Disasters	2
4.	Human and Wildlife Hazards: Conflict Zones, Remote Populations, Wildlife Encounters	2
5.	Health and Hygiene in the Field: Water, Sanitation, Zoonotic Disease	2
6.	Legal and Ethical Responsibilities: Liability, Insurance, Permits	2





7.	Field Communications: Radios, GPS, Satellite Phones, Emergency Beacons	2
8.	Emergency Response Planning: Evacuation, Search & Rescue Protocols	2
9.	Personal Safety Gear and First Aid Kits: Selection, Maintenance, Usage	2
10.	Crisis Management & Incident Command Systems (ICS)	2
11.	Psychological Preparedness and Team Dynamics in Crisis	2
12.	Field Scenario Simulations I: Environmental Emergency Drill	2
13.	Field Scenario Simulations II: Medical Response Simulation	2
14.	Final Project Planning & Safety Protocol Evaluation	2
15.	Final Project Presentations: Field Risk & Safety Plan for a Real or Hypothetical Site	2
Total		30

#### D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Quizzes	5	10
2.	Mid-Term Exam	8	20
3.	Presentations	12	10
4.	Homework	All weeks	10
5.	Final Exam	16	50

\*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	Rothwell, G. (2011) Risk Management for Scientists and Engineers CRC Press. — A practical guide to assessing and mitigating risk in research and field settings.
	Cliff, D. (2012) Managing Safety Risks in Field Projects Society for Mining, Metallurgy, and Exploration. — Covers structured approaches to risk management and communication in hazardous settings.





	Paterson, A., & Duncan, R. (2018) Safety and Survival on the Field: Essential Guide for Researchers Routledge. — A practical guide that combines field case studies with safety protocols and field-tested strategies.
Supportive References	Geological Society of America (GSA) Field Safety Policy and Guidelines — Includes checklists, emergency planning, and conduct expectations. <a href="https://www.geosociety.org">https://www.geosociety.org</a>
	National Outdoor Leadership School (NOLS) Risk Management for Outdoor Leaders — Widely respected guide in expedition and wilderness risk education. <a href="https://www.nols.edu">https://www.nols.edu</a>
	FEMA (Federal Emergency Management Agency) ICS 100, 200, 700 Courses – Incident Command System Basics — Foundational materials for learning about structured emergency response. <a href="https://training.fema.gov">https://training.fema.gov</a>
Electronic Materials	
Other Learning Materials	

## 2. Required Facilities and equipment

Items	Resources
<b>facilities</b> (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classrooms
<b>Technology equipment</b> (projector, smart board, software)	Data show
<b>Other equipment</b> (depending on the nature of the specialty)	

## F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Faculty	Direct (project, HW, Quiz, midterm and final exam)
Effectiveness of Students assessment	Students	Indirect (Student Survey)
Quality of learning resources	Program Coordinator	Direct analysis





Assessment Areas/Issues	Assessor	Assessment Methods
The extent to which CLOs have been achieved	Program Coordinator	Direct analysis
Other		

**Assessors** (Students, Faculty, Program Leaders, Peer Reviewers, Others (specify))

**Assessment Methods** (Direct, Indirect)

## G. Specification Approval

<b>COUNCIL /COMMITTEE</b>	Umm Al-Qura University Council
<b>REFERENCE NO.</b>	851110214476/195605
<b>DATE</b>	18/2/1447

