ONLINE SAFETY ACADEMY: DESIGNING FOR SAFETY CRITICAL SYSTEMS

At NXP, we believe in Vision Zero: zero accidents on the road. We know that safety doesn't evolve overnight, but it is achievable because organizations are committed to growing their safety expertise and competency.

Take the Safety Academy course to learn how to use NXP safety products and enablement collateral to simplify your ISO 26262 compliance, understand safety deliverables and how they can help accelerate your time to market.

With the online Safety Academy, NXP delivers a modular approach to learning more about safety. Whether you are a program manager or a hardware, software or system engineer, NXP's Safety Academy has options for you to follow dedicated training sessions that provide you with the answers you need to start designing more quickly for safety-critical applications.
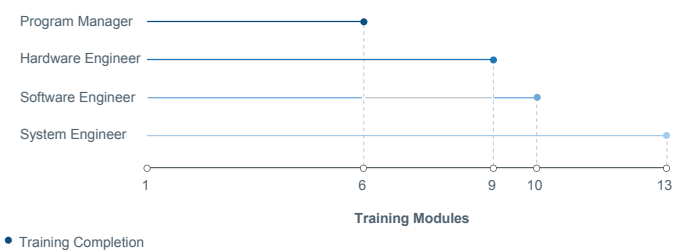
DEDICATED LEARNING PATHS

Because safety requires expert knowledge, we have developed different learning paths to deliver specialized training for you.

Program manager: Module 1 to Module 6

Hardware engineer: Module 1 to Module 9

Software engineer: Module 1-6 and Module 10

System engineer: Module 1 to Module 13

TRAINING MODULES

Module 1: Achieve ISO 26262 with NXP Safety Products and Solutions (introduction video)

Start with an overview of the overall training program, including the scope of each training path. It outlines what you need to learn to simplify your ISO 26262 development and explains each step along the individual training paths.

Module 2: Functional Safety Awareness

This webinar briefly introduces functional safety and provides an overview of the functional safety standards and applications. You will also learn how NXP helps simplify compliance to these standards with the SafeAssure® program.

Module 3: ISO 26262 Functional Safety Standard

Take the next step with an introduction to the ISO 26262 standard, an overview of the different parts and their scope. In particular, this webinar focuses on ISO 26262 part 2, project management, and ISO 26262 part 8, supporting process, and how NXP covers these parts through the NXP BcaM7 process.

Module 4: ISO 26262 Development Process with NXP Products (SEooC)

During this session we will describe how ISO 26262 safety-critical systems are designed with NXP products as safety elements out of context (SEooC), as well as the overall development process, and how you can efficiently reuse the NXP SEooC for your solution.

Module 5: NXP SafeAssure Portfolio

We will explain how you can find NXP safety products on our website and which types of safety deliverables are available. The partner ecosystem and the SafeAssure community will be introduced and we will provide an overview of the orderable system safety solutions.

Module 6: Program Manager Takeaways

This video wraps up the first modules and the program manager training path. It provides a summary of the key lessons learned.

Module 7: ISO 26262 Part 5: Product Development at Hardware Level

Dive deeper into the ISO 26262 hardware development process and the type of faults that the hardware can generate. We will describe how NXP implements its safety architecture and how faults at the system and product levels are addressed. We will illustrate with specific examples and explain how to use NXP safety deliverables to identify those faults.

Module 8: ISO 26262 Part 9: ASIL and Safety Analysis

Get an introduction to Part 9 of the ISO 26262 standard and the tools and process that are required to support the safety analysis. This session explains what NXP is doing for system safety solutions and which safety deliverables are available to ease this process.

Module 9: Hardware Engineer Key Takeaways

This video wraps up the learning path for the hardware engineer with key lessons learned.

Module 10: ISO 26262 Part 6: Product Development at the Software Level

The webinar gives an introduction to the ISO 26262 software development process, the safety-analysis-related process and tools for software. You will learn what NXP provides for software development and which steps need to be implemented by the customer.

Module 11: ISO 26262 Part 3 and Part 4: Concept and System Definition

We will describe the process covered by part 3, concept phase, and part 4, system level, of the ISO 26262 standard, identify roles and responsibilities for these steps and explain how NXP has implemented parts 3 and 4 for the system safety solutions using as an example the high-voltage traction inverter.

Module 12: NXP System Safety Solution: High-Voltage (HV) Traction Inverter

Explore the ISO 26262-compliant HV traction inverter system safety solution from NXP. We describe the tailored development including the assumptions taken and how the system follows the ISO 26262 process. Learn more about NXP's system safety solutions roadmap.

Module 13: System Engineer Key Takeaways

The video concludes the online Safety Academy. The last session for the system engineer summarizes key lessons learned.