

This course is based on Edition 2.0 of ISO 26262 and covers an overview and system level considerations, hardware, software and supporting information (safety analysis, dependent failures analysis, production considerations). Learn the basics of ISO 26262 with working examples, team exercises and our industry knowledge and experience.

Duration: 2 days

Language: English or German

Course Content

- › Module 1 - ISO 26262 Overview (half day)
- › Module 2 - ISO 26262 Hardware (half day)
- › Module 3 - ISO 26262 Software (half day)
- › Module 4 - ISO 26262 Supporting Infrastructure (half day)

Who Should Attend?

Functional Safety personnel, Automotive Engineers, Project Leaders, Project Managers, Quality Engineers, Hardware/ Software Developers

Prerequisites

This course is suitable for delegates with no prior knowledge of ISO 26262 or can be customised for a more experienced audience.

Training Schedule

Training typically runs for 8 hours each day, including a one hour lunch break and two shorter breaks in the morning and afternoon. This can be adapted as required to meet specific business requirements.

Price: £500 per person per day for a minimum of 2 and up to 7 participants. Thereafter a fixed rate will be charged for the training session.



To Book:

For a convenient and cost effective training solution, we can work with your organisation to develop bespoke training to meet your exact requirements.

To book this course or discuss customised training, please email us at info@lorit-consultancy.com or call us on +44 7708 360023.

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Module Content

Module 1 - ISO 26262 Overview (half day)

- › Definition of terms
- › Interpretation of tables
- › Safety plan - building the safety case
- › Item definition
- › Hazard Analysis & Risk Assessment
- › Functional Safety Concept
- › Safety Element out of Context
- › Technical Safety Concept
- › System level considerations
- › Implications of decomposition
- › Hardware/software interface specification
- › Safety validation
- › Item integration deriving test cases
- › Legal considerations and relation to other specifications e.g. SOTIF
- › Team exercises

Module 2 - ISO 26262 Hardware (half day)

- › Inductive vs deductive analysis - Fault Tree Analysis, Failure Modes and Effects Analysis
- › Diagnostic coverage - impact on safety analysis, methods of determining diagnostic coverage, FMEDA
- › Hardware safety requirements - requirements flow and traceability, architectural hardware requirements, detailed hardware requirements
- › Hardware metrics - evaluation of hardware architectural metrics, evaluation of safety goals due to random hardware failures
- › Component failure rates - sources of failure rate data, key variables that impact failure rates
- › Semiconductor and component considerations - common semiconductor safety mechanisms, tailoring analysis and techniques for use with semiconductors
- › Hardware integration and verification - hardware integration testing, verifying hardware safety requirements, verifying operation under external stresses

Module 3 - ISO 26262 Software (half day)

- › Software requirements
- › Software architectural design
- › Coexistence of elements
- › Software unit design and implementation
- › Software metrics
- › Software unit verification
- › Software integration and verification
- › Testing of embedded software
- › Software tool considerations
- › Configuration/calibration data
- › Automotive SPICE® process improvement
- › AUTOSAR
- › Cybersecurity
- › Agile software development

Module 4 - ISO 26262 Supporting Infrastructure (half day)

- › Decomposition with respect to ASIL tailoring
- › Coexistence of elements
- › Dependant failures analysis
- › Safety analysis
- › Qualification of software components
- › Evaluation of hardware elements
- › Proven in use arguments
- › Safety Culture as defined by ISO 26262
- › Configuration/Change/Document Management
- › Interfaces within distributed developments
- › Independence in reviews & assessments
- › Operation, service & decommissioning
- › Overview of parts 10, 11 and 12
- › Relationship to IATF 16949 & 9001