

Online Industrial Security Training Program from GE Digital



Improve security understanding with OT-specific actionable learning

Unique needs require different approaches

Cyber threats to operational environments are on the rise, but the unique nature of those environments requires different approaches to secure them. Many organizations are finding that existing IT security controls are inadequate to address OT security and lack the understanding necessary to adapt their efforts to protect critical infrastructure. To catch up to the rapidly expanding threat landscape, companies recognize a need for new skills, and are seeking better awareness and OT-specific training for both operators of assets and IT security professionals.

GE Digital offers a full schedule of self-paced, online courses that provide necessary knowledge, without requiring time away from the operation. The courses are designed with both operators and IT security professionals in mind, with a focus on actionable learning, not just theory.

GE digital can help improve your security posture and succeed in today's digital industrial landscape.

[LEARN MORE](#)



01 Business challenge

Effective cyber security for operational environments requires common understanding of best practices, awareness of emerging threats, and attention to existing vulnerabilities.

02 Solution

GE Digital's Industrial Security Training Program is a set of web-based courses that offer flexible, as-needed training that accommodates busy schedules. This comprehensive training curriculum is divided into three training series:

- Industrial Security Introductory Training
- Industrial Security Intermediate Training
- Industrial Security Advanced Training

These courses incorporate the expertise and experience of our recognized OT industry experts to improve security understanding. The course content is focused on providing actionable insight, not just theory. Students will gain knowledge about OT environments, cyber risk, and best practices for protection. The courses are self-paced, allowing maximum flexibility for completion, and include embedded knowledge tests to ensure understanding.

03 Benefits

- Enables fundamental cyber security awareness for both IT and OT professionals
- Flexible, web-based training to accommodate busy schedules
- Improves cross-function collaboration with common understanding

Industrial Security Introductory Training Series

This series provides an introduction to the concepts of cyber security and their application in the industrial controls domain.

Course Descriptions

Course 1

Introduction to Cyber Security

The course lays the foundation for the rest of the series. It describes the basic functions and goals of cyber security services and mechanisms.

Course 2

Overview of the Computer Network

The course provides an overview of how data flows through a basic computer network and how network components and protocols ensure the safe and secure communication of data through a network.

Course 3

Cyber Security and the Industrial Network

In this part of the series, participants will be introduced to the unique aspects of industrial computer networks and gain an initial perspective of the challenges in cyber security that surround these complex environments.

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Course Descriptions		
Course 4	Introduction to Network Models and Protocols	Participants will be review how network models work using the TCP/IP model and protocols as an example. Throughout the course participants will identify how protocols support cyber security goals.
Course 5	Common Network Protocols and Security	This review of common protocols used in industrial control networks will help the cyber security professional identify potential gaps and security concerns in a network. It will also identify insecure protocols commonly present in a network.
Course 6	Cryptography Basics	The course describes typical network scenarios and network security services and mechanisms. Course participants will review the process of creation and implementation of cryptography and explore known cryptography weak points.
Course 7	Attacking and Protecting the Network	The course begins with an overview common attacks on cryptography. Then it moves on to cover commonly used secure protocols and the cryptography strategies these protocols use to protect network communications.
Course 8	Wireless Networks and the IACS	As wireless networks increase in popularity, thanks to increased reliability and decrease in cost, this course will make participants aware of common wireless sensor networks and their corresponding security features.
Course 9	The Wireless LAN and WAN	Continuing the overview of wireless networks, this course expands to include information about the Local Area Network and the Wide Area Network, their strengths and their vulnerabilities.
Course 10	State of the Industry in Cyber Security	This review covers current efforts by government and industry leaders in the field of cyber security as well as important developments and standards in specific regions and industries.

Course Descriptions		
Course 11	ICS Standards	The course offers a closer look at specific industry standards created for the ICS domain. The participants will gain knowledge on the strengths and weaknesses of industry standards and become aware of additional attack vectors used by threat sources to circumvent today's security efforts.
Course 12	Uncovering Cyber Security Vulnerabilities	Participants will see an overview of strategies used by expert cyber security professionals to investigate, identify, and classify vulnerabilities in an industrial network.
Course 13	The Cyber Security Risk Assessment	The course lays the foundation for the rest of the series. It describes the basic functions and goals of cyber security services and mechanisms.
Course 14	ICS Vulnerabilities	The course provides an overview of how data flows through a basic computer network and how network components and protocols ensure the safe and secure communication of data through a network.
Course 15	Managing and Tracking Vulnerabilities	In this part of the series, participants will be introduced to the unique aspects of industrial computer networks and gain an initial perspective of the challenges in cyber security that surround these complex environments.
Course 16	Security Controls Overview	Participants will be review how network models work using the TCP/IP model and protocols as an example. Throughout the course participants will identify how protocols support cyber security goals.
Course 17	Intermediate and Advanced Security Controls	The course presents a series of intermediate and advanced resources for cyber security professionals. While the controls reviewed here are not meant to be an all-encompassing solution for ICS security, they provide a thorough representation of the most common intermediate and advanced control strategies available today.

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Services

In the world of Industrial Internet of Things (IIoT), organizations are able to optimize productivity, reduce costs, and achieve Operational Excellence. No matter where you are on your IIoT journey, GE Digital has the right services offering for you.

[Advisory Services](#) We can help you plan and start your IIoT journey in a way that aligns to your specific business outcomes.

[Managed Services](#) We can help you maintain your critical machines from one of our remote locations around the world using model-based predictive-analytic technology.

[Implementation Services](#) Our experienced global automation partners can implement a collaborative, multi-generational program that marries your existing investments to the right enhancements and technology.

[Education Services](#) We specialize in education services to ensure that you're leveraging our solutions to the fullest extent with our training and certificate programs.

[GlobalCare Support Services](#) Let us help by ensuring that your business continues to operate at its highest efficiency, all while mitigating risks to your investments.

[Cyber Security Services](#) Our solutions provide industrial-grade security for a wide range of OT network and application topologies.

Related products

GE Digital's OT cyber security suite helps protect industrial and healthcare companies against misconfigured devices and unplanned downtime due to cyber incidents. We can help you test, certify, and secure industrial connected devices, applications, and processes.



[Achilles Test Platform](#) →

Build in product security. Achilles Test Platform discovers vulnerabilities and faults to be reproduced, isolated, identified, and resolved before product introduction.



[OpShield](#) →

Designed to help protect critical infrastructure and controls network by defending the processes, communications, and assets that underpin your control strategy.

PREDIX

[Predix](#) →

Innovate and transform your business with the cloud-based operating system for the Industrial Internet, purpose-built for industry.

Continue your IIoT journey

Transforming your business requires innovative foundational solutions that lay the groundwork for optimized performance.



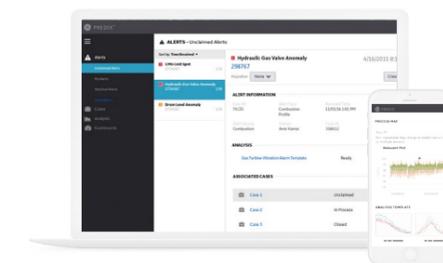
[Historian](#) →

Optimize asset and plant performance through time-series industrial data collection and aggregation, leveraging Predix IIoT connectivity.



[iFIX](#) →

Gain visibility into your operations and secure agility for smarter decision making that drives results.



[Asset Performance Management](#) →

Move from reactive to proactive maintenance to reduce unplanned downtime, minimize maintenance costs, improve efficiency, and extend asset life.

About GE

GE (NYSE: GE) is the world's Digital Industrial Company, transforming industry with software-defined machines and solutions that are connected, responsive and predictive. GE is organized around a global exchange of knowledge, the "GE Store," through which each business shares and accesses the same technology, markets, structure and intellect. Each invention further fuels innovation and application across our industrial sectors. With people, services, technology and scale, GE delivers better outcomes for customers by speaking the language of industry.

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