

Fault Tree and Event Tree Analysis

Purpose

This course enables students to understand the principles of fault and event tree analysis and to perform their own assessments. The module looks at the development of fault tree and event tree models and populating them with suitable reliability data, human errors and dependent failures. It then considers quantification of the models and how they can be used to evaluate potential improvements.

At the end of the course you will be able to

1. Consider when it is appropriate to apply fault tree analysis and event tree analysis
2. Design and analyse fault tree models incorporating appropriate reliability data for components, human error and dependent failures
3. Generate and analyse event tree models

Outline content

- Introduction to Fault Tree Analysis
- Fault Tree construction
- Minimal cut sets
- Basic event reliability data
- Dependent failures and human errors
- Fault Tree quantification
- Fault Tree analysis advantages & disadvantages
- Introduction to event tree analysis
- Event Tree construction and quantification
- Fault and Event Tree software
- Further study and additional exercises

Recommended prior study

Education, skills or experience equivalent to undergraduate level

Risktec module: *Principles of Risk Management*

Who should attend

Managers, engineers, operators, HSE advisors and risk management practitioners.

Delivery Methods

Face-to-face, Distance Learning, or Blended Learning

Levels of Assessment

- Attendance only
- Assessment by Risktec
- Postgraduate Qualifications: PgCert, PgDip and MSc

Assessment details

Postgraduate programmes: activities and assignment (total about 80 hours)

Module details

Level: Masters
Duration: 2 days (F2F), or 8 weeks (Postgraduate DL)

Price

For prices and further information, or to book a course, please contact **Vicky Billingham** at training@risktec.tuv.com

Contact

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