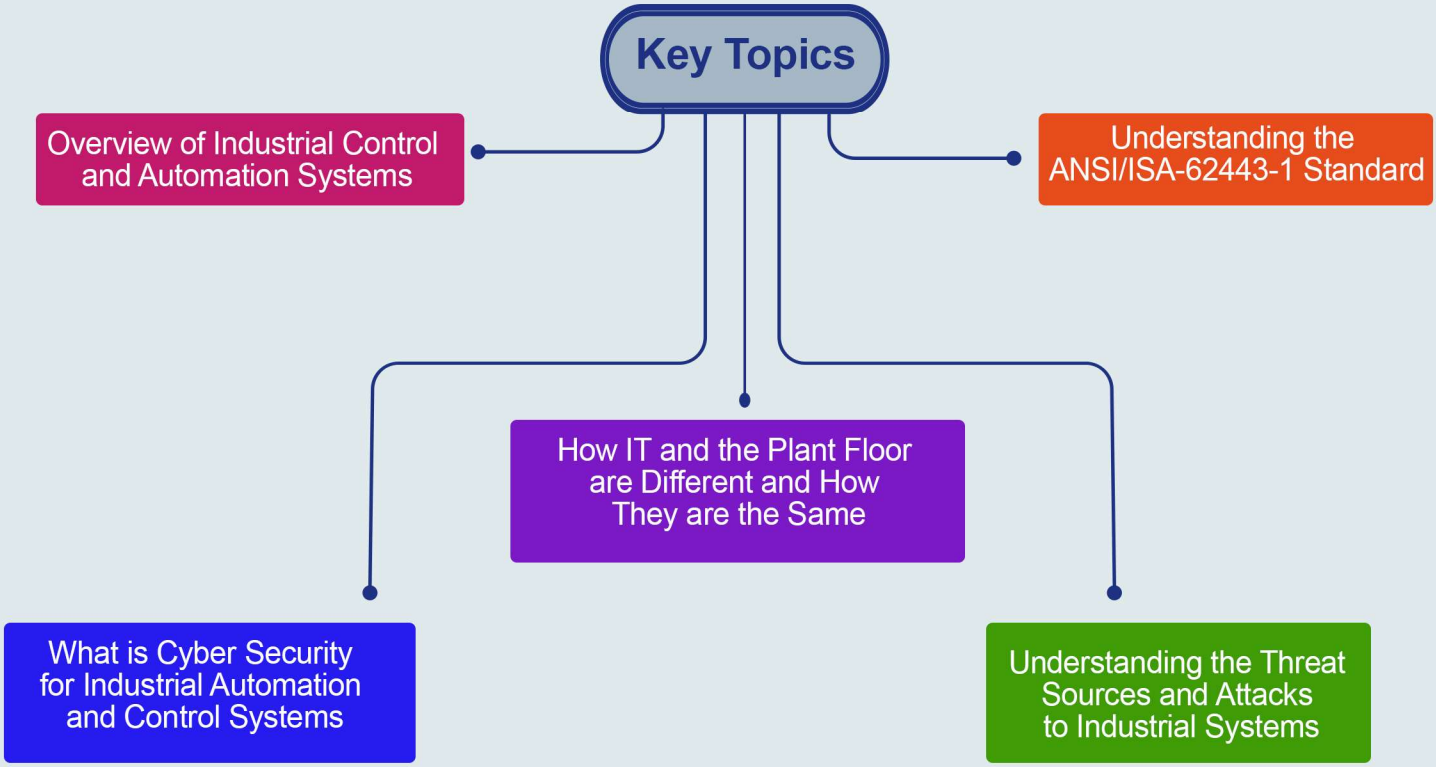
About the Course

This course provides a detailed look at security essentials of industrial systems and part 1 of the ISA/ANSI 62443 Standard which can be used to protect critical control systems. It also explores the procedural and technical differences between the security for traditional IT environments and those solutions appropriate for SCADA or plant floor environments. The course explores the move to using open standards such as Ethernet, TCP/IP, and web technologies in SCADA and process control networks that has begun to expose these systems to the same cyber-attacks that have wreaked so much havoc on global government and corporate information systems.

Learning Objectives

1. Familiarity with Industrial Control and Automation Systems
2. Interpret the ISA/IEC 62443 Industrial Security Framework
3. Understanding Defense in Depth Concepts
4. Understanding Zone/Conduit Models of Security
5. Understanding the ANSI/ISA-62443-1 Standard
6. Applying ISA/IEC 62443 to Operation

Key Topics



Pre Requisites

- Information Security Concepts and Principles Course

What You Will Receive

- Course Presentation File
- Complementary Files
- Industrial Systems Security Essentials eBook

Who Should Attend

Anybody who wants to make his/her carrier in Information Security and be an expert in Industrial Systems' Security including:

- Industrial Systems Pentesters
- Industrial Security Specialists
- Information Security Auditors

Syllabus

Overview of Industrial Control and Automation Systems

- Industrial Control Systems
- ICS Equipment
- ICS Network Architecture
- Industrial Protocols

ICS Security Concepts

- Security & Safety differences
- IT & OT differences
- CIA model vs AIC model
- Attacks

ISA/IEC 62443-1 Standard Part 1

- ISA/IEC 62443-1-1 Terminology and Regulations & Standard
- ISA/IEC 62443-1-2 Master Glossary of Term and Abbreviations
- ISA/IEC 62443-1-3 System Security Conformance Metrics
- ISA/IEC 62443-1-4 IACS Security Lifecycles and Use-cases

Wireless Attacks

- Physical Security
- Network Security
- Security Products

Hands-on Training

- Lab 1 – ICS Equipment
- Lab 2 – ICS Network
- Lab 3 – Attack & Defense