



OFFICE OF CONSULTATION & TRAINING  
College of Engineering and Petroleum





# Kuwait University- College of Engineering & Petroleum - Civil Engineering – OCT

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## CE001- Crisis Management



### Contact

-  98765392
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-  [tpd.occd@eng.ku.edu.kw](mailto:tpd.occd@eng.ku.edu.kw)

### Course objectives

- To introduce the crisis management concepts
- To overview the crisis management procedures
- Understand crisis management best practice
- Learn the roles and responsibilities of a crisis management team

### Training course duration:

***Three Days***

### Timing:

**8 a.m. - 2 p.m. Daily**

### Course outline :

#### Day one topics:

- Types of Crisis
- The characteristics of a major crisis
- Purpose of crisis management
- The principles of crisis management

#### Day two topics:

- Crisis Prevention
- Crisis Response and management
- Models and theories associated with crisis management
- Crisis Leadership



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## CE001- Crisis Management



### Day three topics:

Crisis Management Team  
Roles and responsibilities of crisis management team  
Crisis Management Plan  
Contingency Planning

### Day Four topics:

Crisis recognition and containment  
Crisis communication and media handling

### Day Five topics:

Examples of successful crisis management  
Examples of unsuccessful crisis management  
Learning from experience

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### Fees:

**250 KD**

### Instructor:

Dr. Anwar Al-Yaqout  
Dr. Naif Al-Mutairi  
Civil Engineering  
College of Engineering & petroleum  
Kuwait University

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## CE002- Health, Safety and Environment (HSE)



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### Course objectives

Overview of Environmental Conservation  
Understand the principles of Health, Safety and Environment (HSE)  
Gain awareness about Occupational Health and Safety  
Develop awareness and responsibility towards Community health & Safety

### Training course duration:

***Three Days***

### Timing:

**8 a.m. - 2 p.m. Daily**

### Course outline :

#### Day one topics:

Environmental Conservation  
Air Emissions and Ambient air quality  
Energy Conservation  
Wastewater and Ambient water quality  
Water conservation

#### Day two topics:

Waste management  
Hazardous materials management  
Noise pollution  
Contaminated Land and Remediation  
Electronic waste



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## CE002- Health, Safety and Environment (HSE)



### Day three topics:

Introduction to Occupational Safety  
General Facility Design and Operation  
Communication and Training  
Physical Hazards  
Chemical Hazards  
Biological Hazards  
Radiological Hazards

### Day Four topics:

Personal Protective Equipment  
Special Hazard Environments  
Monitoring  
Introduction to Community Health and Safety  
Water quality and availability

### Day Five topics:

Structural Safety and Project Infrastructure  
Life and Fire Safety  
Traffic Safety  
Transport of Hazardous Materials  
Decease Prevention  
Emergency Preparedness and Response

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### Fees:

**250 KD**

### Instructor:

Dr. Anwar Al-Yaqout  
Eng. Hany Amin  
Civil Engineering  
College of Engineering & petroleum  
Kuwait University

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## CE003- Kuwait Environmental Regulations



### Contact

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### Course objectives

- To give an overview of Kuwait EPA regulations
- To give information about EIA study reports
- To know about EPA responsibilities
- To gain knowledge of waste management as per EPA specifications

### Training course duration:

***Three Days***

### Timing:

**8 a.m. - 2 p.m. Daily**

### Course outline :

#### Day one topics:

- The environmental impact of development projects - Assessment
- Articles dealing with preparation and submission of EIA study reports
- EIA study reports
- The work environment and indoor environment

#### Day two topics:

- Management of Household, Hazardous, Healthcare and sludge wastes
- Disposal of hazardous and dangerous wastes - consent from KEPA
- Hazardous waste transportation - KEPA Specifications
- Incinerators - KEPA Specifications



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## CE003- Kuwait Environmental Regulations



### Day three topics:

Chemical Resource Management  
Classification of dangerous chemicals  
Requirements to be met for obtaining license for production, import and export of chemicals  
Requirements to be met for construction of warehouse for hazardous chemicals

### Day Four topics:

Protection of Marine and Coastal Environments  
K-EPA norms for discharge of liquid effluents into the sea  
Drinking water and groundwater standards  
Responsibilities from environmental damage

### Day Five topics:

Protection of earth crust from pollution  
Protection of ambient air from pollution  
Biodiversity Diversification  
General Provisions

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### **Fees:**

**250 KD**

### **Instructor:**

Dr. Anwar Al-Yaqout  
Dr. Naif Al-Mutairi  
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## CE004- Environmental Planning and Project Management



### Contact

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### Course objectives

- Introduce environmental management systems
- Identify environmental policies and control measures
- Illustrate appropriate projects planning and management
- Present the techniques for environmental impact assessment

### Training course duration:

***Five Days***

### Timing:

**8 a.m. - 2 p.m. Daily**

### Course outline :

#### Day one topics:

- \* Environmental Management Systems
- Basic environmental concepts
- Management objectives and functions
- Environmental legislation and enforcement
- Environmental Policies and guidelines
- Health, safety and Environment

#### Day two topics:

- \* Project planning and Scheduling
- Planning project activities
- Economic analysis and project financing
- Project control systems

#### Day three topics:



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## CE004- Environmental Planning and Project Management



\* Environmental Impact Assessment  
Tools and techniques of impact assessment  
Measurement and prediction of impacts  
Risk analysis  
Physical and socio-economic impacts  
Case studies

### **Day Four topics:**

\* Project Design Phase  
Selection of alternatives  
Clean technologies  
Mitigation measures  
Case studies

### **Day Five topics:**

\* Project Construction and Operation Phase  
Management functions  
Monitoring of pollutants  
Environmental auditing  
Case studies

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### **Fees:**

**250 KD**

### **Instructor:**

Dr. Anwar Al-Yaqout  
Eng. Ehab Soliman  
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Kuwait University- College of Engineering  
& Petroleum - Civil Engineering – OCT  
CE005- Fundamentals of Environment &  
Safety



## Contact

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## Course objectives

- To give an overview of environmental protection issues
- To develop an understanding of environmental management principles
- To develop awareness about environmental safety principles

## Training course duration:

***Five Days***

## Timing:

**8 a.m. - 2 p.m. Daily**

## Course outline :

### Day one topics:

- Environmental Processes
- Environmental Management Systems
- Environmental Risk Management and Assessment
- Emission Limits and Control

### Day two topics:

- Safety Issues
- Safety Techniques for Hazards and Effective Management
- Process Safety and Hazardous Control
- Safety Culture
- Safety Standards

### Day three topics:



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## CE005- Fundamentals of Environment & Safety



Environmental Monitoring and Data Management  
Site Assessment  
Management and Remediation

### **Day Four topics:**

Emergency Planning  
Work Permits  
Work Environment  
Fire Safety  
Electrical safety

### **Day Five topics:**

Environmental Protection Agencies  
Hazardous Wastes Management  
Emergency Procedures  
Waste Minimization

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### **Fees:**

**250 KD**

### **Instructor:**

Dr. Anwar Al-Yaqout  
Eng. Hany Amin  
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College of Engineering & petroleum  
Kuwait University

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## CE006- Modern and Special Concretes: Properties, Advantages and Uses



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### Course objectives

The course objectives include providing participants with an overview of types, advantages, disadvantages, properties, uses production and testing of different types of special concretes.

### Training course duration:

***Five Days***

### Timing:

***8 a.m. - 2 p.m. Daily***

### Course outline :

#### Day one topics:

- Introduction
- Resin and Polymer concrete
- Epoxy and polyester resins
- Properties of PC

#### Day two topics:

- Latex modified concrete
- Fiber reinforced concrete
- Organic Fibers
- Types and properties of fibers



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## CE006- Modern and Special Concretes: Properties, Advantages and Uses



### Day three topics:

- Recycled concrete
- Self-compacted concrete
- Light weight concrete
- Heavy weight concrete

### Day four topics:

- Sulpher concrete
- Ferrocement
- Shotcrete
- Roller compacted and no slump concrete

### Day five topics:

- Mass concrete
- High strength and High performance concrete
- Other advanced concrete types
- Discussion

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### Fees:

**250 KD**

### Instructor:

Moetaz El-Hawary  
Abdullah Almutairi  
Civil Engineering  
College of Engineering & petroleum  
Kuwait University

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## CE007- Traffic Safety



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### Course objectives

The aim of the course is to teach participants a scientific approach to and establish a system view of road safety. The course shall give a broad knowledge in "Road Safety Management".

### Training course duration:

***Two Days***

### Timing:

**8 a.m. - 2 p.m. Daily**

### Course outline :

#### Day one topics:

Comprehend the road traffic system – Man, Machine and Environment, Accidents and their consequences, Factors influencing the number and severity of accidents, Behavioural issues, Conditions and needs of vulnerable road-users, children, elderly and disabled road users, Evaluation of Road safety measures.

#### Day two topics:

Be able to critically analyse Road safety policies, Organisational issues and Programmes for monitoring road safety.  
Have an elevated awareness on the importance of road safety issues for the welfare of the society.



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Kuwait University- College of Engineering  
& Petroleum - Civil Engineering – OCT  
CE007- Traffic Safety



جامعة الكويت  
KUWAIT UNIVERSITY

**Fees:**

**250 KD**

**Instructor:**

Prof. Sharaf AlKheder  
Civil Engineering  
College of Engineering & petroleum  
Kuwait University



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## CE008- Traffic Control



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### Course objectives

By the end of the course, participants will gain an understanding of each step involved in providing traffic controls, identifying and applying workable concepts and techniques and better appreciate the principles in design and installation of traffic control devices.

### Training course duration:

***Two Days***

### Timing:

**8 a.m. - 2 p.m. Daily**

### Course outline :

#### Day one topics:

Introduction to Code of Practice for Traffic Control  
Basic Signages and Their Use  
Basic Traffic Safety Devices and Their Use  
Manual Operated Stop/Go Sign Operating Procedures  
Procedures in Laying of Traffic Signages and other safety devices

#### Day two topics:

Steps in Developing a Good Traffic Control Plan  
Effective Implementation of Traffic Control Plan  
Legal Consequences of Action and Inaction Relative to Traffic Control



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Kuwait University- College of Engineering  
& Petroleum - Civil Engineering – OCT  
CE008- Traffic Control



جامعة الكويت  
KUWAIT UNIVERSITY

**Fees:**

**250 KD**

**Instructor:**

Prof. Sharaf AlKheder  
Civil Engineering  
College of Engineering & petroleum  
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## CE009- Pavement Management System (PMS)



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### Course objectives

Understand the role of Pavement Management in Road Asset Management

Review pavement deterioration mechanisms and root causes of road damages

Learn about old and new road survey techniques and their outputs  
Appreciate the important role of daily maintenance in economic pavement management

Understand the economic and other benefits of moving towards proactive maintenance

### Training course duration:

***Two Days***

### Timing:

**8 a.m. - 2 p.m. Daily**

### Course outline :

#### Day one topics:

describe the elements included in project and network-level pavement management process:

define the difference between project and network-level pavement management processes and explain the reasons for the division and the interface required between them;

explain how to determine, what data to collect, and the methods available for collecting it at both project and network-level;

#### Day two topics:

explain how to define the condition of a pavement, the advantages and disadvantages of different collection methods, and how to decide which condition data and collection methods should be used



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## CE009- Pavement Management System (PMS)



for a given agency;  
describe different techniques to evaluating structural capacity of pavement systems;  
explain different approaches to analyzing Falling Weight Deflectometer deflections;  
design overlays using the AASHTO overlay design method;

### **Day three topics:**

describe different approaches to analyzing data at project and network levels and discuss the advantages and disadvantages of each;  
describe typical problems encountered in implementing pavement management processes and approaches which can be used to overcome them;  
describe the elements included in pavement preservation;  
select appropriate timing and pavement preservation strategy based on existing pavement conditions;  
describe different treatment techniques for routine maintenance, preventive maintenance, and minor rehabilitation.

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### **Fees:**

**250 KD**

### **Instructor:**

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## CE010- Design of Sustainable/Resilient Pavement System for Arid Weather of Kuwait



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### Training course duration:

***Two Days***

### Timing:

**8 a.m. - 2 p.m. Daily**

### Course objectives

This 3-day course provides guidance for design of pavements and supporting materials for roads, runways, parking, and open storage areas with emphasis on complying with the sustainability and resilient specifications.

### Course outline :

#### Day one topics:

- Have a better understanding of the characteristics of the flexible and rigid pavements;
- Be familiar with the criteria for the design of pavements and supporting materials.
- Character, magnitude and rate of change of climate and extreme weather events that should be considered in pavement design

#### Day two topics:

- Advancement into design of resilient and sustainable infrastructure
- Design which takes into account climate change and extreme weather events
- Practical and affordable pavement design for climate adaptation



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## CE010- Design of Sustainable/Resilient Pavement System for Arid Weather of Kuwait



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KUWAIT UNIVERSITY

### Day three topics:

- Effect of additional loading on pavement performance
- New development in pavement design
- Software used in pavement design and sustainability

### Fees:

**250 KD**

### Instructor:

Prof. Sharaf AlKheder  
Civil Engineering  
College of Engineering & petroleum  
Kuwait University