

Design Failure Mode and Effects Analysis (DFMEA) 1 day / 2 days

Identify design risks before they become costly failures.

In today's environment of rapid product development, compressed timelines and increasing customer expectations, organisations can't afford to discover critical design weaknesses late in the lifecycle. Design Failure Mode and Effects Analysis (DFMEA) provides a structured, proactive approach to identifying and reducing risk during the design phase.

Unlike Process FMEA, which focuses on failures introduced during manufacturing or delivery processes, Design FMEA concentrates on the product or system design itself. It examines how a design could fail to meet functional, performance, safety or reliability requirements, enabling teams to address issues early when changes are less costly and easier to implement.

This practical programme provides the skills to apply DFMEA effectively within real product or service development environments. Participants learn how to identify potential failure modes, evaluate risk, prioritise actions and facilitate structured cross-functional reviews that strengthen design robustness, improve quality and support faster, more confident innovation.

What You'll Learn

By the end of this programme, you will be able to:

- Understand essential DFMEA concepts and terminology
- Follow the step-by-step DFMEA process flow with confidence
- Apply methodologies for risk assessment and mitigation within design
- Develop effective facilitation strategies for leading DFMEA sessions
- Apply DFMEA concepts to real-world scenarios and case studies
- Integrate DFMEA with related core quality tools and build action plans

Delivery Format

The programme is delivered in-company, either virtually or face-to face, and can be tailored to align with industry or in-house standards and tool templates. Practitioner training runs over two days, with a one-day option for leadership awareness, team awareness or practitioner refresh training.

Who Should Attend?

This programme is suitable for professionals involved in leading, facilitating, or contributing to DFMEA activities, including:

- Programme and product managers responsible for design delivery and risk management
- Design and engineering professionals involved in developing products or services

- Members of cross-functional teams contributing to DFMEA, including quality, operations, manufacturing, and service roles
- Anyone responsible for improving design robustness, reliability, and performance through structured risk analysis

Why Choose This Course?

Participants gain:

- A practical method for identifying and mitigating design risks early
- Greater confidence in preventing costly downstream issues and failures
- Tools to improve reliability, safety, performance, and launch readiness
- Reduced risk of rework, delays, and avoidable cost
- Stronger collaboration across design, engineering, and delivery teams
- 16 CPD points to support professional development

Course Content

This course introduces the fundamentals of Design Failure Mode and Effects Analysis (DFMEA), including its role in identifying and managing risk within product and service development. Participants learn how to develop and apply DFMEA using a range of practical tools and techniques, including:

- Scoping and structuring a DFMEA
- Integration of DFMEA with related methodologies
- Identification of failure modes, effects and causes
- Severity, Occurrence and Detection rating scales and risk prioritisation
- Risk evaluation using Risk Priority Number (RPN)
- Development of effective mitigation actions
- Strategies for reducing design risk and improving reliability
- Tools and techniques for effective facilitation and team engagement

Why Choose Catalyst?

Catalyst delivers results, not just services. We blend consulting, coaching, training, and AI-powered tools into a seamless support system that meets teams where they are, developing capability at every level.

Thousands trust us to support their learning and continuous improvement journeys. With over 30 years' experience in performance improvement training and consultancy, we make complex concepts practical, accessible, and engaging. Our short courses in quality and improvement tools are designed by experienced practitioners, ensuring content that is relevant and immediately applicable. We combine deep expertise with interactive delivery to help participants confidently apply what they learn. Catalyst is accredited by the British Quality Foundation and the Lean Competency System (LCS), and is recommended by the Chartered Quality Institute.