

MAINTENANCE AND ENGINEERING | COURSE BROCHURE

# Failure Modes and Effects Analysis for Equipment

5 days | Classroom training | English

**SMART HORIZON**

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London W2 6BD, United Kingdom

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# Course content

## Why attend

Failure Modes and Effects Analysis helps engineers anticipate how equipment can fail and what the consequences would be. This course teaches equipment FMEA: defining systems and functions, identifying failure modes, causes and effects, rating severity, occurrence and detection, prioritising risks and selecting maintenance and design actions.

Preventing failures is far cheaper than repairing them. You will learn a structured method to reduce equipment risk.

## Professional Problems This Course Is Designed to Solve

- Difficulty translating subject knowledge into practical workplace decisions.
- Inconsistent approaches to the activities covered in the course outline.
- Lack of a structured plan for applying and reviewing new skills.

## Course methodology

FMEA worksheets on real equipment, team workshops, case studies and action planning.

## Course objectives

By the end of this course, participants will be able to:

- Explain the purpose and types of FMEA
- Define equipment functions and boundaries
- Identify failure modes, causes and effects
- Rate severity, occurrence and detection
- Prioritise risks using RPN and criticality
- Define maintenance and design actions

## Target audience

This course is suitable for:

- Reliability and maintenance engineers
- Maintenance planners
- Design and process engineers
- Operations supervisors
- Asset managers



# Course content

## Target competencies

Participants will develop competencies in:

- Failure analysis
- Risk rating
- Team facilitation
- Maintenance strategy
- Documentation

## Course outline

### Day 1: FMEA Foundations

| | |
|---|---|
| **09:00–10:08** | Purpose and history |
| **10:08–11:00** | Types of FMEA |
| **11:00–11:30** | **Coffee break** |
| **11:30–11:45** | Types of FMEA (continued) |
| **11:45–12:53** | Team roles |
| **12:53–14:00** | Exercise |

### Day 2: Functions and Boundaries

| | |
|---|---|
| **09:00–10:08** | System definition |
| **10:08–11:00** | Functions and failures |
| **11:00–11:30** | **Coffee break** |
| **11:30–11:45** | Functions and failures (continued) |
| **11:45–12:53** | Block diagrams |
| **12:53–14:00** | Workshop |

### Day 3: Failure Modes

| | |
|---|---|
| **09:00–10:08** | Modes, causes and effects |
| **10:08–11:00** | Failure data sources |
| **11:00–11:30** | **Coffee break** |



# Course content

| | |
|---|---|
| **11:30–11:45** | Failure data sources (continued) |
| **11:45–12:53** | Worksheet practice |
| **12:53–14:00** | Exercise |

## Day 4: Rating and Prioritising

| | |
|---|---|
| **09:00–10:08** | Severity, occurrence and detection |
| **10:08–11:00** | RPN and criticality |
| **11:00–11:30** | **Coffee break** |
| **11:30–11:45** | RPN and criticality (continued) |
| **11:45–12:53** | Prioritisation |
| **12:53–14:00** | Case study |

## Day 5: Actions

| | |
|---|---|
| **09:00–10:08** | Maintenance tasks |
| **10:08–11:00** | Design changes |
| **11:00–11:30** | **Coffee break** |
| **11:30–11:45** | Design changes (continued) |
| **11:45–12:53** | Follow-up |
| **12:53–14:00** | Action plan |

The timings provided are estimates and may vary depending on the number of participants and the discussions taking place during the sessions. They are indicative only and do not constitute a binding commitment.



# Course content

## Dates, venues and fees

Current published course plans. Fees are per participant in GBP, excluding unconfirmed taxes.

| Venue | Start date | End date | Fee (GBP) |
|---|---|---|---|
| Rome<br>Confirmed dates | 16 Nov 2026 | 20 Nov 2026 | **£4,900.–** |
| Online<br>Confirmed dates | 16 Nov 2026 | 20 Nov 2026 | **£1,250.–** |
| Vienna<br>Confirmed dates | 7 Dec 2026 | 11 Dec 2026 | **£5,880.–** |
| Online<br>Confirmed dates | 7 Dec 2026 | 11 Dec 2026 | **£1,250.–** |
| Paris<br>Confirmed dates | 11 Jan 2027 | 15 Jan 2027 | **£5,720.–** |
| Online<br>Confirmed dates | 11 Jan 2027 | 15 Jan 2027 | **£1,250.–** |
| Vienna<br>Confirmed dates | 1 Feb 2027 | 5 Feb 2027 | **£5,880.–** |
| Online<br>Confirmed dates | 1 Feb 2027 | 5 Feb 2027 | **£1,250.–** |
| Frankfurt<br>Confirmed dates | 15 Feb 2027 | 19 Feb 2027 | **£5,300.–** |



# Course content

## Dates, venues and fees (continued)

| Venue | Start date | End date | Fee (GBP) |
|---|---|---|---|
| Online<br>Confirmed dates | 15 Feb 2027 | 19 Feb 2027 | **£1,250.-** |
| London<br>Confirmed dates | 8 Mar 2027 | 12 Mar 2027 | **£4,900.-** |
| Online<br>Confirmed dates | 8 Mar 2027 | 12 Mar 2027 | **£1,250.-** |
| Barcelona<br>Confirmed dates | 29 Mar 2027 | 2 Apr 2027 | **£5,680.-** |
| Online<br>Confirmed dates | 29 Mar 2027 | 2 Apr 2027 | **£1,250.-** |
| Dubai<br>Confirmed dates | 19 Apr 2027 | 23 Apr 2027 | **£6,300.-** |
| Online<br>Confirmed dates | 19 Apr 2027 | 23 Apr 2027 | **£1,250.-** |
| London<br>Confirmed dates | 10 May 2027 | 14 May 2027 | **£4,900.-** |
| Online<br>Confirmed dates | 10 May 2027 | 14 May 2027 | **£1,250.-** |



# Course content

## Dates, venues and fees (continued)

| Venue | Start date | End date | Fee (GBP) |
|---|---|---|---|
| Istanbul<br>Confirmed dates | 24 May 2027 | 28 May 2027 | **£5,300.-** |
| Online<br>Confirmed dates | 24 May 2027 | 28 May 2027 | **£1,250.-** |
| Barcelona<br>Confirmed dates | 14 Jun 2027 | 18 Jun 2027 | **£5,680.-** |
| Online<br>Confirmed dates | 14 Jun 2027 | 18 Jun 2027 | **£1,250.-** |
| Rome<br>Confirmed dates | 5 Jul 2027 | 9 Jul 2027 | **£4,900.-** |
| Online<br>Confirmed dates | 5 Jul 2027 | 9 Jul 2027 | **£1,250.-** |
| Dubai<br>Confirmed dates | 26 Jul 2027 | 30 Jul 2027 | **£6,300.-** |
| Online<br>Confirmed dates | 26 Jul 2027 | 30 Jul 2027 | **£1,250.-** |
| Amsterdam<br>Confirmed dates | 16 Aug 2027 | 20 Aug 2027 | **£5,080.-** |



# Course content

## Dates, venues and fees (continued)

| Venue | Start date | End date | Fee (GBP) |
|---|---|---|---|
| Online<br>Confirmed dates | 16 Aug 2027 | 20 Aug 2027 | **£1,250.-** |
| Cape Town<br>Confirmed dates | 30 Aug 2027 | 3 Sept 2027 | **£3,780.-** |
| Online<br>Confirmed dates | 30 Aug 2027 | 3 Sept 2027 | **£1,250.-** |
| Kuala Lumpur<br>Confirmed dates | 20 Sept 2027 | 24 Sept 2027 | **£2,900.-** |
| Online<br>Confirmed dates | 20 Sept 2027 | 24 Sept 2027 | **£1,250.-** |
| Rome<br>Confirmed dates | 11 Oct 2027 | 15 Oct 2027 | **£4,900.-** |
| Online<br>Confirmed dates | 11 Oct 2027 | 15 Oct 2027 | **£1,250.-** |
| Cape Town<br>Confirmed dates | 1 Nov 2027 | 5 Nov 2027 | **£3,780.-** |
| Online<br>Confirmed dates | 1 Nov 2027 | 5 Nov 2027 | **£1,250.-** |



# Course content

## Dates, venues and fees (continued)

| Venue | Start date | End date | Fee (GBP) |
|---|---|---|---|
| Dubai<br>Confirmed dates | 22 Nov 2027 | 26 Nov 2027 | **£6,300.-** |
| Online<br>Confirmed dates | 22 Nov 2027 | 26 Nov 2027 | **£1,250.-** |
| Cape Town<br>Confirmed dates | 6 Dec 2027 | 10 Dec 2027 | **£3,780.-** |
| Online<br>Confirmed dates | 6 Dec 2027 | 10 Dec 2027 | **£1,250.-** |

## Plan your next step

Dates, availability, exact venue, taxes, inclusions and payment terms require written confirmation. This brochure is not a quotation, registration, booking confirmation or visa invitation. Participants receive a Smart Horizon UK certificate of attendance; programmes are not externally accredited and do not award a professional qualification or designation. Confirm arrangements before booking travel.

For group or in-house training, contact our learning team to discuss your objectives and delivery arrangements.

## Contact Smart Horizon

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