

FMEA Training Course Outline

UNIT 1 FMEA OVERVIEW

Lesson 1 | Introduction

- An overview of what an FMEA is; how the FMEA process works; and why an FMEA is used.

Lesson 2 | Purpose of an FMEA

- An explanation of how an FMEA helps identify risks, prioritizes the risks relative to one another, and focuses efforts on an action plan to reduce the risks.

Lesson 3 | Tie to Quality Standards

- An overview of the links between FMEAs and Quality Standards such as ISO 9001 and TS 16949.

Lesson 4 | DFMEA or PFMEA?

- An explanation of the differences between a Design-FMEA and a Process-FMEA.

Lesson 5 | The FMEA Process

- A preview of the 10 steps used to conduct an FMEA. The same basic steps apply to both a DFMEA and a PFMEA.

Lesson 6 | Assembling an FMEA Team

- Helpful hints on assembling an effective FMEA team.

Unit 1 Challenge

- An assessment of the learner's progress in this unit.

UNIT 2 DESIGN FMEAS

Lesson 1 | Design-FMEA Scope

- How to clarify the scope for a DFMEA.
- Details on how to use the DFMEA Scope Worksheet.

Lesson 2 | 10 Steps to Conduct a DFMEA

- Step-by-step directions on conducting a DFMEA.
- Guidance on the use of the FMEA Analysis Worksheet.
- Techniques for customizing the Severity, Occurrence, and Detection Ranking Scales for a DFMEA.

Lesson 3 | DFMEAs and Control Plans

- Using the DFMEA Analysis to develop input for a Process Control Plan.

Lesson 4 | Getting More Out of Your DFMEA

- Tips on the best times in a product's life cycle to conduct a DFMEA.
- Tips on how to use the results of an FMEA to trigger continuous improvement.

Lesson 5 | DFMEA Example

- An example of the application of a DFMEA, working through all 10 steps.

Unit 2 Challenge

- An assessment of the learner's progress in this unit.

UNIT 3 PROCESS FMEAS

Lesson 1 | Process-FMEA Scope

- How to clarify the scope for a PFMEA.
- Details on how to use the PFMEA Scope Worksheet.

Lesson 2 | 10 Steps to Conduct a PFMEA

- Step-by-step directions on conducting a PFMEA.
- Guidance on the use of the FMEA Analysis Worksheet.
- Techniques for customizing the Severity, Occurrence, and Detection Ranking Scales for a PFMEA.

Lesson 3 | PFMEAs and Control Plans

- Using the PFMEA Analysis to develop a proactive Control Plan.

Lesson 4 | Getting More Out of Your PFMEA

- Tips on the best times and places to conduct a PFMEA.
- Tips on how to use the results of an FMEA to trigger continuous improvement.

Lesson 5 | PFMEA Example

- An example of the application of a PFMEA, working through all 10 steps.

Unit 3 Challenge

- An assessment of the learner's progress in this unit.