



Technological Advances in Risk Mapping (IRMR 7.5) (WGG Offshore Academy Master's Degree Level 7 in IRMR)

Target Group

The 7.5 Technological Advances in Risk Mapping training unit is directed towards individuals who are, or may be required to manage, direct, and conduct strategic governance and social responsibilities planning in the context of incident response for an organisation.

Course Elements & Competency

The following unit elements will be delivered:

- Element 7.5.1 Risk modelling and mapping.
- Element 7.5.2 Hazard modelling and mapping.
- Element 7.5.3 Geospatial mapping.
- Element 7.5.4 Future trends, gaps and requirements.

Course Outline

7.5.1 Risk modelling and mapping	<ul style="list-style-type: none">• Catastrophe loss models• Data inputs• Available models
7.5.2 Hazard modelling and mapping	<ul style="list-style-type: none">• Hazard mapping and long-term forecasting.• Monitoring and short-term forecasting
7.5.3 Geospatial mapping	<ul style="list-style-type: none">• Introduction to geospatial mapping
7.5.4 Future trends, gaps and requirements	<ul style="list-style-type: none">• Data quality• Community-based solutions• Computing• Modeling

Learning Outcomes

To successfully complete this unit delegates must be able to demonstrate:

- Application of advanced knowledge and skills in process safety for safer design and operation at all asset lifecycle stages.
- Investigate, analyse and solve process safety issues based on interpretation of available data and synthesis of relevant information including lessons learned from previous major accidents.
- Utilize a range of tools, techniques, and methodologies to identify, manage, and control process safety issues.
- Comprehend professional responsibilities and identify technical and legal requirements for process safety practices.
- Communicate effectively on process safety activities as an individual, member or a leader in a team with the engineering community and society at large.

Pre-requisite & Periodicity

There are no specific pre-requisites for the Understanding Environmental Conditions During Incident Response training. However, the delegate must be able to demonstrate suitable exposure within his/her sphere of influence therefore a good understanding of the resources used by the plant, the nature and source of pollutants and the waste materials produced by the plant. It also requires the operator to understand the impact of using resources, and the effect pollutants and waste can have on the local environment.

The 7.5 Technological Advances in Risk Mapping training unit is part of the Master's Degree Level 7 program in Incident Response, Management & Recovery.

Aims & Objectives.

This subject describes the skills, knowledge and behaviours required to manage, direct and conduct strategic governance and social responsibilities planning for an organisation. This includes developing objectives and strategies, implementing initiatives and analysing, interpreting, and monitoring trends and processes. It focuses on making provision for inclusivity to ensure that Response, Management, and Recovery of Incidents are compliant & ensure an effective and organized outcome to all involved and concerned at all levels.

Duration, Timings & Numbers

The optimum "contact time" for this training is seen as 26 hours with classroom-based instruction as the primary delivery style.

The total contact time per day will not exceed 8 hours. The total training day will not exceed 10 hours.

The maximum number of delegates per unit is six (6).

The Course Format

Course format is classroom lecture with Q&A and interactive discussion.