



Learning Maps

Cadence Training Services learning maps provide a comprehensive visual overview of the learning opportunities for Cadence customers. They provide recommended course flows as well as tool experience and knowledge levels to guide students through a complete learning plan. Learning Maps cover all Cadence® technologies and reference courses available worldwide. For course names, descriptions, and schedules, please select the Browse Catalog button at <https://www.cadence.com/training>.

Contents

- PCB Design and Analysis
- Custom IC, Analog, and RF Design
- Digital Design and Signoff
- System Design and Analysis
- IC Package Design and Analysis
- Mixed Signal Modeling and Verification
- Computational Fluid Dynamics
- Safety and Reliability Platform
- Tensilica® Processor IP
- Onboarding

PCB Design and Analysis Learning Map

Beginner

Advanced




Beginner




Advanced

Logic Design

Allegro® X Design Entry HDL Front-to-Back Flow   



Allegro X Design Entry HDL Basics   

Allegro X System Capture Basics   

Allegro X System Capture   

Allegro Design Reuse  

Analog Simulation with PSpice® using Design Entry HDL   




OrCAD® X Capture   

OrCAD CIS 

OrCAD X Capture Constraint Manager PCB Flow    

Allegro EDM Design Entry HDL Front-to-Back Flow  


Analog Simulation with PSpice®   


Analog Simulation with PSpice® using System Capture   




PCB Design

OrCAD X Presto Basic Techniques   

Allegro X PCB Editor Basic Techniques   

Allegro X PCB Editor Intermediate Techniques   

Allegro X PCB Router Basics   

Allegro X PCB Editor Advanced Methodologies   


Allegro X High-Speed Constraint Management   

Allegro DesignTrue DFM    

Allegro X Update Training  




Advanced Design Verification with the RAVEL Programming Language   

SI/PI Analysis




Essential High-Speed PCB Design for Signal Integrity 





PCB Design at RF – Multi-Gigabit Transmission, EMI Control, and PCB Materials 




Sigrity Aurora   

Sigrity PowerDC™ and OptimizePI™   

SystemSI for Parallel Bus and Serial Link Analysis   




Model Generation and Analysis using PowerSI and Broadband SPICE   




Clarity 3D Solver    



Celsius Thermal Solver   




Library Development

DE-HDL Library Development using DE-HDL   

DE-HDL Library Development using Allegro X System Capture    

Allegro X EDM PCB Librarian   

Allegro Design Entry HDL SKILL® Programming Language  

Allegro X PCB Editor SKILL Programming Language   

 New Course

 #

Number of days for instructor-led course



Accelerated Learning Path Course



Online Course Available



Digital Badge Available

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IC Package Design and Analysis Learning Map

Beginner

Advanced

IC Package Design

Allegro® X Advanced Package Designer



Allegro Sigrity Package Assessment and Model Extraction



OrbitIO™ System Planner



Advanced Design Verification with the RAVEL Programming Language NEW



Designing with Integrity 3D-IC



SI/PI Analysis

Sigrity Aurora



Sigrity PowerDC™ and OptimizePI™



SystemSI for Parallel Bus and Serial Link Analysis



Model Generation and Analysis using PowerSI and Broadband SPICE



Clarity 3D Solver NEW



Celsius Thermal Solver



Beginner

Advanced

NEW

New Course



Number of days for instructor-led course



Online Course Available



Digital Badge Available

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Beginner

Advanced

Beginner

Advanced

Circuit Schematic and Design Creation

Virtuoso Schematic Editor



Virtuoso® ADE Explorer & Assembler Series

S1 ADE Explorer & Single Test Corner Analysis



S2 ADE Assembler & Multi Test Corner Analysis



S3 Sweeping Variables and Simulating Corners



S4 Monte Carlo, Real-Time Tuning & Run Plans



Virtuoso Visualization and Analysis



Spectre Simulations

Spectre® Simulator Fundamentals Series

S1 Spectre Basics



S2 Large-Signal Analyses



S3 Small-Signal Analyses



S4 Spectre MDL



Design Checks and Asserts



High-Performance Spectre Simulation (APS, Spectre X)



Spectre FX Simulator



Spectre FMC in Virtuoso ADE



Virtuoso® Spectre® Pro Series

S1 DC Algorithm



S2 Transient Algorithm



Virtuoso Spectre Transient Noise



Design Verification

Virtuoso® ADE Verifier Series

S1 Setup, Run, & View Verifier Results



S2 Reference Flow and Analog Coverage Using the Setup Library Assistant



Reliability Analysis

Reliability Analysis in Virtuoso Studio



Accelerated Learning Path Course



New Course



Number of days for instructor-led course



Tiers of Cadence products used in course



Online Course Available



Digital Badge Available

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Beginner

Beginner

RF Design and Simulations




Virtuoso Schematic Editor     

Virtuoso® ADE Explorer & Assembler Series

S1 ADE Explorer & Single Test Corner Analysis   

S2 ADE Assembler & Multi Test Corner Analysis   

Spectre® Simulator Fundamentals Series

S1 Spectre Basics   

S2 Large-Signal Analyses   

S3 Small-Signal Analyses   

Spectre® RF Series

RF Analysis Using Shooting Newton   

RF Analysis Using Harmonic Balance   

System Design

5G mmWave Handset System Design –
S1 Simulation and Verification of the RFIC
(Transceiver)   

AWR Microwave Design

Microwave & RF Design (AWR®)

Microwave Office for RF Designers   

Planar EM Analysis in AWR Microwave Office    

Advanced

Advanced

NEW

New Course



Number of days for instructor-led course



Tiers of Cadence products used in course



Online Course Available



Digital Badge Available

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Beginner
↓
Advanced

IC CAD

SKILL® Language Programming Introduction ✓ 2

SKILL Language Programming ✓ 5

SKILL Development of Parameterized Cells ✓ 2

Advanced SKILL Language Programming NEW 3

Physical Design and Advanced Nodes

Virtuoso® Layout Design Basics ✓ L 1

Virtuoso Connectivity-Driven Layout Transition ✓ L XL GXL EXL 2

Virtuoso Abstract Generator GXL 1

Virtuoso Floorplanner GXL 1

Virtuoso® Advanced-Node – ICADVM

Virtuoso Layout for Advanced Nodes 2

T1: Place and Route ✓ 1 NEW

T2: Electromigration ✓ 0.5

Virtuoso Layout for Advanced Nodes and Methodology Platform ✓ EXL 0.5

Virtuoso® Layout Pro Series

T1: Env. and Basic Commands ✓ L 1

T2: Create and Edit Commands ✓ L 1

T3: Basic Commands ✓ XL 1

T4: Advanced Commands ✓ XL 1

T5: Interactive Routing ✓ XL 1

T6: Constraint-Driven Flow and Power Routing ✓ XL GXL 1

T7: Module Generator and Floorplanner ✓ XL GXL 1

T8: Concurrent Layout Editing ✓ EXL 1

T9: Virtuoso Design Planner ✓ EXL 2

Physical Verification

Pegasus Verification System NEW ✓ 2

Physical Verification System ✓ 2

Physical Verification Language Rules-Writer NEW ✓ 2

Quantus™ Extraction Solution Transistor-Level Series

T1: Overview and Technology Setup ✓ 0.5

T2: Parasitic Extraction ✓ 1

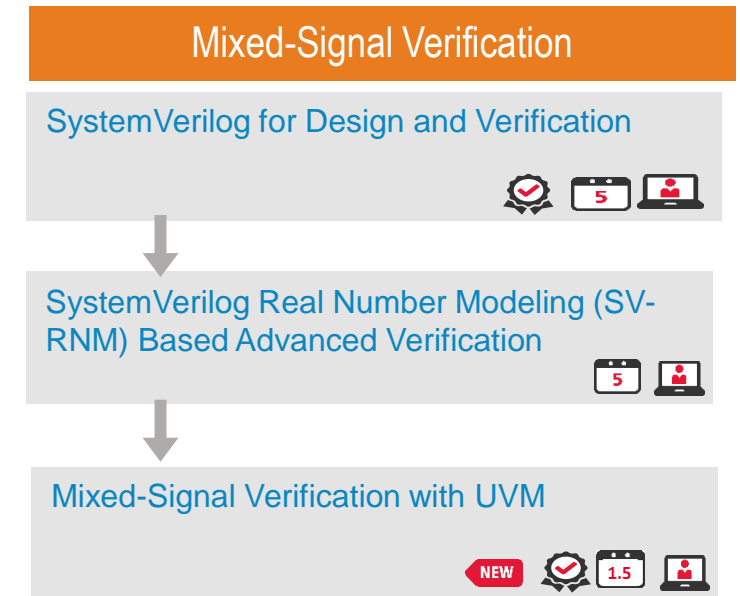
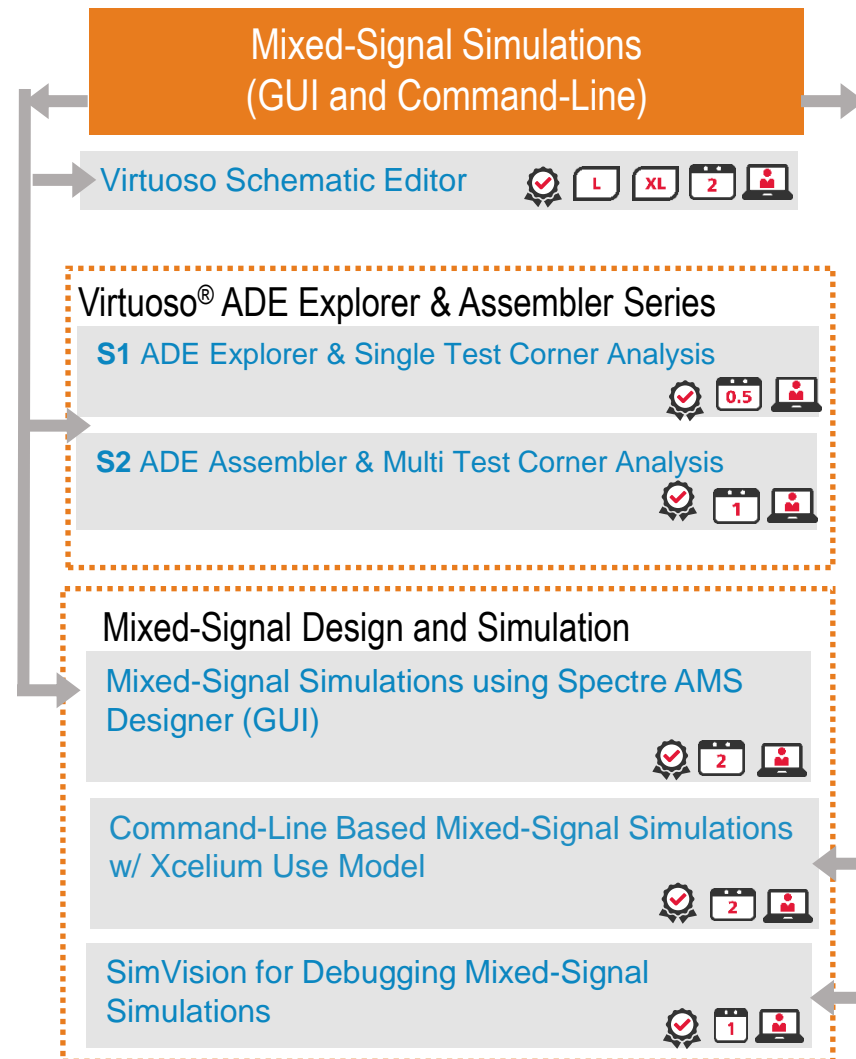
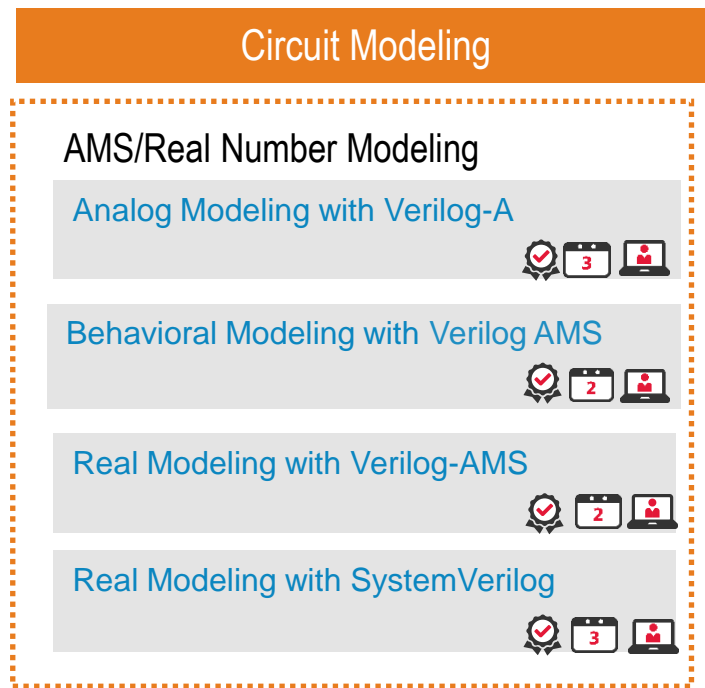
T3: Extracted View Flows and Advanced Features ✓ 0.5

Beginner
↓
Advanced

Mixed-Signal Modeling, Simulation and Verification Learning Map

Beginner

Advanced



Beginner

Advanced



New Course



Number of days for instructor-led course



Tiers of Cadence products used in course



Online Course Available



Digital Badge Available

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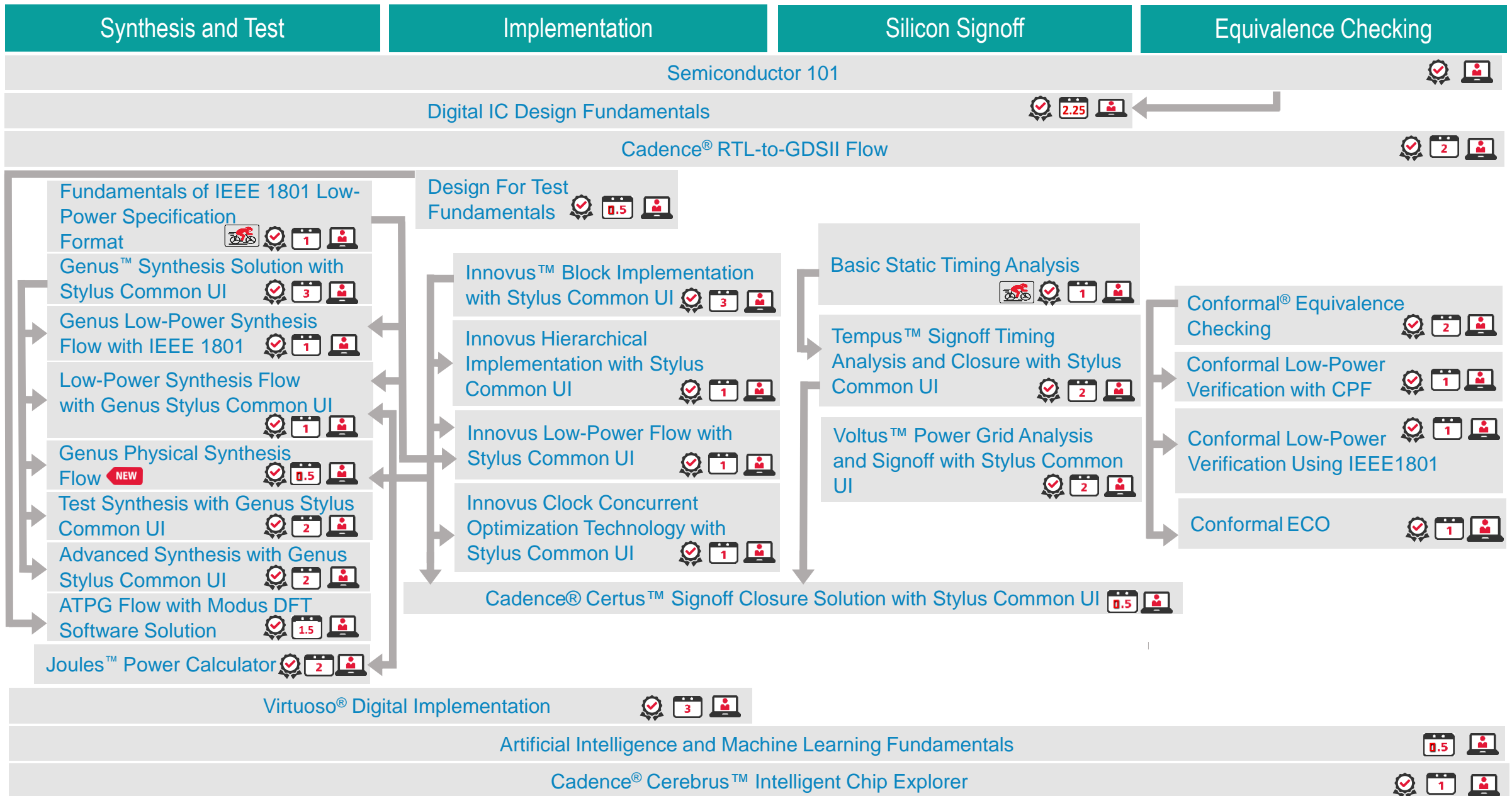
Digital Design and Signoff Learning Map

Beginner

Advanced

Beginner

Advanced



System Design and Verification Learning Map

Beginner

Advanced

Beginner

Advanced

Simulation, Coverage and Debug

Digital IC Design Fundamentals

NEW



Xcelium™ Simulator

NEW



Protium™ Introduction

NEW



Palladium® Introduction

NEW



Cadence® RTL-To-GDSII Flow



Low-Power Simulation with CPF



Low-Power Simulation with IEEE1801 UPF



VIP Basic Building Blocks and Usage

NEW



UCIe VIP Introduction

NEW



Foundations of Metric-Driven Verification



Xcelium Integrated Coverage



Verisium™ Manager

NEW



vManager Tool Usage in Batch Mode



Verisium™ Debug

NEW



Perspec™ System Verifier - Basic

NEW



Xcelium Fault Simulator

NEW



Specman® Fundamentals for Block-Level Environment Developers



Specman Advanced Verification




NEW New Course

Number of days for instructor-led course

 Accelerated Learning Path Course

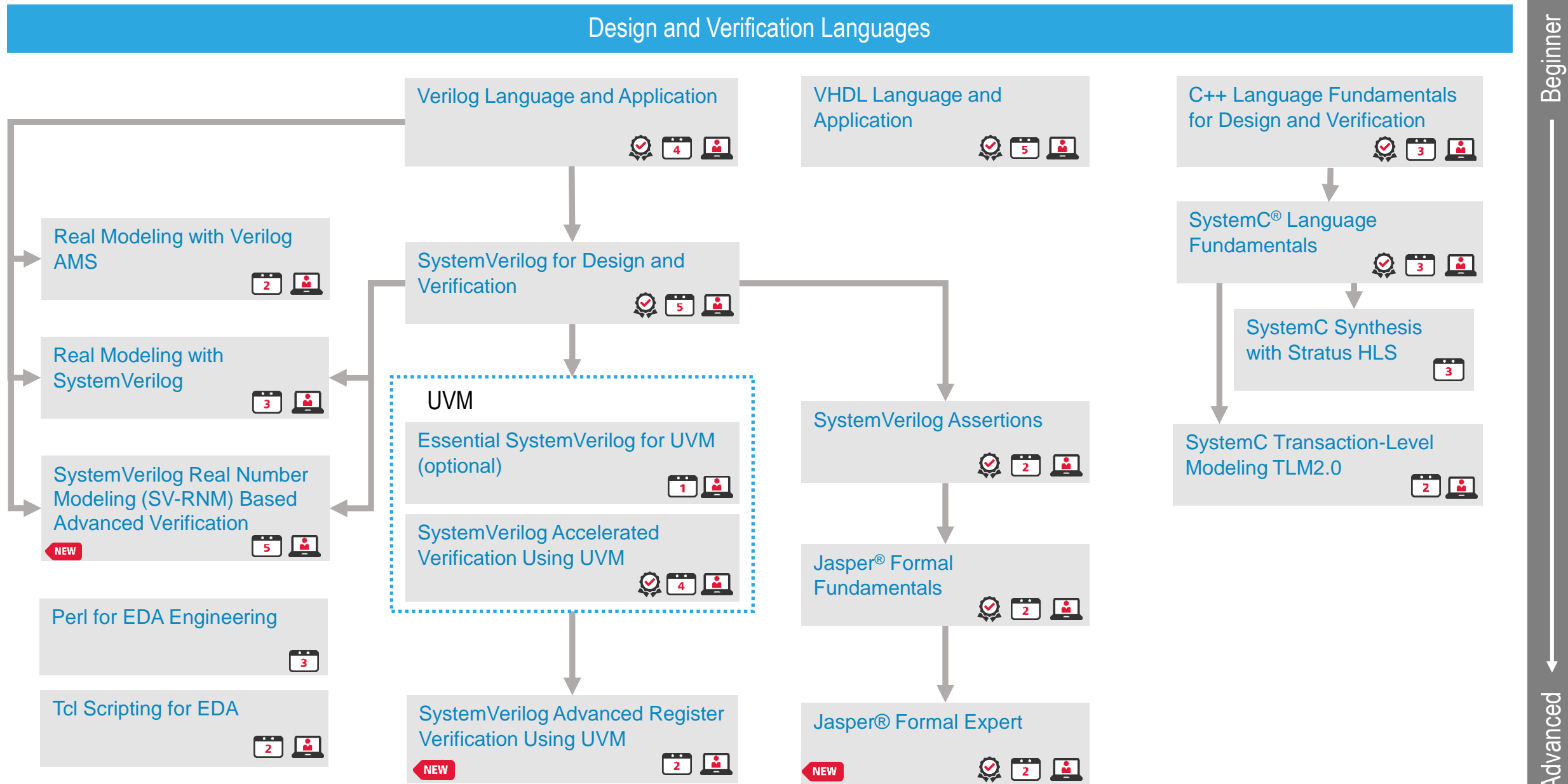
 Online Course Available

 Digital Badge Available

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System Design and Verification Learning Map

Beginner



Beginner

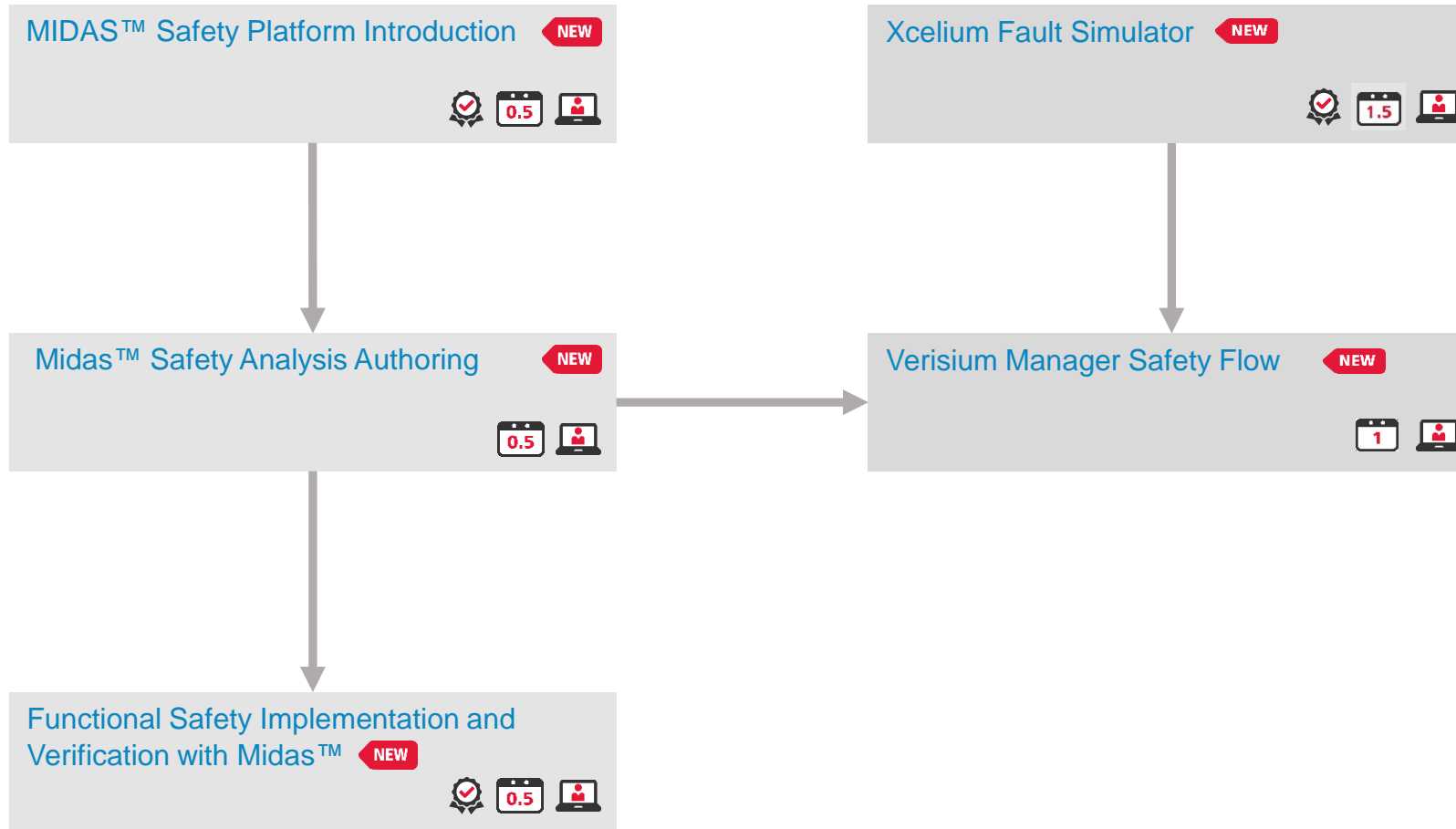
Advanced

Safety and Reliability Platform Learning Map

Beginner

Beginner

MIDAS Safety Platform



Advanced

Advanced



New Course



Number of days for instructor-led course



Accelerated Learning Path Course



Online Course Available



Digital Badge Available

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Tensilica Processor IP Learning Map

1 of 2 – see next page



Tensilica Xtensa LX

ConnX DSP

Fusion & FloatingPoint DSP

HiFi Audio DSP

Vision DSP

Tensilica® Xtensa® LX
Processor Fundamentals



Tensilica Xtensa LX
Processor Interfaces



Tensilica Xtensa LX
Hardware Verification and
EDA



Tensilica Instruction
Extension Language and
Design



Tensilica System
Modeling using XTSC



Tensilica ConnX BBE16EP
Baseband Engine



Tensilica ConnX BBE32EP
Baseband Engine



Tensilica ConnX BBE64EP
Baseband Engine



Tensilica ConnX 110 and
120 DSP Family



Tensilica Fusion F1 DSP



Tensilica Fusion G3 DSP



Tensilica Fusion G6 DSP



Tensilica FloatingPoint
DSP Family



Tensilica Audio Codec API



Tensilica HiFi 2/EP/Mini
Audio Engine ISA



Tensilica HiFi 3 Audio
Engine ISA



Tensilica HiFi 4 DSP



Tensilica HiFi 5 DSP



Tensilica Xtensa Audio
Framework



Tensilica Vision DSP Family



Tensilica Xtensa Neural
Network Compiler v2



Tensilica DNA 100
Architecture and
Programming



NEW

New Course



Number of days for instructor-led course



Online Course Available

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Tensilica Xtensa NX

ConnX DSP

Vision DSP

Tensilica® Xtensa® NX
Processor Fundamentals



Tensilica Xtensa NX
Processor Interfaces



Tensilica Xtensa NX
Hardware Verification and
EDA



Tensilica Instruction
Extension Language and
Design



Tensilica System
Modeling using XTSC



Tensilica ConnX B10
DSP



Tensilica ConnX B20
DSP



Tensilica Vision DSP Family



Tensilica Xtensa Neural
Network Compiler v2



Computational Fluid Dynamics

Beginner

Advanced

Beginner

Advanced

CFD Academy

CFD Online Course



Fidelity

Turbomachinery

Meshing

Auto Aero

Fidelity Turbo: Introduction



Fidelity Automesh for Unstructured Meshing



Fidelity Flow



Fidelity Pointwise Meshing Foundations



Fine

Marine

Fine Marine for Beginners



Fine Marine for Advanced Users



NEW

New Course



Number of days for instructor-led course



Online Course Available



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Onboarding Curricula

Beginner
↓
Advanced

PCB Design

PCB Layout Designer Onboarding



Schematic Capture for EEs Onboarding



Custom IC, Analog, and RF Design

Analog Circuit Design and Simulation Onboarding



Virtuoso Layout Onboarding



Digital Design and Signoff

Semiconductor 101



Digital IC Design Fundamentals



Cadence® RTL-to-GDSII Flow



System Design and Verification

Beginner
↓
Advanced

See also: https://www.cadence.com/en_US/home/training/bridging-the-learning-gap/onboarding-curricula.html

NEW

New Course



Number of days for instructor-led course



Online Course Available



Digital Badge Available

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