

# AUTOSAR Adaptive Platform Course

Agenda VectorAcademy

<b>Delivery Format:</b>	This Course is offered in Classroom, Remote <b>or</b> Blended Learning Format. In the case of Blended Learning the content will be learned via E-Learning in a period of 3 weeks and there will be 5 accompanying remote sessions. Optionally, the Certified Embedded Associate (CEA.AP) Adaptive Platform exam can additionally be booked and completed.
<b>Duration:</b>	Classroom: 3 days Remote: 21 hours Blended Learning: approx. 32 hours of self-study + 9 hours of remote sessions (see schedule below)
<b>Target Group:</b>	Project Leader, Software Developers/Specialists, AUTOSAR ECU Developer and Integrators
<b>Prerequisites:</b>	Knowledge about software development for automotive systems, basic programming knowledge
<b>Goal:</b>	General view of AUTOSAR Adaptive Platform

## 1. Overview and Objectives

- > Motivation and aims
- > Organization and schedule

## 2. Methodology

- > Overview and data exchange formats

## 3. AUTOSAR Adaptive Application

- > Basic principles and technical concepts
- > AUTOSAR design elements

## 4. Execution Managements

- > Adaptive AUTOSAR startup behavior
- > Function groups and the machine states

## 5. Exercise 1: Create your first Adaptive Application

## 6. Service Oriented Communication

- > Service oriented communication principles
- > Service Discovery

## 7. Communication Management

- > Architecture

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## 8. Manifest

- > Methodology workflow
- > AUTOSAR Manifest file types

## 9. Exercise 2.1: Add ara::com Provider to Application

## 10. Exercise 2.2: Add ara::com Consumer to Application

## 11. Persistency

- > Key value storage
- > Files value storage

## 12. Exercise 3: Add ara::per to Application

## 13. Security

- > Secure communication
- > Cryptography

## 14. Functional Safety

- > General introduction
- > Safety concepts and features

## 15. Diagnostics Management

- > Unified Diagnostic Services

## 16. Exercise 4.1: Configuration of Diagnostic Manager

## 17. Exercise 4.2: Create and configure a DID

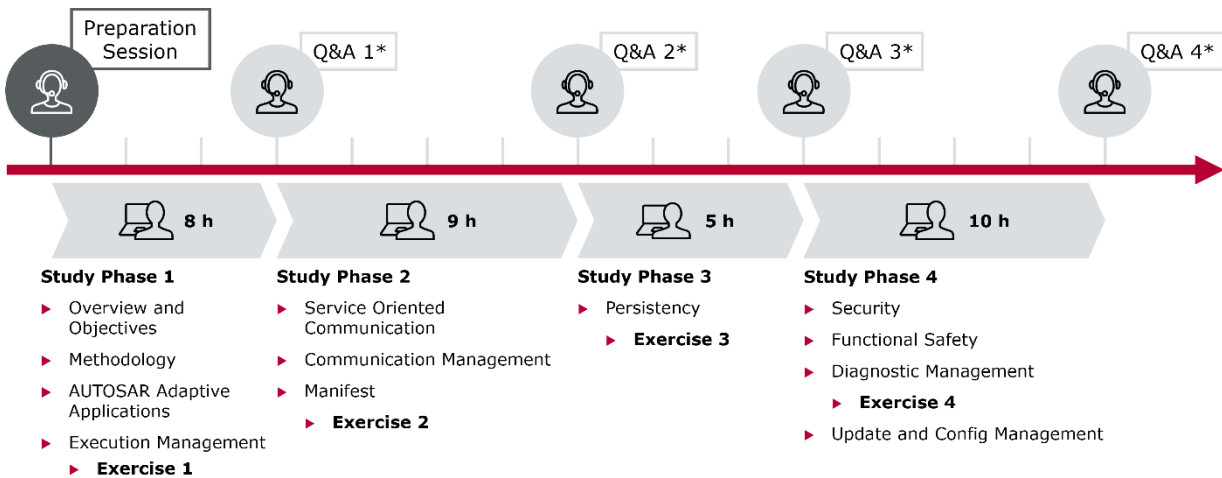
## 18. Update and Config Management

- > Software package
- > Software component

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## Schedule for Blended Learning:



\* For organizational reasons, the distribution of Q&A sessions may deviate slightly from this schedule. In this case, please refer to the session invitations for orientation. Of course, you can assume that the sessions are planned in such a way that an optimal learning progress is nevertheless made possible.