What’s the purpose?
This course enables students to understand and apply Probabilistic Safety Assessment (PSA) techniques with particular relevance to the nuclear industry. It provides an overview of nuclear industry safety assessment guidelines and principles. Reliability theory and system modelling are covered, including event tree and fault tree analysis. Consequence modelling in the nuclear industry and typical hazard scenarios such as fire, aircraft crash, natural hazards, etc. is also discussed. The module includes application of PSA results and demonstration of ALARP.

Who is this for?
Managers, engineers and HSE professionals who need to lead or undertake risk management processes for their organisation and facilities. Individuals new to the nuclear industry who require an overview of the industry’s risks.

What does it cover?
- Introduction to safety assessment in the nuclear industry
- Safety assessment, guidelines and principles
- Reliability theory and concepts
- System reliability and modelling
- Fault and hazard identification
- Frequency analysis
- Supporting data
- Consequence analysis in the nuclear industry
- Hazards PSA
- Application of results, including ALARP demonstration.

After completing the module you should be able to:
1. Deduce the PSA techniques appropriate to a real-life nuclear plant
2. Evaluate the risks associated with the operation and design of the
3. Identify and critically examine any additional measures that may be required to ensure that the risks are both tolerable and ALARP.

What prior study is recommended?
Education, skills or experience equivalent to undergraduate level. Risktec modules: Principles of Risk Management; Hazard Identification; Fault Tree & Event Tree Analysis.

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<tr>
<th>Attendance only</th>
<th>Hours</th>
<th>Face-to-face</th>
<th>Distance learning</th>
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<tr>
<td>15</td>
<td>2 days</td>
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If you are a corporate client and would like a customised delivery, please contact the training team to discuss your requirements.