Course Introduction

This online course introduces the learner to the major elements of risk and safety management and guides them through the key steps of the risk management process including:

- Risk identification
- Risk analysis
- Risk evaluation
- Risk treatment
- Communication / monitoring

Except where indicated otherwise, the modules are not specific to any one high hazard industry.

The course is designed by practising consultants in high hazard industries, ensuring that your learning is highly relevant to industry.

Course Units – Risk and Safety Management

- Unit 1 Benefits of Risk Management
- Unit 2 Risk Management Process
- Unit 3 Hazard Identification
- Unit 4 HAZID/ENVID Studies
- Unit 5 HAZOP Study
- Unit 6 Bowtie Analysis part 1
- Unit 7 Bowtie Analysis part 2
- Unit 8 Fault Tree Analysis
- Unit 9 Risk Assessment Matrix
- Unit 10 QRA
- Unit 11 QRA Frequency Analysis
- Unit 12 QRA Consequence Analysis
- Unit 13 Human Factors
- Unit 14 Functional Safety
- Unit 15 Acceptance and ALARP
- Unit 16 Risk Treatment
- Unit 17 Environmental Risk Assessment
- Unit 18 Emergency Response Management
- Unit 19 HSE-MS
- Unit 20 Safety Culture
- Unit 21 Incident Investigation
- Unit 22 Communication & Consultation
- Unit 23 Monitoring, Audit and Review
- Unit 24 Safety Cases
- Unit 25 High Profile Accidents
- Unit 26 Risk Management through Lifecycle
- Final Assessment

Course content may be subject to change or updates. Please contact the IET for the latest course content.
Learning Outcomes – Risk & Safety Management

At the end of the course, learners will be able to:

- Deconstruct the risk management process into its constituent components.
- Logically deduce the most appropriate risk assessment tool / technique to be used, depending on circumstances.
- Apply risk assessment techniques (e.g. HAZID, ENVID, HAZOP Bowtie, DRA, Risk Assessment Matrix, HFE, LOPA, SIL, ALARP) for themselves, and better understand assessments carried out by others.
- Appreciate the role of HSE management systems and safety cases, culture, competence, communication, monitoring and review in reducing the probability and consequences of major accidents.
- Define the requirements of emergency and crisis response management and apply an investigation and analysis process to determine the causes of an incident.

About the IET Academy

The IET Academy is an e-learning solution to meet companies’ training and development objectives, tailored for engineers at all career levels. It provides in-depth, online courses covering a broad range of technical and professional subjects which can be studied in whole or in bite size units.

The expert content is developed by the Institution of Engineering and Technology (IET), Europe’s largest professional engineering institution, in partnership with some of the UK’s leading universities and industry organisations – ensuring the highest standard in future engineering e-learning and development.

In-depth learning

Courses range up to 31 hours in full and can be studied in whole or in bite size units allowing companies and individuals to invest in the most suitable training programme for them.

Trusted content

The IET Academy is an industry-leading, online learning solution, providing reliable, high calibre engineering courses in a broad range of technical and professional subjects.

Who should take this course?

This course is suitable for managers, engineers, operators, HSE advisors, risk management practitioners, and anyone else involved in managing risks. Individuals aspiring to hold any of the above types of position will welcome the information and experience contained within the course. Most units are cross-industry, however some include examples from certain sectors.

Pre-requisites: Education, skills or experience equivalent to bachelor degree or equivalent in a relevant science, technology or engineering subject, or 5+ years of relevant work experience, plus proven English language capability.

Cost effective & flexible

For many engineers staying informed of changing technology in order to remain current in their role is paramount, however, finding the time and budget to attend external training is challenging. The IET Academy’s flexible learning platform allows access to training ‘anytime, anywhere’ or the course content can be quickly and easily integrated into your existing learning management system.

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- Computing Ethics
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- Entrepreneurship for Engineering
- Management & Leadership
- Power Systems Engineering
- Mobile Communications
- BIM Management
- Connected Autonomous Vehicles

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