



## COURSE OVERVIEW HE0260 Environmental Impact & Life Cycle Assessments

### Course Title

Environmental Impact & Life Cycle Assessment

### Course Reference

HE0260

### Course Duration/Credits

Five days/3.0 CEUs/30 PDHs



### Course Date/Venue

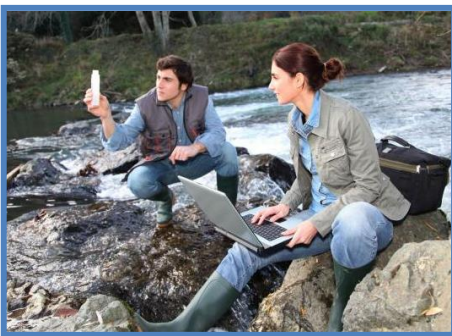
Session(s)	Date	Venue
1	January 28-February 01, 2024	Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE
2	February 04-08, 2024	Kizkulesi, Crown Plaza Istanbul Asia Hotels & Convention Center, Istanbul, Turkey
3	March 03-07, 2024	Oryx Meeting Room, Doubletree By Hilton Doha-Al Sadd, Doha, Qatar

### Course Description



***This practical and highly-interactive course includes various practical sessions and exercises. Theory learnt will be applied using our state-of-the-art simulators.***

Certified Environmental Impact Assessment Professional (CEIAP) is enabled with the knowledge and skills to perform the Environmental Impact Assessment in various projects to assess their different categories of the effects on the environment. EIAP is necessary in each new project started to ensure the environmental balance to be maintained.



Certified Environmental Impact Assessment Professional (CEIAP) possess all capabilities in achieving the desired result by bringing in the world class knowledge, best in class practices to any industry, organization or management paving the way for more dutiful environmental protection required for the more sustainable practices of the future. The certification assesses the proficiency in environmental laws, regulations and standards, assessment tools and technologies adopted with better scope.



Candidates pursuing for the Certified Environmental Impact Assessment Professional (CEIAP) examination have to pass with 50% a 2-hour examination comprising 50 multiple choice questions to assess their understanding of the subject.





This course is designed to provide participants with a detailed and up-to-date overview of environmental impact assessment. It covers the major environmental, resource problems and major environmental challenges; the global perspectives, the state of the environment, policy responses and the major existing and emerging environmental issues scope survey; the population growth and environmental resistance, depletion of natural resources, environmental problems, soil erosion and soil degradation; the threat to biodiversity, minerals depletion, fossil fuel depletion, pollution of the environment, emissions to air and the impact of acid deposition; the environmental impact assessment and the types of environmental impacts; managing the EIA process; evaluating and assessing the significant environmental impacts; and the mitigating measures and environmental impact statement (EIS).

During this interactive course, participants will learn the post-decision monitoring and auditing; the methods of EIA and the tools for screening and preliminary assessments; the impact identification methods; the main advantages and disadvantages of impact identification methods; the impact prediction methods and the key elements for assessing impact significance; the impact significance criteria, ecological significance criteria and social significance criteria; the alternative approaches to determine significance practical guidance; the environmental risk assessment; the hazards and consequences; estimating, assessing, managing and monitoring the risk; the ISO 14000 and 14040; the environmental pollution control, pollution prevention and waste minimization; the life-cycle assessment and its conceptual framework; and the global concerns and responses.

### **Course Objectives**

Upon the successful completion of this course, each participant will be able to:-

- Get certified as a “*Certified Environmental Impact Assessment Professional (CEIAP)*”
- Discuss the environmental impact assessment including the major environmental, resource problems and major environmental challenges
- Explain the global perspectives, the state of the environment, policy responses and the major existing and emerging environmental issues scope survey
- Identify population growth and environmental resistance, depletion of natural resources, environmental problems, soil erosion and soil degradation
- Recognize the threat to biodiversity, minerals depletion, fossil fuel depletion, pollution of the environment, emissions to air and the impact of acid deposition
- Carryout environmental impact assessment and identify the types of environmental impacts
- Manage the EIA process, evaluate and assess the significant environmental impacts and identify mitigating measures
- Review of the environmental impact statement (EIS) and apply post-decision monitoring and auditing
- Classify the methods of EIA and apply the tools for screening and preliminary assessments
- Employ impact identification methods and explain the main advantages and disadvantages of impact identification methods
- Carryout impact prediction methods and identify the key elements for assessing impact significance





- Review impact significance criteria, ecological significance criteria and social significance criteria
- Perform alternative approaches to determine significance practical guidance
- Apply environmental risk assessment, identify the hazards and consequences and estimate, assess, manage and monitor the risk
- Discuss ISO 14000 and 14040 as well as apply environmental pollution control, pollution prevention and waste minimization
- Illustrate life-cycle assessment and describe its conceptual framework as well as review global concerns and responses

### Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive “Haward Smart Training Kit” (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes **electronic version** of the course materials, sample video clips of the instructor’s actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

### Who Should Attend

This course provides an overview of all significant and considerations of environmental impact and life cycle assessments in accordance with the international standards for environmental and HSE professionals such as managers, engineers, superintendents, supervisors and officers. Further, the course is also suitable to those who wish to develop a good understanding of the evaluation of environmental aspects and impacts and how life-cycle assessments can be used to generate useful information for the organization, begin to study of design for environment requirements, contribute to the development of environmental objectives and targets and responsible for setting up environmental management systems and developing preparatory environmental reviews.

### Exam Eligibility & Structure

Exam Candidates shall have the following minimum prerequisites:-

Certified Environmental Impact Assessment Professional (CEIAP) requires a minimum of 2 years of experience in Environmental industry or minimum of 5 years of experience in Environmental related industry. Proof of employment has to be submit.

The candidates are obliged to renew their certification every 5 years, pertaining to conform to the current techniques, methodologies and practices. This will give them more leverage to be updated and sustain in the industry of their operation.

### Accommodation

Accommodation is not included in the course fees. However, any accomodation required can be arranged at the time of booking.



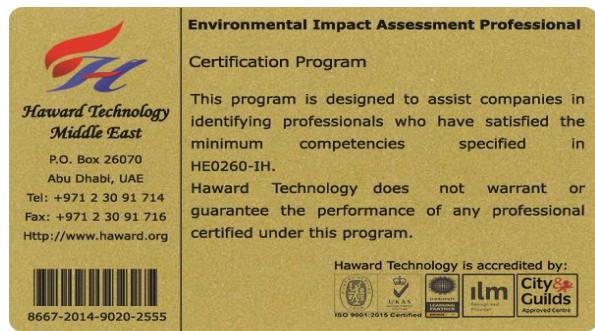
**Course Certificate(s)**

(1) Internationally recognized Competency Certificates and Plastic Wallet Cards will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Successful candidate will be certified as a "Certified Environmental Impact Assessment Professional (CEIAP)". Certificates are valid for 5 years.

**Recertification is FOC for a Lifetime.**

**Sample of Certificates**

The following are samples of the certificates that will be awarded to course participants:-





- (2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

\* Haward Technology \* CEUs \* Haward Technology \* CEUs \* Haward Technology \* CEUs \* Haward Technology \*



**Haward Technology Middle East**  
Continuing Professional Development (HTME-CPD)

**CEUs**  
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## CEU Official Transcript of Records

**TOR Issuance Date:** 14-Nov-19

**HTME No.** 8667-2014-9020-2555

**Participant Name:** Fahim Al Qahtani

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE0260-IH	Certified Environmental Impact Assessment Professional (CEIAP)	November 10-14, 2019	30	3.0
<b>Total No. of CEU's Earned as of TOR Issuance Date</b>				<b>3.0</b>

**TRUE COPY**



Maricel De Guzman  
Academic Director

Haward Technology has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this approval, Haward Technology has demonstrated that it complies with the ANSI/IACET 1-2013 Standard which is widely recognized as the standard of good practice internationally. As a result of their Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for programs that qualify under the ANSI/IACET 1-2013 Standard.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking Continuing Education Units (CEUs) in accordance with the rules & regulations of the International Association for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology is accredited by










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\* Haward Technology \* CEUs \* Haward Technology \* CEUs \* Haward Technology \* CEUs \* Haward Technology \*



## Certificates Accreditations


Certificates are accredited by the following international accreditation organizations:-

- 
The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.

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British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.

## Training Methodology

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

- 30% Lectures
- 20% Practical Workshops & Work Presentations
- 30% Hands-on Practical Exercises & Case Studies
- 20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.



**Course Instructor(s)**

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



**Mr. Raymond Tegman** is a **Senior HSE Consultant** with extensive experience within the **Oil & Gas, Petrochemical and Refinery** industries. His broad expertise widely covers in the areas of **Rigging Safety Rules, Machinery & Hydraulic Lifting Equipment, Handling Hazardous Chemicals, Spill Containment, Fire Protection, Fire Precautions, Incidents & Accidents Reporting, HSEQ Audits & Inspection, HSEQ Procedures, Environmental Awareness, Waste Management Monitoring, Emergency Planning, Emergency Management, Working at Heights, Root Cause Analysis, HSE Rules & Regulations, Process Safety Management (PSM), Process Hazard Analysis (PHA), Techniques, HAZOP, HSE Risk, Pre-Start-up Safety Reviews, HSE Risk Identification, Assessments & Audit, HSE Risk Assessment & Management Concepts, HSE Management Policy & Standards, HSSE Emergency Response & Crisis Management Operations, Confined Space Entry, Quantitative Risk Assessment (QRA), Hazardous Materials & Chemicals Handling, Safety Precaution & Response Action Plan, Hazard & Risk Assessment, Task Risk Assessment (TRA), Incident Command, Accident & Incident Investigation, Emergency Response Procedures, Job Safety Analysis (JSA), Behavioural Based Safety (BBS), Fall Protection, Work Permit & First Aid, Lock-out/Tag-out (LOTO), Emergency Response, Construction Supervision, Scaffolding Inspection, HAZCHEM, Manual Material Handling, Road Traffic Supervision, ISO 9001 and OHSAS 18001.**

During his career life, Mr. Tegman has gained his practical and field experience through his various significant positions and dedication as the **Operations Manager, Safety & Maintenance Manager, Safety Manager, Road/Traffic Supervisor, Assessor/Moderator, Safety Consultant, Safety Advisor, Safety Officer and Liaison Officer** from Zero Harm, SHRA Training & Services (Health & Safety), Road Crete, Balwin Property Development, DEME International, Gladstone Australia, Godavari Gas Pipeline and New Castle NCIG.

**Course Fee**

Dubai	<b>US\$ 5,500</b> per Delegate + <b>VAT</b> . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Istanbul	<b>US\$ 6,000</b> per Delegate + <b>VAT</b> . This rate includes Participants Pack (Folder, Manual, Hand-outs, etc.), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.
Doha	<b>US\$ 6,000</b> per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.





**Course Program**

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

**Day 1**

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	<b>PRE-TEST</b>
0830 – 0930	<b>General Environmental Outlook</b> Responsible Approach • Environment Definition • Background to Global Environmental Outlook • Population Growth • Throw-away Society • Changing Character of Natural Resource Challenges in the Last 25 Years • Major Environmental & Resource Problems • Resource Problems • Dependence on the Environment • Environment at Risk : Some Snapshots • Major Environmental Challenges • Major Environmental Challenges of the 21 <sup>st</sup> Century • Global Perspectives • Global Perspectives - Social Drivers • Global Perspectives - Developed World-Travel
0930 – 0945	Break
0945 – 1100	<b>General Environmental Outlook (cont'd)</b> Global Perspectives - Economic Drivers • Global Perspectives - Political Drivers • Global Perspectives - Demographic Drivers • Growth in World Population • Global Perspectives - Environmental Issues • The State of the Environment - Global Overview • Global CO2 Emissions • The State of the Environment - Global Overview • The State of the Environment - Global Overview - Nitrogen Loading • The State of the Environment - Global Overview - Chemical Risks • The State of the Environment - Global Overview - Disasters • The State of the Environment - Global Overview - El Niño • The State of the Environment - Global Overview - Freshwater • The State of the Environment - Global Overview- Marine & Coastal Areas • The State of the Environment - Global Overview - Atmosphere
1100 – 1215	<b>General Environmental Outlook (cont'd)</b> The State of the Environment - Global Overview - Urban Areas • The State of the Environment: Regional Trends • Man Made Forest Fires in Vietnam • Forest Fire in Indonesia • The State of the Environment - Europe and Central Asia • The State of the Environment - North America • Annual Per Capita CO2 Emissions (Tonnes) • The State of the Environment - West Asia • The State of the Environment - Polar Regions • Boreal Forest Damage in North-east Russia • Pine Glacier, Antarctica • Policy Responses - Global Action • Policy Responses - Multilateral Environmental Agreements • Regional Policy Responses - Africa • Regional Policy Responses - Asia and the Pacific
1215 – 1230	Break
1230 – 1330	<b>General Environmental Outlook (cont'd)</b> Regional Policy Responses - Europe and Central Asia • Regional Policy Responses - Latin America/Caribbean • Regional Policy Responses - North America • Regional Policy Responses - West Asia • Regional Policy Responses - The Polar Regions • Environment Oil & Gas Sector Concerns • Reasons for Oil & Gas Problems • Recent Management Responses • Recent Institutional Responses • Oil & Gas - UNEP's Objective • Future Perspectives • Major Existing & Emerging Environmental Issues SCOPE Survey • Outlook • UNEP Recommendations • Overall conclusions from GEO 2000







1330 – 1420	<p><b>Man &amp; the Environment</b>  <i>Carrying Capacity • Population Growth &amp; Environmental Resistance • Exponential Population Growth &amp; the Carrying Capacity • Depletion of Natural Resources • Categories &amp; Examples of Natural Resources • Depletion of Natural Resources (Renewable Resources, Non-renewable Resources, Perpetual Resources) • Environmental Problems • Soil Erosion • Soil Erosion – Examples • Soil Degradation in Africa • Loss of Biodiversity • Threat to Biodiversity in Latin America • Threat to Biodiversity – Example • Fresh Water Scarcity • Over-Abstraction of Water • Minerals Depletion • Fossil Fuel Depletion</i></p>
1420 – 1430	<p><b>Recap</b>  <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow</i></p>
1430	<p><i>Lunch &amp; End of Day One</i></p>

**Day 2**

0730 – 0930	<p><b>Man &amp; the Environment (cont'd)</b>  <i>Fossil Fuel Consumption in North America • Pollution of the Environment • Emissions to Air – Photochemical Smog • Temperature Inversion • Summertime Smog in Western Europe • Emissions to Air – Acid Deposition • pH Scale • Emissions to Air Acid Deposition: Impacts • Acid Deposition – Tree kill • The Impact of Acid Deposition in North America • Discharges to Water – Nutrient Loading • Discharges to Water – Nutrient Loading: Eutrophication • Discharges to Water – Oil Pollution • Oil Pollution in the Arctic Circle • Contamination of Land – Hazardous Waste Disposal • Contamination of Land – Industrial Heavy Metals • Heavy Metal Contamination in Europe &amp; Central Asia</i></p>
0930 – 0945	<p><i>Break</i></p>
0945 – 1030	<p><b>Environmental Impact Assessment</b>  <i>Introduction - Environmental Impact Assessment • The 'Impact Analysis' or Detailed Study Phase of EIA Involves • Types of Environmental Impacts • Direct vs. Indirect Impacts • With Credit To Scott Adams • Short- and Long-Term Impacts • Irreversible Environmental Changes • The Term 'Environment' Includes • Environmental Impact Assessment - Decision-Making Tool • Environmental Impact Assessment - Sustainable Development • Environmental Impact Assessment - Strategic Planning • Strategic Environmental Assessment and Environmental Impact Assessment • Environmental Impact Assessment - Development Control • Environmental Impact Assessment - Financial Assistance</i></p>
1030 – 1130	<p><b>Environmental Impact Assessment (cont'd)</b>  <i>Environmental Impact Assessment - Overseas Development &amp; the Rio Declaration • Development &amp; Worldwide Take-up of EIA • Overview of the EIA Process • Legal Consideration Example: Norwegian petroleum policy • Measures: Environmental Impact Assessments • EIA Stages • EIA – Elements of Mitigation • The Environmental Impact Assessment Study for Lofoten/ the Barents Sea • Specific Measures In Vulnerable Areas • Measures: Discharge Permits • Measures: Zero Discharge Philosophy • Measures: CO2-tax • Measures: Co-operation with the Industry • Stages of an EIA • Managing the EIA Process</i></p>
1130 – 1145	<p><i>Break</i></p>





1145 – 1230	<b>Environmental Impact Assessment (cont'd)</b> Screening of the Project • Scoping of the EIA • Description of the Development Project • Description of the Environmental Baseline • Identification of Key Environmental Impacts • Prediction of Environmental Impacts • Evaluation & Assessment of Significant Environmental Impacts • Identification of Mitigating Measures • Public Consultation & Participation • Presentation of the Findings in the EIS • Presentation of the Findings in the EIS Photo – Impression • Review of the Environmental Impact Statement (EIS) • Decision-Making • Post-Decision Monitoring & Auditing • International Organisations & EIA
1230 – 1315	<b>Environmental Impact Assessment (cont'd)</b> The UN Econ Commissions Europe & Asia and Pacific • The Economic and Social Commission for Asia and the Pacific • The European Union • The Organization for Economic Cooperation and Development (OECD) • The World Bank • The Asian Development Bank • Which of the Following Projects May Require an EIA? • Power Lines • Small Hotel • Housing Scheme • Wind Farm • Nuclear Power Station, Japan • Road Building Malawi • Pipeline
1315 – 1420	<b>Environmental Impact Assessment Methods</b> History • Its Philosophy • The Legislation - NEPA (USA,1971)
1420 – 1430	<b>Recap</b> Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Two

**Day 3**

0730 – 0900	<b>Environmental Impact Assessment Methods (cont'd)</b> The Legislation - EIA (85/337/EEC) • The Procedure
0900 – 0915	Break
0915 – 1030	<b>Classification of Methods</b> Tools for Screening and Preliminary Assessments • Checklists • Example of Checklist • Checklists: Pros & Cons • Interaction Matrices • Example of Matrix • Example of a Leopold Matrix • Matrices Pros & Cons • Network Analyses • Network Pros & Cons • Map Overlays • Overlays • Overlays: Pros & Cons • Choosing Tools • Impact Identification Methods • Main Advantages and Disadvantages of Impact Identification Methods • Information Required To Establish Baseline Conditions • An Environmental Impact • Impact Characteristic Summary Table
1030 – 1145	<b>Classification of Methods (cont'd)</b> Methods of Impact Prediction • Types of Uncertainty in Impact Prediction • Types of Social Impact • Health Impacts • Factors Affecting Economic Impacts • Factors Affecting Fiscal Impacts • Key Elements for Assessing Impact Significance • Guiding Principles for Determining Impact Significance • Test for Significance by Asking Three Questions • Impact Significance Criteria • Ecological Significance Criteria • Ecological Significance Criteria • Social Significance Criteria • Environmental Standards • Alternative Approaches to Determine Significance • Practical Guidance
1145 – 1245	<b>Environmental Risk Assessment</b> Terms & Definitions • Environmental Assessment (EA) Process • Example Risk Assessment Matrix • Sample Risk Assessment Output • Types of Risk Assessment - Hierarchy of Risk Assessment (Qualitative, Semi-quantitative, Quantitative) • The Nature of Environmental Risks • The Precautionary Principle • Reason for Undertaking Environmental Risk Assessment • Reason for Undertaking ERA - Environmental Laws & Standards • Reason for Undertaking ERA - Corporate Risk & Liability Management • Step by Step Approach to Environmental Risk Assessment • Steps in the Risk Assessment Process • Defining the Objectives





1245 - 1300	Break
1300 - 1420	<b>Environmental Risk Assessment (cont'd)</b> Defining the Scope • Describing the Activity • Identifying the Hazards • Hazard Classification & Control • Identifying the Consequences • Estimating the Magnitude of the Consequences • Ranking the Magnitude of Consequences for Plant & Animal Species • Estimating the Probability of the Consequences • Estimating the Risk • Examples of Risk Matrices • Basis • Factors to Consider
1420 - 1430	<b>Recap</b> Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow
1430	Lunch & End of Day Three

**Day 4**

0730 - 0830	<b>Environmental Risk Assessment (cont'd)</b> Risk Assessment Example • Evaluating the Risk • Fault Tree Analysis • Greenpeace Inflatable at Brent Spar with Water Canon being Used to Prevent Boarding • Assessing the Risk • Example of a Risk Assessment Table • Example of a Risk Assessment Criteria Matrix (ALARP*) • Managing the Risk • The Risk Management Hierarchy • Monitoring the Risk • Case Studies: Environmental Incidents & Accidents • Concluding Comments
0830 - 0930	<b>ISO 14000 &amp; 14040</b> ISO Structure (Demming Cycle) • ISO 14001 Elements • 17 Requirements in ISO 14001 • Environmental Auditing & the ISO Series • ISO 14000 Standards • ISO 14000 in Perspective • What the ISO 14000 Series Cover • Understanding ISO 14001: 2004 • Section Outcome • Why is ISO 14001 Important? • Why Environmental Management? • ISO 14001 EMS Structure • Scope, References, Terms and Conditions
0930 - 0945	Break
0945 - 1045	<b>ISO 14000 &amp; 14040 (cont'd)</b> Scope Enables • Terms and Definitions • PDCA (Plan, Do, Check and Act) Model as Part of the Environmental Management System (EMS) • PDCA Model for 14001:2004 • Environmental Management System • Environmental Management System Requirements • Environmental Management System Requirements consists of • General Requirements • Environmental Policy • Planning • Environmental Aspects and Impacts - Definitions • Planning Environment Aspects • Significance
1045 - 1145	<b>ISO 14000 &amp; 14040 (cont'd)</b> How to Identify Significance by using Logic Gates • Criteria for Assessment of Environmental Impacts • Life Cycle Assessment (14040) • Legal and Other Requirements • Objectives, Targets and Programmes • Implementation and Operation • Structure and Responsibility • Training, Awareness and Competence • Communication • Documentation • Examples of Documents • Control of Documents • Operational Control
1145 - 1200	Break
1200 - 1300	<b>ISO 14000 &amp; 14040 (cont'd)</b> Emergency Preparedness and Response • Checking • Monitoring and Measurement • Evaluation of Compliance • Non-conformity, Corrective Action and Preventive Action • Control of Records • Internal Audit • Management Review • Input to management review shall include • Outputs from management review shall include • Common Elements - OHSAS 18001, ISO 14001, ISO 9001 • Case Study Gulf Of Mexico





1300 – 1420	<b>Environmental Pollution Control</b> <i>Aims and Objectives of Session • Pollution Prevention • Process Design for Pollution Prevention • Waste Minimization • Environmental Management Hierarchy • P2 Arrow Diagram • Emission Examples • P2 Targets • What is NOT Waste Reduction? • Basic Assessment Flow Diagram • Materials Balance • Describe the Waste</i>
1420 – 1430	<b>Recap</b> <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Topics that were Discussed Today and Advise Them of the Topics to be Discussed Tomorrow</i>
1430	<i>Lunch &amp; End of Day Four</i>

**Day 5**

0730 – 0930	<b>Life-Cycle Assessment (14040)</b> <i>The Life-Cycle Concept • Life-Cycle Assessment • LCA Conceptual Framework - SETAC Definition • ISO 14040 Definition of LCA • General Scope of LCA • LCAs in the modern world – ISO 14040 • Importance of LCA • Limitations of LCA • Pros and Cons for LCA Within the Company • Spectrum of LCA • Focus of LCAs • Facility-Based Life-Cycle Thinking • Application to Performance Track</i>
0930 – 0945	<i>Break</i>
0945 – 1215	<b>Life-Cycle Assessment (14040) (cont'd)</b> <i>LCA Steps • LCA In Practice • LCA Application • Life Cycle Analysis • LCA Simplified • LCA Example • Boustead Model in LCA • What is the Boustead Model? • Assigning Life Cycle Inventory Results to Environmental Impact Categories • A Company Evaluation Report LCA • Life Cycle Risk Management • ISO 14040: Example of a product system for LCA • Success Factors of LCA</i>
1215 – 1300	<b>Global Concerns &amp; Responses</b> <i>Global Concerns • Environmental Challenges • Global Concerns - Global Warming - The Natural Greenhouse Effect vs. Human Enhanced Greenhouse Effect • Global Concerns - Global Warming • Predicated Sea Level Rise of 0.5m – Europe and Mediterranean Basin • Global Concerns - Stratospheric Ozone Depletion • Creation of the Ozone Hole over Antarctica • Antarctic Ozone Hole • Waste by Sector in U.S.</i>
1300 - 1315	<b>Course Conclusion</b> <i>Using this Course Overview, the Instructor(s) will Brief Participants about the Course Topics that were Covered During the Course</i>
1315 - 1415	<b>COMPETENCY EXAM</b>
1415 – 1430	<i>Presentation of Course Certificates</i>
1430	<i>Lunch &amp; End of Course</i>

### **Simulators (Hands-on Practical Sessions)**

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using our state-of-the-art “AERSCREEN Model” and the Environmental simulators “CAMEO Chemicals Suite Software” and “US EPA SCREEN3 Model”.



**AERSCREEN Model**



**CAMEO Chemicals Suite Software**



**Course Coordinator**

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