Training and Certification Catalog

2025 Edition

Learn Faster. Validate Skills. Engineer Possibilities.

With a wide variety of learning resources delivered by technical experts, NI is committed to ensuring your success with our products and services, no matter the industry or application area. Start your learning journey today by exploring NI's training and certification offerings.

Whether you are new to NI products or have been using them for years, access to the right learning resources when you need them is critical to your success. NI provides a comprehensive education service to advance your current application and support you at every stage of your career.

This program is the most effective way to increase productivity, reduce development time, and improve your ability to engineer robust, maintainable applications with NI products. It's also individually tailored to fit your schedule, work on your terms, and deliver core competency for beginners and experts alike.

More than 40 years providing education services

90% customer satisfaction

92% of our customers recommend our courses

SOURCE: GLOBAL COURSE SURVEY, FROM JANUARY TO SEPTEMBER 2021.

Follow your path. Find your success.

Increased productivity with NI tools starts with a clearly defined plan outlining your goals and application areas. You can then work with NI to identify the best strategies for acquiring and validating skills to take your productivity to the next level.

Learning paths are designed to help you navigate the learning resources available in your application area. Throughout each learning path, you can leverage assessments to identify the learning content you need to successfully develop applications.

Customize a learning path to your needs by choosing optional courses and topics, preferred learning format, and frequency of engagement with the materials.

DEVELOP NI LABVIEW APPLICATIONS

Go from developing basic applications in the LabVIEW graphical programming environment to architecting large applications in single- or multideveloper settings.

EMBEDDED MEASUREMENT, CONTROL, AND MONITORING

Learn how to rapidly design, prototype, and deploy embedded control and monitoring systems using LabVIEW Real-Time, LabVIEW FPGA, and NI customizable off-the-shelf hardware.

DEVELOP AUTOMATED PRODUCTION TEST SYSTEMS

Learn how to develop and manage test applications in the NI TestStand environment, distribute them to test stations, build test code for your hardware and devices under test, and log test results to a database.

DEVELOP HARDWARE-IN-THE-LOOP TEST SYSTEMS

Develop a real-time test system and create a run-time editable user interface with NI VeriStand or the HIL and Real-Time Test Software Suite.

PC-BASED DATA ACQUISITION AND DATA LOGGING

Acquire the skills to configure your DAQ hardware, perform accurate single-point and continuous measurements, and synchronize your data acquisition.

INSTALL, SET UP, AND CONTROL NI MODULAR INSTRUMENTS

Learn the complete test workflow for your instrument, from configuration and cabling to control, calibration, debugging, and optimizing for speed and precision.

MANAGE DATA WITH NI DIADEM

Learn how to view and graphically investigate data, automate report generation, and extend the capabilities of DIAdem.

SEMICONDUCTOR TEST SYSTEM CURRICULUM

Learn how to develop and debug configuration-based test programs, create custom measurements, and optimize advanced test programs for mixed-signal and RF devices using the NI Semiconductor Test System (STS).

MANAGING SYSTEMS AND DATA USING NI SYSTEMLINK™ SOFTWARE

Use SystemLink™ Server or SystemLink™ Enterprise to manage test systems, deploy software, manage hardware assets, and collect and analyze test results.

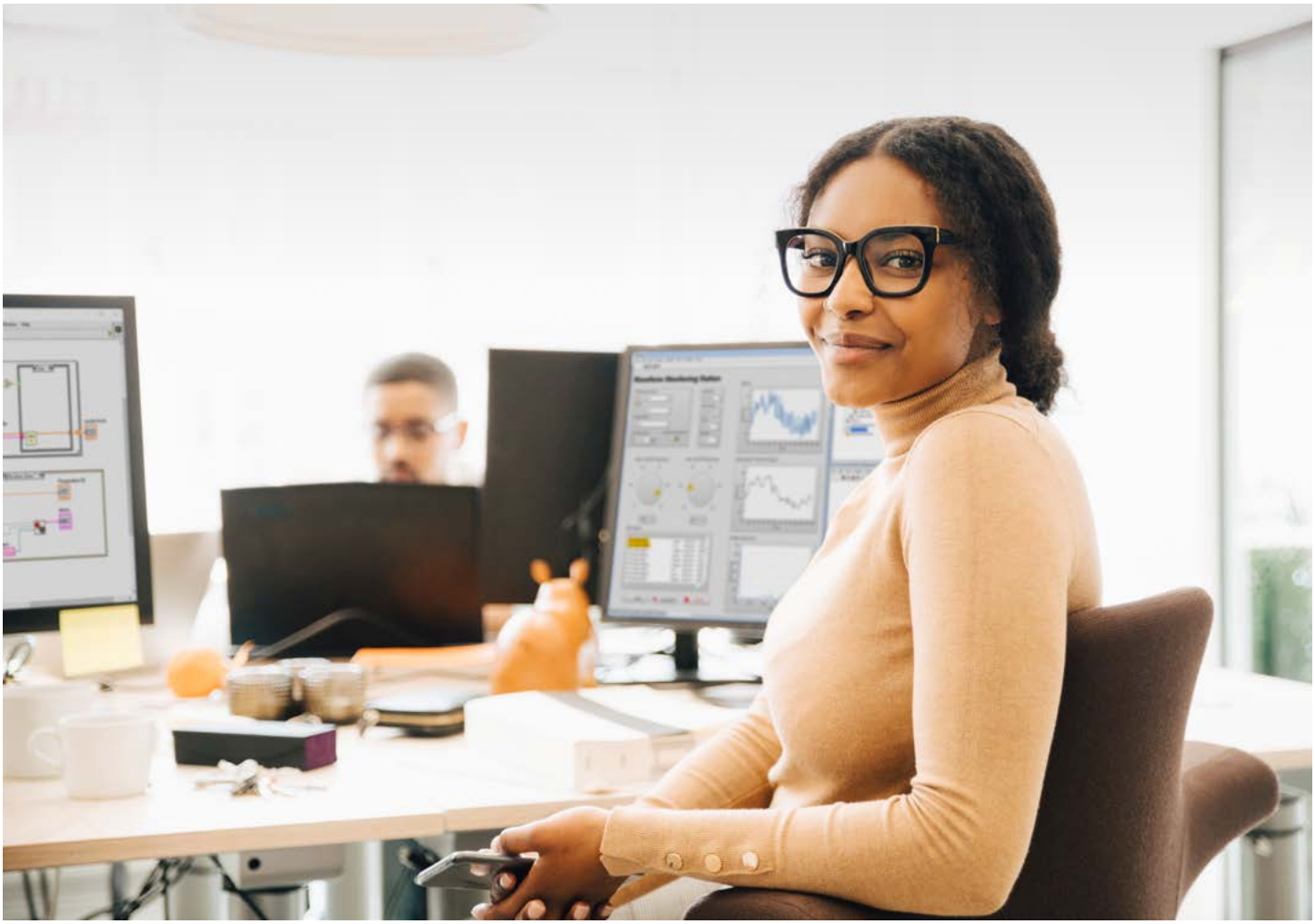
NI OPTIMALPLUS SOLUTIONS

Explore the OptimalPlus solution and the power of big data analytics to improve yield and productivity.

Common Learning Paths

Find the training courses, certification exams, and proficiency events to meet your application needs using the following customized learning paths. These paths were developed around the recommended skill levels and additional areas of interest someone with this application might have.

Use the descriptions to the right of the learning path to help you determine how far along the path to progress. Keep in mind that many of our courses are available in both instructor-led and on-demand formats. For your consideration, optional courses, exams, events, and assessments have been included at the bottom of each path and can be used anytime to help you customize your learning to your needs.



Develop LabVIEW Applications

Reduce development time and costs through faster learning and increased productivity with LabVIEW. This learning path is for engineers developing applications using LabVIEW. It presents the courses, exams, and events to help you go from developing basic applications in the LabVIEW graphical programming environment to architecting large applications in single- or multiple-developer settings. Discover recommended techniques to successfully develop applications that can scale as your projects evolve.

GETTING STARTED

Technicians or basic developers using LabVIEW to develop, support, or troubleshoot a small-to-medium application can learn to apply basic design patterns and troubleshoot or debug LabVIEW code.

01 LabVIEW Core 1 + LabVIEW Core 2 + CLAD Exam

Explore the LabVIEW environment, dataflow programming, and common LabVIEW development techniques in a hands-on format.

Design, implement, and distribute stand-alone applications using LabVIEW and apply single- and multiple-loop design patterns for application functionality.

Certified LabVIEW Associate Developers demonstrate a working knowledge of the LabVIEW environment, a basic understanding of coding and documentation best practices, and the ability to understand and interpret existing code.

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Software engineers who need to design and develop a medium-to-large application with more than one process will learn to evaluate file formats, create executables, handle errors during execution, and design to user requirements.

02 LabVIEW Core 3 + CLD Exam

Learn structured best practices to design, implement, document, and test LabVIEW applications.

The second LabVIEW certification exam validates the ability to design and develop functional programs while minimizing development time and ensuring maintainability through proper documentation and style.

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Software architects designing the application architecture or acting as technical lead or project manager for a large application can learn to leverage the appropriate tools and techniques to manage development; design, develop, and document a clean API; and analyze the architecture of a LabVIEW application for improvement.

03 Software Engineering for Test Applications + CLA Exam[1]

Learn common practices for managing large team-oriented application development projects.

The third and highest level of LabVIEW certification demonstrates mastery in architecting and project-managing LabVIEW applications.

[1]CLA Exam requires a valid CLD to attempt.

ADDITIONAL OPTIONS

LabVIEW Connectivity

LabVIEW Interoperability

Object-Oriented Design and Programming in LabVIEW

Actor-Oriented Design in LabVIEW

BADGE ASSESSMENTS

LabVIEW Programming

LabVIEW Application Development

Embedded Measurement, Control, and Monitoring

This learning path is for users developing embedded control and monitoring systems. It presents courses, exams, and events that teach you how to design, prototype, and deploy reliable and deterministic embedded systems using LabVIEW. Consider this path if you are using the Embedded Control and Monitoring Software Suite, the LabVIEW Real-Time Module, or the LabVIEW FPGA module with NI CompactRIO, Single-Board RIO, PXI, or R Series multifunction reconfigurable I/O devices.

GETTING STARTED

For those designing, prototyping, and deploying embedded control and monitoring applications, LabVIEW Core courses introduce the LabVIEW environment, communication mechanisms, and development techniques.

01

LabVIEW Core 1
+
LabVIEW Core 2
+
CLAD Exam

Explore the LabVIEW environment, dataflow programming, and common LabVIEW development techniques in a hands-on format.

Design, implement, and distribute stand-alone applications using LabVIEW and apply single- and multiple-loop design patterns for application functionality.

Certified LabVIEW Associate Developers demonstrate a working knowledge of the LabVIEW environment, a basic understanding of coding and documentation best practices, and the ability to understand and interpret existing code.

Translate system requirements into a scalable software architecture, choose appropriate methods for interprocess and network-based communication, design for reliability, and efficiently deploy and replicate your embedded system.

02

Developing Embedded Applications Using CompactRIO and LabVIEW Real-Time
+
Developing Embedded Applications Using CompactRIO and LabVIEW FPGA
+
CLED Exam[1]

Learn how to efficiently design, prototype, and deploy a reliable embedded control and monitoring application.

Extend the functionality of your CompactRIO system by using LabVIEW FPGA.

Certified LabVIEW Embedded Systems Developer Certification demonstrates proficiency and expertise in analyzing requirements for and designing, developing, debugging, and deploying reliable mission-critical embedded control and monitoring applications.

[1]CLED Exam requires a valid CLD or CLA certification to attempt.

ADDITIONAL OPTIONS

Developing Deterministic Applications Using LabVIEW Real-Time (on-demand)

Developing Custom FPGA Code Using LabVIEW FGPA (on-demand)

LabVIEW Core 3

CLD Exam

Develop Automated Production Test Systems

This learning path is for engineers building manufacturing test or production test applications with LabVIEW+ or TestStand. It presents the courses, exams, and events that teach you to develop practical test applications in the TestStand environment and distribute them to test stations, build test code for your hardware and devices under test, and log test results to a database.

GETTING STARTED

Test developers building code modules for individual components of a DUT or defining hardware connections for the test station should familiarize themselves with the programming environment and hardware functions through the relevant training courses.

01 LabVIEW Core 1 + Hardware Training + CLAD Exam

Explore the LabVIEW environment, dataflow programming, and common LabVIEW development techniques in a hands-on format.

Hardware training: Learn to install, configure, and program your NI hardware with a wide variety of available training courses.

View on-demand PXI training at learn.ni.com/catalog.

(This step is optional for those NOT developing code modules or who work in text-based languages.)

Technicians and test system designers using TestStand as their test executive develop, execute, and debug an automated test system as well as manage, package, and deploy test software.

02 Developing Test Programs Using TestStand + CTD Exam

Use TestStand to develop, analyze, debug, and deploy practical test applications that match your test needs.

Certified TestStand Developers demonstrate the ability to develop, debug, and deploy functional applications in TestStand software while minimizing development time and ensuring maintainability.

Test software architects define and create the software framework for the test organization, develop or select data and user management systems, and develop customized and robust user interfaces.

03 Architecting Test Systems Using TestStand + CTA Exam[1]

Design and architect test system frameworks, learn advanced features, and customize the built-in functionality of TestStand.

Certified TestStand Architects display expertise in architecting test systems based on TestStand from high-level specifications.

[1]CTA Exam requires a valid CTD certification to attempt.

ADDITIONAL OPTIONS

Introduction to InstrumentStudio

Creating Measurement Plug-Ins for InstrumentStudio

LabVIEW Core 2

Data Acquisition Using NI-DAQmx and LabVIEW

Modular Instrument Courses

BADGE ASSESSMENTS

TestStand Navigation and Diagnostics

TestStand Sequence Development

Test Principles

Test Instrumentation

Develop Hardware-in-the-Loop Test Systems

This learning path is for engineers developing real-time test and hardware-in-the-loop applications with VeriStand or the HIL and Real-Time Test Software Suite. It presents the courses, exams, and events that teach you how to develop a real-time test system and create a run-time editable user interface using NI VeriStand.

GETTING STARTED

Whether you are creating real-time test systems such as HIL simulators and dynamometers or are tasked with executing and modifying existing VeriStand test systems, you can learn the fundamentals for test development and operation.

01 HIL Fundamentals Using VeriStand

Use the out-of-the-box features of VeriStand to develop real-time test applications such as hardware-in-the-loop test systems.

Learn to add more functionality to VeriStand using the power of LabVIEW. Whether you need to create custom real-time logic, develop hardware algorithms on an FPGA, or redesign your user interface, LabVIEW training courses will provide you with useful skills to add functionality to your real-time test system.

02 LabVIEW Core 1 + Developing Embedded Applications Using CompactRIO and LabVIEW Real-Time

Explore the LabVIEW environment, dataflow programming, and common LabVIEW development techniques in a hands-on format.

Learn how to efficiently design, prototype, and deploy a reliable embedded control and monitoring application.

ADDITIONAL OPTIONS

- Automotive HIL
- SLSC Fundamentals
- LabVIEW Core 2
- LabVIEW Core 3
- Data Acquisition Using NI-DAQmx and LabVIEW
- Developing Embedded Applications Using CompactRIO and LabVIEW FPGA
- Exploring Data Interactively Using DIAdem

BADGE ASSESSMENTS

- LabVIEW Programming
- DIAdem Data Exploration

PC-Based Data Acquisition and Data Logging

This learning path is for engineers using NI DAQ devices and LabVIEW to develop customized and automated measurements to meet application requirements. It presents the courses, exams, and events that teach you how to configure your hardware, perform accurate single-point and continuous measurements, and synchronize your data acquisition.

GETTING STARTED

After an introduction to the LabVIEW environment, communication mechanisms, and development techniques, developers learn to connect signals; acquire, display, and log measurements; generate waveforms; and select resolution and sample rates.

For those who need to integrate data acquisition as a component in a large application or add advanced functionality such as synchronization or handling large quantities of data, advanced LabVIEW training is recommended.

01

LabVIEW Core 1
+
Data Acquisition Using NI-DAQmx and LabVIEW
+
LabVIEW Core 2
+
CLAD Exam

Explore the LabVIEW environment, dataflow programming, and common LabVIEW development techniques in a hands-on format.

Explore the fundamentals of data acquisition using sensors, NI data acquisition hardware, and LabVIEW.

Design, implement, and distribute stand-alone applications using LabVIEW and apply single- and multi-loop design patterns for application functionality.

Certified LabVIEW Associate Developers demonstrate a working knowledge of the LabVIEW environment, a basic understanding of coding and documentation best practices, and the ability to understand and interpret existing code.

02

LabVIEW Core 3
+
CLD Exam

Learn structured best practices to design, implement, document, and test LabVIEW applications.

The second certification exam validates the ability to design and develop functional programs while minimizing development time and ensuring maintainability through proper documentation and style.

ADDITIONAL OPTIONS

Datalogging with FlexLogger

Exploring Data Interactively Using DIAdem

Acoustic Test Fundamentals

Introduction to NI Audio and Acoustics Test Software

RECOMMENDED OPTIONS

PXI System Setup and Maintenance

PXI Timing and Synchronization

Setting Up, Acquiring Data, and Maintaining Your CompactDAQ System

BADGE ASSESSMENTS

Taking Physical Measurements

LabVIEW Programming

Install, Set Up, and Control NI PXI Modular Instruments

These on-demand courses are for engineers using NI PXI modular instruments to create, generate, acquire, and analyze data and signals, both interactively in NI InstrumentStudio™ software and programmatically in LabVIEW. Learn the complete test workflow from configuration and cabling to control, calibration, debugging, and optimizing for speed and precision.

GETTING STARTED

This is for users working with a PXI hardware system.

01 PXI System Setup and Maintenance

Explore the components of PXI systems and learn how to connect, set up, troubleshoot, and maintain the hardware safely.

This is for users who need to synchronize tasks across PXI hardware systems.

02 PXI Timing and Synchronization

Explore the fundamentals of synchronization and the NI software and hardware tools available to implement synchronization methods. Lessons cover mixed-signal DAQmx synchronization, signal- and external-reference-based synchronization, and high-speed synchronization with NI-TClk.

MODULAR INSTRUMENT OPTIONS

Controlling NI Switches for Test Applications

Taking Measurements with NI Digital Multimeters

SMU and Power Supply Setup, Control, and Optimization

Taking Interactive Measurements with an LCR Meter

Taking Measurements with Oscilloscopes

Generating Signals with Waveform Generators

Introduction to RF Signal Generation Acquisition and Analysis with NI RF Technologies

Measuring Power-Added Efficiency with Pulsed RF Measurement Library

Device Testing with Digital Pattern Instruments

Manage Data with DIAdem

This learning path is for engineers using DIAdem to quickly locate, inspect, analyze, and report on measurement data. It presents the courses, exams, and events that teach you how to import, view, and graphically investigate data; automate report generation; and extend the capabilities of DIAdem.

GETTING STARTED

New DIAdem users can explore the most important analysis, reporting, and data management features of the DIAdem environment. Those interested in acquiring measurement data using the DIAdem environment should consider the DIAdem Data Acquisition and Control (DAC) course.

01 Exploring Data Interactively Using DIAdem

Learn to use the most important analysis, reporting, and data management features of the DIAdem environment.

For DIAdem users interested in extending the capabilities of DIAdem software, discover the advanced VBScript and SUDialog capabilities of DIAdem. Those interested in optimizing the speed of a script and minimizing maintenance should consider the DIAdem Customizing and Data Management course.

02 Automating and Customizing Data Processing Using DIAdem[1]

Extend the capabilities of DIAdem software using the advanced VBScript and SUDialog capabilities of DIAdem.

[1]This course is available for both VBScript and Python versions.

ADDITIONAL OPTIONS

Automating and Customizing Data Processing Using DIAdem with Python[1]

LabVIEW Core 1

Data Acquisition Using NI-DAQmx and LabVIEW

BADGE ASSESSMENTS

DIAdem Data Exploration

Semiconductor Test System Curriculum

Semiconductor production test engineers often are challenged to test more complex parts within a fraction of the time and budget. The STS Test Engineer Curriculum is a learning path consisting of three courses designed to teach semiconductor production test engineers quickly how to develop and debug configuration-based test programs, create custom measurements, and optimize advanced test programs for mixed-signal and RF devices using the NI Semiconductor Test System (STS).

GETTING STARTED

For semiconductor test engineers using or evaluating the NI Semiconductor Test System (STS) to perform semiconductor production test or high-volume automated device validation.

01 Test Program Development with STS

Learn how to use Semiconductor Test System (STS) resources interactively to create, modify, execute, and debug test programs with pre-existing code modules to collect test data and test time reports. This course supports both LabVIEW and .NET/C#.

For semiconductor test developers using or evaluating the NI Semiconductor Test System (STS) to develop and perform semiconductor production test or high-volume automated device validation.

02 Test Code Module Development with STS

Learn how to use Semiconductor Test System (STS) resources to develop and debug measurement code modules for the STS test program, create custom test steps, and perform test program optimization and deployment. This course is available for both LabVIEW and .NET/C#.

Designed for test engineers that are responsible for testing RF or mmWave parts. These courses should be taken after Test Program Development with STS and Test Code Module Development with STS.

03 RF IC Test with STS and mmWave Test with STS

Learn how to use STS RF resources interactively to create, modify, execute, and debug test programs based on RF and mmWave configurations. This course is available for .NET/C# only.

ADDITIONAL OPTIONS (FOR TEST ENGINEERS)

Device Testing with Digital Pattern Instruments

LabVIEW Core 1

LabVIEW Core 2

Developing Test Programs Using TestStand

ADDITIONAL OPTIONS (FOR OPERATORS AND TECHNICIANS)

STS Operator

STS Maintenance

Managing Systems and Data with SystemLink

Learn how to how to use SystemLink Enterprise or SystemLink Server to manage test systems, deploy software, manage hardware assets, and collect and analyze test results.

GETTING STARTED

This is recommended for those who aim to efficiently manage, search, access, and analyze all measurement data.

01 Managing Systems and Assets with SystemLink Server or Managing Systems and Assets with SystemLink Enterprise

Learn how to effectively monitor and manage test station system health, software configuration, and test results using the powerful visualization and analytics capabilities of SystemLink.

This course is available for SystemLink Enterprise or SystemLink Server.

Classroom and Virtual training are available for this course.

The course guides participants on automating file loading with Jupyter routines, as well as how to exchange data with third-party assets.

02 SystemLink Server Advanced: Ingesting, Managing, and Visualizing Your Test Data or SystemLink Enterprise Advanced: Ingesting, Managing, and Visualizing Your Test Data

Use SystemLink APIs to interact with test, system, and asset data to extend SystemLink functionality and implement effective dashboards enabled through custom analytics. Students will be exposed to various utilities to test and troubleshoot SystemLink API calls.

This course is available for SystemLink Enterprise or SystemLink Server.

Classroom and Virtual training are available for this course.

ADDITIONAL OPTIONS (FOR TEST ENGINEERS)

Using SystemLink Server to Manage Systems and Data (on-demand only)

Advanced Data Analysis and Integration with SystemLink Server (on-demand only)

System Monitoring, Test Data Storage and Analysis with SystemLink Enterprise (on-demand only)

Exploring Data Interactively Using DIAdem

Developing Test Programs Using TestStand

ADDITIONAL OPTIONS (FOR IT)

Installing, Monitoring and Upgrading SystemLink Server

Installing, Monitoring, and Upgrading SystemLink Enterprise

OptimalPlus Solutions

OptimalPlus users can explore the value our applications bring using the power of big data analytics.

GETTING STARTED

For new OptimalPlus users starting to explore the NI OptimalPlus solution. It provides a basic review of its Portal+, Rules+, and Control Room+ applications.

01 OptimalPlus Fundamentals (Semiconductor) or OptimalPlus Fundamentals (Non-Semiconductor)

Gain familiarity with the NI OptimalPlus solution, as it provides a basic review of its Portal+, Rules+, and Control Room+ applications.

This course is available for Semiconductor and Non-Semiconductor Solutions.

For those using the Optimal+ Global Operations solution to harness the power of big data analytics to improve yield and productivity with an integrated view into your global manufacturing operations and processes.

02 OptimalPlus Global Operations: Basics + OptimalPlus Global Operations: Beyond the Basics

Get an integrated view of your global manufacturing operations and processes. Learn the basics of Portal+ and Rules+ applications, including how to execute a preliminary analysis on Portal+. Set up your first dashboard and rule to establish automated operational monitors.This course is available for Semiconductor Solutions.

Extend your basic skills of Portal+ and Rules+ applications and learn more about Portal+. Enhance your dashboard's visualizations with conditional formatting and targets. Create a custom query configuring generic rules and detect outliers across entity types. This course is available for Semiconductor Solutions.

Implement Global Operations+ in a customer environment and address process-related issues and increase quality and reliability by killing or downgrading outlier units.

03 Escape Prevention and Escape Prevention Advanced + Using the Outlier Detection Solution + Adaptive Test-Time Reduction and NPI

Implement escape prevention rules and analyze data to address test processes and operational issues that impact quality and lead to a test escape. This course is available for Semiconductor Solutions.

Address fab-process-related issues to meet quality targets by learning how to execute outlier detection algorithms on test data using a pre-defined population then automatically switch units to different bins when the rule is applied in production. This course is available for Semiconductor Solutions.

Extend the capabilities of OptimalPlus using adaptive test simulation and new product introduction advanced capabilities. This course is available for Semiconductor Solutions.

ADDITIONAL OPTIONS (FOR TEST ENGINEERS)

Sequoia Essentials Course Overview

What Is New In This Optimal Plus Applications Version?

OptimalPlus Train the Trainer Program

ADDITIONAL OPTIONS (FOR IT)

IT Foundations: Tier 1 Onboarding (Semiconductor)

IT Foundations: Tier 1 Onboarding (Non-Semiconductor)

Flexible Purchase Options

NI provides flexible options for purchasing training and certification. Whether you want to make an upfront investment or pay as you go, NI has offerings to meet a variety of budgetary needs. Most offerings can be purchased at ni.com/training/buy, or purchase custom or private training offerings by contacting NI at services@ni.com.

Save Money with a Training Membership

A training membership is a cost-effective way to take multiple instructor-led training courses. This program provides one year of unlimited access—for one registered user—to instructor-led training and online certification exams.

Buy Credits Now, Schedule Later

Purchase education services credits now and redeem them later for any training or certification offering. Education services credits expire after one year.

Secure a Seat in a Public Course

View NI's global training calendar and secure a seat in an upcoming virtual or classroom instructor-led course. You can request the course by completing this form.

Take Advantage of On-Demand Learning

NI software licenses include one-year access to introductory on-demand learning content so you can onboard quickly. Purchase additional on-demand courses at ni.com/training/buy.

To find out what on-demand training your license includes, view the knowledgebase article, Which Online Training Courses Can I Access Based on My NI Service Contract?.

Organize a Private Training Event

NI offers private training events for teams of up to 12 students. Private training events can leverage standard NI training courses and include custom materials tailored to your needs. You can request private training by completing this form.

Explore the NI Learning Center

With hundreds of on-demand lessons and application-focused learning paths, the NI Learning Center makes it quick and easy to learn new skills.

Check it out today at learn.ni.com.

Invest Upfront and Use Later

NI offers two options for customers to pay upfront for training and certification. For individuals seeking to pay upfront for unlimited instructor-led training and certification options, NI offers the training membership program. Both individuals and team managers can purchase a bulk quantity of education service credits and redeem them for any education services offering, for any user, within one year of purchase.

Education Service Credits

These are designed for individuals or groups that want to purchase training for multiple employees or team members, but need the flexibility to decide who participates in the training, and when. You can use credits to purchase:

- Instructor-led training (public/private) in virtual or classroom format
- On-demand training
- Certifications

Credits are recommended for large projects, volume license agreements, and end-of-year budget spending. Visit ni.com/training for more information about education service credits.

Training Membership

Training memberships provide unlimited access to all NI public classroom and public virtual courses, along with unlimited certification vouchers. This can translate to cost savings if you are planning to take multiple instructor-led courses within one year. A training membership is a one-time purchase that does not renew. Visit ni.com for more information about a training membership.

Learning Formats

With our learning programs, you have control over how you receive your training, allowing you to accommodate your specific learning preferences.

NI offers courses in several languages and formats, including classroom training at facilities worldwide or on-site at your facility, on-demand courses, and virtual training to better serve your individual needs. Whichever course format you choose, NI training courses can help you achieve immediate productivity gains and long-term success. Visit **ni.com/training/options** for more details about learning formats.

Scheduled Classroom Training

Leave the distractions of everyday work behind and get hands-on with software and hardware, interact in-person with an experienced instructor, and discuss ideas and problems with your peers and colleagues.

Scheduled Virtual Training

Eliminate travel costs and minimize the impact on your schedule while benefiting from live instruction. NI instructors use a virtual classroom environment to present learning material while you complete course exercises from your desk with virtual machines or remote systems.

On-Demand Training

NI understands that you may not have the time or resources to participate in an instructor-led training program. On-demand training is a cost-effective alternative that is accessible 24 hours a day from **learn.ni.com** with your ni.com user profile information.

Compare Learning Formats

NI offers training courses in several formats to accommodate your learning preferences, including instructor-led and self-paced options.

Learning Format	Description	Education Service Credits (ESC) or EA Flex Credits (FC)	Legacy Training Credits (TC)
On-Demand	Online course that includes prerecorded videos, demonstrations, and quizzes. Available in a 12-month subscription.	5 ESC or FC/subscription	2 TC/subscription
Public Classroom	A training course on our calendar that is open to the public for registration and delivered at a physical NI training center. Delivered in full days (8 hours).	10 ESC or FC/day/ student	3 TC/day/student
Public Virtual*	A training course on our calendar that is open to the public for registration and delivered virtually.	8 ESC or FC/day/ student	~2.5 TC/day/student
Private Classroom	A training course that is hosted for a specific group of users at an account, often at the customer's site. Delivered in full days (8 hours).	70 ESC or FC/day/up to 12 students	20 TC/day/up to 12 students
Private Virtual*	A training course that is hosted for a specific group of users at an account but virtually. Delivered in half days (4–6 hours).	Software: 56 ESC or FC/day/ up to 12 students	Software: 17 TC/day/up to 12 students
		Hardware: 32 ESC or FC/day/ up to 6 students[1]	Hardware: 10 TC/day/ up to 6 students[1]
		[1]Hardware-based private virtual courses have a maximum of six students to ensure a better customer experience.	
Private Classroom Configured	Delivered in the private classroom format, using NI standard training content that is reconfigured to better meet the needs of the audience. Delivered in full days (8 hours).	84 ESC or FC/day/ up to 12 students	25 TC/day/ up to 12 students
Private Virtual Configured	Delivered in the private virtual format, using NI standard training content that is reconfigured to better meet the needs of the audience. Delivered in half days (4–6 hours).	67 ESC or FC/day/up to 12 students	20 TC/day/up to 12 students

*Exceptions to virtual instructor-led training apply; refer to ni.com for final pricing.

Private Classroom or Virtual Training

Private classroom or virtual training is a cost-effective solution if your organization has several employees who need to develop the skills to effectively use NI products. Private classroom or virtual courses deliver the classroom learning experience to your company's facilities and eliminate travel and hotel expenses. They also give you the opportunity to focus on key topics or challenges for your team.

Contact NI at **services@ni.com** to learn more.

Education Services Courses

Become familiar with NI hardware and software by attending our training courses.

Education services courses are available for new and experienced users in the form of on-location and virtual classrooms, labs, and collaborative sessions. Topics include working with LabVIEW, TestStand, VeriStand, FPGA, data acquisition hardware, and more.

Instructor-Led Training Courses

Proficiency: Advanced | Intermediate | Introductory

Standard Courses	Instructor-Led Learning Formats				Instructor-Led Learning Formats			
	Education Service Credits (ESC) or EA Flex Credits (FC)				Duration (Days)			
	Public Classroom	Private Classroom	Public Virtual	Private Virtual	Public Classroom	Private Classroom	Public Virtual	Private Virtual
Actor-Oriented Design in LabVIEW	30	210	24	168	3	3	4	4
Architecting Test Systems Using TestStand	20	140	16	112	2	2	3	3
Automating and Customizing Data Processing Using DIAdem (Previously DIAdem Advanced)	20	140	16	112	2	2	3	3
Automating and Customizing Data Processing Using DIAdem with Python	20	140	16	112	2	2	3	3
Data Acquisition Using NI-DAQmx and LabVIEW	20	140	16	112	2	2	3	3
Developing Embedded Applications Using CompactRIO and LabVIEW FPGA	30	210	24	96	3	3	4	4
Developing Embedded Applications Using CompactRIO and LabVIEW Real-Time	40	280	32	128	4	4	5	5
Developing Test Programs Using TestStand	30	210	24	168	3	3	4	4
Exploring Data Interactively Using DIAdem (Previously DIAdem Basics)	30	210	24	168	3	3	4	4
HIL Fundamentals Using VeriStand	30	210	24	96	3	3	4	4
Installing, Monitoring, and Upgrading SystemLink Server	20	140	16	112	2	2	3	3
LabVIEW Core 1	30	210	24	168	3	3	5	5
LabVIEW Core 2	20	140	16	112	2	2	3	3
LabVIEW Core 3	30	210	24	168	3	3	4	4
LabWindows/CVI Core 1	30	210	24	168	3	3	4	4
LabWindows/CVI Core 2	20	140	16	112	2	2	3	3
Managing Systems and Assets with SystemLink Server	10	70	8	56	1	1	2	2
Managing Systems and Assets with SystemLink Enterprise	n/a	70	n/a	56	n/a	1	n/a	2
Object-Oriented Design and Programming in LabVIEW	30	210	24	168	3	3	4	4

Standard Courses	Instructor-Led Learning Formats				Instructor-Led Learning Formats			
	Education Services Credits (ESC) or EA Flex Credits (FC)				Duration (Days)			
	Public Classroom	Private Classroom	Public Virtual	Private Virtual	Public Classroom	Private Classroom	Public Virtual	Private Virtual
SystemLink Server Advanced: Ingesting, Managing, and Visualizing Your Test Data	10	70	8	56	1	1	2	2
SystemLink Enterprise Advanced: Ingesting, Managing, and Visualizing Your Test Data	n/a	70	n/a	56	n/a	1	n/a	2
Test Code Module Development with STS and LabVIEW	30	210	16	64	3	3	4	4
Test Code Module Development with STS and .NET/C#	20	140	16	64	2	2	3	3
Test Program Development with STS	30	210	24	96	3	3	4	4
Adaptive Test-Time Reduction and NPI	Contact services@ni.com for pricing and duration.							
Calibration Executive								
Escape Prevention and Escape Prevention Advanced								
Installing, Monitoring, and Upgrading SystemLink Enterprise								
IT Foundations: Tier 1 Onboarding for OptimalPlus								
OptimalPlus Global Operations: Basics								
OptimalPlus Global Operations: Beyond the Basics								
OptimalPlus Train the Trainer Program								
Sequoia Essentials								
STS Operator								
STS Maintenance								
Using the Outlier Detection Solution								
What Is New in This Optimal Plus Applications Version?								

Legacy Training Credits (TCs), mainly used within Enterprise Agreements (EAs), have specific amounts. For more details, learn more.

On-Demand Learning Courses

Course Name	Education Services Credits (ESC) or EA Flex Credits (FC)
Acoustic Test Fundamentals	FREE
Architecting Test Systems Using TestStand	5
Advanced Data Analysis and Integration with SystemLink Server	5
Automating and Customizing Data Processing Using DIAdem (Previously DIAdem Advanced)	5
Automotive Communication Using the Vehicle Communication Toolkit	5
Automotive Communication with NI-XNET	5
Automotive HIL	5
BTS Test Station Configuration and Test Development	FREE
Battery Test System Safety and Maintenance Procedures	FREE
Controlling NI Switches for Test Applications	5
Course Updates and New Features: LabVIEW 2024 Q3	FREE
Course Updates and New Features: VeriStand 2024 Release	FREE
Creating Autonomous Vehicle Simulations Using monoDrive	FREE
Creating Measurement Plug-Ins for InstrumentStudio	FREE
Creating Web Applications Using G Web Development Software	5
Data Acquisition Using NI-DAQmx and LabVIEW	5
Data Record AD System Configuration and Setup	5
Datalogging with FlexLogger	FREE
Developing Custom FPGA Code Using LabVIEW FGPA	5
Developing Deterministic Applications Using LabVIEW Real-Time	5
Developing Machine Vision Systems with VBAI	5
Developing Test Programs Using TestStand	5
Device Testing with Digital Pattern Instruments	5
ECU Test System Safety and Maintenance Procedures	5
Exploring Data Interactively Using DIAdem (Previously DIAdem Basics)	5
Generating Signals with Waveform Generators	5
HIL Fundamentals Using VeriStand	5
Integrating the NI VCSEL I-V Test Subsystem	5
Introduction to InstrumentStudio	FREE
Introduction to MeasurementLink™	FREE
Introduction to NI Audio and Acoustics Test Software	FREE
Introduction to RF Signal Generation Acquisition and Analysis with NI RF Technologies	FREE
Inverter HIL Test System Training	5
LabVIEW Connectivity	5
LabVIEW Core 1	5
LabVIEW Core 2	5
LabVIEW Core 3	5
LabVIEW Interoperability	5

Course Name	Education Service Credits (ESC) or EA Flex Credits (FC)
LabWindows/CVI Core 1	5
Measuring Power-Added Efficiency with Pulsed RF Measurement Library	FREE
Measuring Wafer-Level Reliability	5
mmWave Test with STS (.NET/C#) (Previously mmWave Test with STS)	5
Multisim Basics	5
Object-Oriented Design and Programming in LabVIEW	5
OptimalPlus Fundamentals (Semiconductor and Non-Semiconductor)	Only with software purchase
PAtools Foundation and Overview	FREE
PXI System Setup and Maintenance (Previously PXI System Setup)	5
PXI Timing and Synchronization	5
RFIC Test with STS and .NET/C# (Previously RFIC Test with STS)	5
RFIC Test Software for RF Front-End Design Validation	FREE
Semiconductor Device Control Add-On for DUT Validation	FREE
Setting Up, Acquiring Data, and Maintaining Your CompactDAQ System	5
SLSC Fundamentals	5
SMU and Power Supply Setup, Control, and Optimization	5
Software Engineering for Test Applications	5
Software License Management Using NI VLM	FREE
Taking Interactive Measurements with an LCR Meter	5
Taking Measurements with NI Digital Multimeters	5
Taking Measurements with Oscilloscopes	5
Test Code Module Development with STS	5
Test Program Development with STS	5
Ultiboard Basics	5
Using Open-Source Tools with USRP Hardware for SDR Applications	FREE
Using SystemLink Software to Manage Systems and Data	FREE

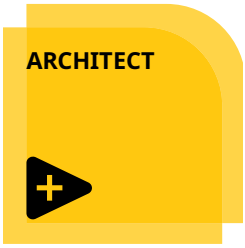
Accelerate learning and promote your accomplishments with NI badges.

Find learning resources and gain skills related to your application. Track your knowledge growth with milestone badge assessments and professional certifications. And share your successes with others on social media and job sites.

What Is a Badge?

A badge is a digital credential that NI issues to you in recognition of your accomplishments, such as passing an assessment, exam, or audit. These digital credentials contain verified, personalized information, including details on the exam you passed to earn your certification or your skills tested in an application area.

NI BADGES



LEARNING BADGES

Discover engineering fundamentals and NI product best practices through on-demand learning, and then test your understanding with self-assessments and share your success.

PROFESSIONAL CERTIFICATION

Demonstrate that you have the skills needed to create high-quality applications with NI software. Share your skills on social media and job sites and advance your career.

COMMUNITY ADVOCACY

Gain recognition for technical leadership, participation in, and contributions to the NI user community and NI's expansive ecosystem of tools and expert developers.

Promote Your Accomplishments

You can hyperlink a badge image file to the digital credential containing your unique, verified data. This makes badges more secure than paper-based certificates and eliminates the possibility of anyone claiming your credential. Adding a hyperlinked badge image to your email signature and sharing your badge on social media and job sites are great ways to make sure your professional network is aware of your accomplishments.

Badge Benefits

With badges, you can solicit feedback on your learning and uncover the next steps in your skill progression, because employers, peers, and customers instantly can verify your skills. And badges are an easy way to share your achievements on a variety of social media platforms. Have questions? Email us at services@ni.com.

Challenge yourself and test your understanding with NI learning badges.

Complement NI courses and certifications with learning badge self-assessments to track your knowledge growth and find additional content related to your application. Test your understanding of engineering fundamentals and best practices using NI products with these free online assessments. Use learning badges to:

- Prepare for NI certification exams.
- Identify knowledge gaps before starting a new project.
- Optimize your self-paced learning and target topics specific to your needs.

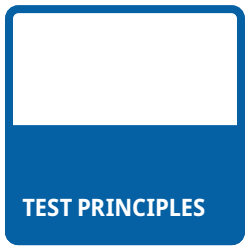
How Do Learning Badges Work?

1. Select a badge related to your projects and review the available learning resources.
2. Take the free, open-book, untimed assessment.
3. Earn all of the badges on a badge learning path and receive the high-level badge for that path.
4. Follow instructions from Credly to share your badges with others on social media and job sites.

CHOOSE A BADGE LEARNING PATH THAT BEST FITS YOUR APPLICATION NEEDS

Automate simple tasks and take basic measurements on a one-off basis. Build a simple looping or sequencer VI from scratch.

Take ad-hoc engineering measurements using LabVIEW and NI data acquisition hardware. Build a custom measurement solution to acquire and visualize real-world signals.



Build a foundation of test and measurement principles to help you test multiple products with a test platform.

Visit ni.com/badges to take a free learning badge assessment.

Validate your skills and advance your career with certifications.

Certification demonstrates that you have the skills to create high-quality applications with NI software and gives customers, peers, and employers confidence in your abilities. NI offers certifications that are standardized globally, allowing for secure and uniform testing across teams, organizations, or countries. You can use certification to assess and validate an individual's skills for the purpose of project staffing or career advancement.

CLAD | Certified LabVIEW Associate Developer

The CLAD certification indicates a broad working knowledge of the LabVIEW environment, a basic understanding of coding and documentation best practices, and the ability to read and interpret existing code.

CLD | Certified LabVIEW Developer

The CLD certification indicates the ability to design and develop functional programs while minimizing development time and ensuring maintainability through proper documentation and style.

CLA | Certified LabVIEW Architect

The CLA exam tests the user's ability to build a sensible VI hierarchy and project plan for delivering an application that meets project requirements. Certified Architects can design the application architecture and manage the development of the individual components by other engineers.

CLED | Certified LabVIEW Embedded Systems Developer

A CLED demonstrates expertise in designing, developing, debugging, and deploying applications based on CompactRIO, Single-Board RIO, and/or R Series hardware. A CLED efficiently uses the LabVIEW Real-Time and LabVIEW FPGA modules with NI-recommended best practices to design modular, scalable, and maintainable embedded systems to requirements.

CTD | Certified TestStand Developer

The first step in the two-part TestStand certification process, the CTD measures the ability to develop, debug, and deploy functional applications in TestStand software while minimizing development time and ensuring maintainability.

CTA | Certified TestStand Architect

The final step in the two-part TestStand certification process, the CTA shows a user's expertise in architecting test systems in TestStand based on high-level specifications. Certified Architects can design the application architecture and manage the development of individual components by other engineers.

CPI | Certified Professional Instructor

The CPI certification distinguishes individuals who are authorized to teach NI courses. CPIs are the only non-NI instructors authorized to teach NI courses. Through teaching courses, CPIs can identify business opportunities and position themselves as an expert in their field.

Certification Exam Formats	Multiple Choice	Practical	Prerequisites	Exam Duration	Recertification Interval	Education Services Credit
Certified LabVIEW Associate Developer	■		None	1 Hour	2 Years	1
Certified LabVIEW Developer		■	None	4 Hours	3 Years	3
Certified LabVIEW Architect		■	CLD	4 Hours	4 Years	3
Certified LabVIEW Embedded Systems Developer	■	■	CLD or CLA	1 Hr + 5 Hr	5 Years	1 + 3
Certified TestStand Developer		■	None	4 Hours	3 Years	3
Certified TestStand Architect	■		CTD	1 Hour	4 Years	1
Certified Professional Instructor		■	CLD/CTD/ or Higher	8 Hours	Subject to Contract	N/A

Prepare for an Exam

Preparing for your exam is easy with resources such as preparation guides, webcasts, sample exams, and solutions. Visit **ni.com/certification-prep** and select your exam of interest to view the preparation guide.

Register for one of our FREE certification preparation sessions.

Visit NI's **global training calendar** to choose a date.

Register for an Exam

Ready to take an exam? Start here:

1. Visit **NI Certification Program** or **NI Learner Dashboard** to begin.
2. Read the details about the **NI Certification Program** and select the exam you're interested in.
3. Make sure you have met the prerequisite for taking your desired exam.
4. Visit NI's **global training calendar** for in-person exam dates.
5. Send your request to **services@ni.com** or complete **this form**.

Recertify

To learn more about our Recertification Policy and Process, visit **ni.com**.

Not quite ready for an exam?

If you would like to spend more time covering exam topics, explore the NI Badge Program. Assess your skill level with NI badge assessments and view recommended learning material as you progress through a badge path.

Visit **ni.com/badges** to learn more.

NI Global Services and Support

NI complements its industry-leading products with services from experts around the globe to help you achieve your goals. Whether your challenges are simple or complex, NI can help you maximize productivity and reduce costs with services such as training, technical support, consulting and integration, and hardware services.

At NI, we are creative problem-solvers, always seeking to help one another to be more effective. Don't hesitate to contact us if we can help you adapt your learning path to your needs.

Software Services

Maximize the use of NI software by leveraging services such as technical support, online training, flexible licensing, and asset management.

Hardware Services

Minimize downtime, save on repair costs, and ensure measurement accuracy with world-class service programs for hardware.

Education Services

Develop 50 percent faster and spend 43 percent less time on code maintenance with NI training courses. Also, validate your expertise with NI certifications.

Technical Support Services

Get started with NI products faster or troubleshoot tough issues by contacting NI applications engineers who are ready to help via phone and email.

Professional Services

Leverage our extensive network of NI Partners and NI engineers for assistance with prototyping, feasibility analysis, consulting, and systems integration.

Technical Resources

Access volumes of self-help information at ni.com, including application tips, example programs, and developer communities.

Enabling Success Every Step of the Way

Take advantage of services that meet your needs in any phase of the application lifecycle, from planning and development through deployment and ongoing maintenance.

- Professional technical support
- Online and classroom-based training courses
- Software upgrades and updates
- Hardware repair and calibration
- System assembly and test
- Prototyping and feasibility analysis
- Consulting and development assistance

Disability and Accessibility

We're in this together! NI endeavors to provide training courses accessible to the widest possible audience, regardless of technology or ability.

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Austin, TX 78759-3504

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