

Course Description

The ARM Accredited Engineer (AAE) Program is a global certification program that allows software and hardware developers to become ARM Accredited Engineers. It provides reliable and comprehensive industry-wide qualifications that employers can use as quality benchmarks for hiring new staff and measuring the success of training and development programs.

Course Outline

Course Part Number –MYPRO-EN001-AAE

Duration : 5 Days

Who Should Attend?

- Graduates, Engineering Students, Researchers, Lecturers and Professors.
- Engineers who wish to enhance their knowledge, skills in ARM Technology and to obtain ARM Accredited Engineer Certification.

Prerequisites

- A basic understanding of microprocessors or microcontrollers.
- A basic understanding of digital logic or ASIC design issues would be useful, but not essential.
- A basic understanding of assembler or C programming would be useful, but not essential.
- No prior knowledge of the ARM processor is assumed.

After completing this comprehensive training, you will have the necessary skills and knowledge to:

- Understand the Architecture, Software Development, Implementation, Software Optimization & Debug. Understand the practical work and gain an ARM Accredited Engineer (AAE) certification.

Module 1 – Architecture

- Architecture Overview
- Instruction Set
- Registers
- Versions and implementations
- Extensions
- Exceptions
- Memory Subsystem
- MMU/MPU
- Cache

Module 2 – Implementation

- ARMv4T
- ARMv5TE
- ARMv6
- ARMv7
- SecurCore
- Architecture Extensions
- Pipelines
- Cycle Counting

Module 3 – Systems

- Cache coherency hardware
- GIC architecture

- Power Management
- Memory System Hierarchy
- Software Storage and Upload

Module 4 – Software Development

- Libraries and Linkage
- Target platforms, Memory ordering models
- Barriers and synchronization & Cache policies
- Operating system support & Booting

Module 5 - Software Debug

- Debug hardware & Invasive Debug
- Non-invasive Debug, Standard Debug Techniques & Timing

Module 6 - Software Optimization

- Coding techniques & Profiling

Examination

- The exam was developed at ARM Ltd in the UK by a team of world-leading ARM subject matter experts and consists of 70 multiple-choice, English-language questions. You will have 90 minutes (under exam conditions) to complete all 70 questions.
- The test is delivered by Prometric Inc. as a supervised, computer-based-test on dedicated test platforms throughout their network of 10,000 Authorized Prometric Testing Centers (APTCs) around the world.

Register Today

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