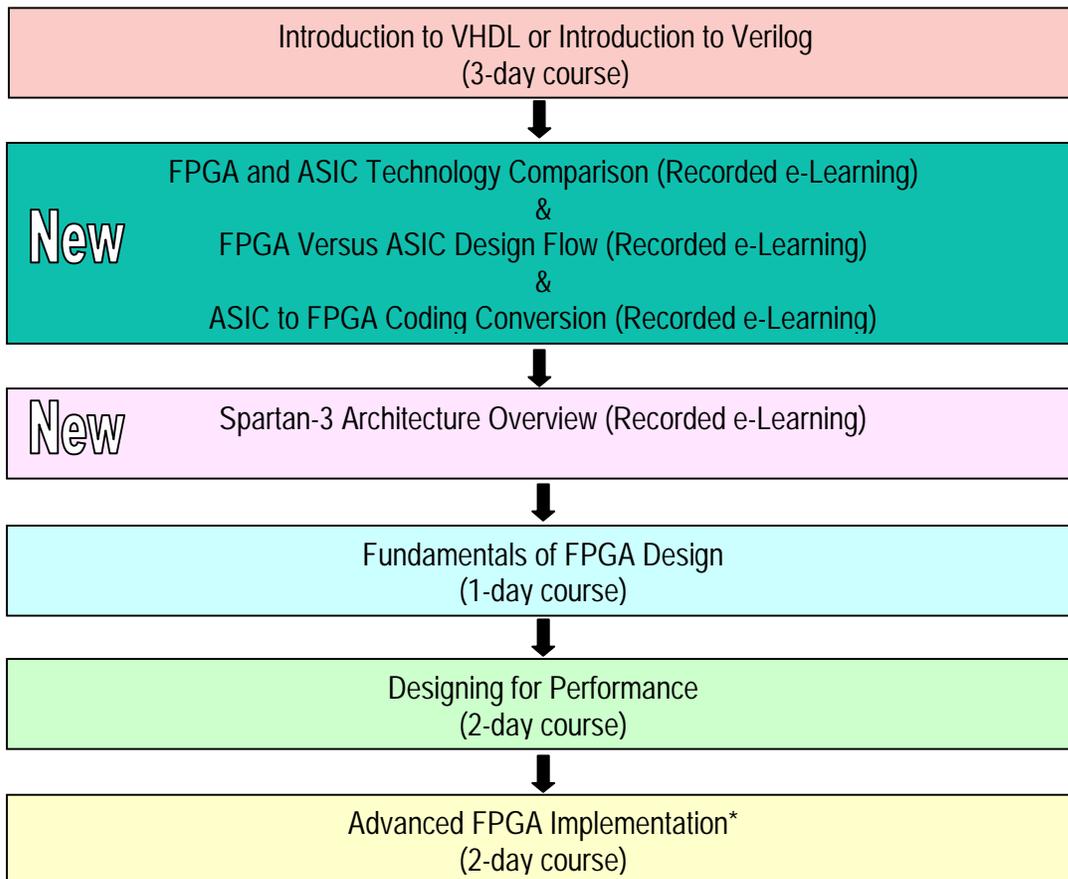




Xilinx Education Services has expanded the curriculum path for the ASIC designer, which now includes four *New* recorded e-Learning technical lectures.

These four lectures are on the Xilinx Education home page, Xilinx.com/education, as of May 5th. Anyone can access these modules 24 hours a day, 7 days a week. There is no charge for viewing these modules.

ASIC Curriculum Path



Overview of Four Lectures for the ASIC User

Module 1: FPGA and ASIC Technology Comparison

Objectives

- Describe differences between ASIC and FPGA architectures and describe how these differences affect coding style, implementation, and product selection
 - Gate conversion
 - Delays
 - Frequency comparison
- Discuss reconfigurability

Associated Lab: Pipelining Lab

- Implement and analyze timing for an HDL-coded multiplier
- Implement and analyze a Coregen multiplier core

Module 2: FPGA Versus FPGA Design Flow

Objectives

- Describe key differences between the ASIC and FPGA design flows
 - Design methodology
 - Verification techniques
 - Test generation logic
 - Tools

Associated Lab: NONE

Module 3: ASIC to FPGA Coding Conversion

Objectives

- Optimize ASIC code for implementation in Xilinx FPGAs
 - Xilinx special resources
 - Xilinx combinatorial resources
 - Xilinx synchronous resources
 - Intellectual Property (IP)
- Describe the steps to perform ASIC-to-FPGA code conversion

Associated Lab:

- Describe how improper multiplexer coding can generate slow and unreliable circuits
- Write code to implement a multiplexer implemented with 3-state buffers
- Describe why certain multiplexer styles are faster and more area-efficient

Lab Exercises:

Two self-paced labs, or tutorials, that compliment two of ASIC lectures will be provided. Both labs will be downloadable and printable.

Module 4: “Spartan-3 Architecture” e-Learning Module

This technical lecture focuses on the following topics:

- Spartan™-3 architecture features and a comparison of Spartan-3 architecture to existing Xilinx FPGA families
- Product family overview (product matrix)
 - Software support and Prom Support