

NIST Cybersecurity Professional Certification Training Programs



NIST Cyber Security Professional (NCSP) Foundation Certification Video Training Course Outline

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Course Introduction

Course Introduction

Chapter 1 - Course Introduction

Lesson: Course Organization

Welcome to the Course!
Why Are You Here?
Using Bloom's Taxonomy
What do you Expect?
Housekeeping
Getting Started in the Classroom

Lesson: Course Resources

Course Materials
Syllabus
Student Manual

Your Day & Quizzes
My ITSM Mentoring Community
NCSP Foundation Certification Exam
Agenda-NCSP Foundation
Lesson: NIST-CSF “Setting the Stage”
The Context
NIST Cybersecurity Framework
The Story
Let’s Get Started
Checkpoint

Chapter 2 - Digital Transformation: Becoming Digital

Digital Transformation

Introduction

Learning Outcomes

Lesson: Basics of Digital Transformation

What is Digital Transformation?

Transformation – Industrial to Digital Era

Digital Transformation & Critical Infrastructure

Digital Transformation: Attributes of the Digital Enterprise

Lesson: Becoming Digital

Digital Transformation from the Corner Office

Becoming “Digital”

Optimized Rate of Change

Outside-in, Putting Customers First

Transforming the Enterprise

Lesson: Cybersecurity & Digital Transformation

Role of Cybersecurity in Digital Transformation

Cybersecurity & Critical Infrastructure

Digital Transformation: Basic Principles (THRIVE)

Digital Transformation Impacts Many Areas

Cybersecurity: Key DX Challenges

Lesson: DX & the Framework

Digital Transformation & NIST Cybersecurity Framework (CSF)

Basic Review of Cybersecurity Practices

Establish or Improve Cybersecurity Program

Communicate CS Requirements with Stakeholders

Buying Decisions

Identify Opportunities for New or Revised Informative References

Methodology to Protect Privacy & Civil Liberties

Summary: Digital Transformation

Knowledge Check – Things you should know

Checkpoint

Chapter 3 - Understanding Cyber Risks

Understanding Cyber Risks

Introduction

Learning Outcomes

Lesson: Cyber Risk Equation

The Problem

Profile of an Attack

Phases of the Kill Chain

MITRE Attack Framework

MITRE Enterprise ATT&CK Framework

The Cyber Risk Equation

Evaluating the Results – What does it all mean?

Lesson: Cyber Risk Components

Cyber Risk Components: Threats

Threats

Cyber Risk Components: Business & Technical Vulnerabilities

Vulnerabilities

Cyber Risk Components: Assets & Information

Asset Value

Cyber Risk Components: Controls

Controls

Cyber Risk: Fighting Back

Risk

Lesson: Basics of Cyber Risk Assessment

Risk Assessments

Risk Management Process

Frame the Risk

Assess the Risk

Respond to the Risk

Monitor the Risk

Key Risk Concepts

Risk Framing Components & Relationships

Organizational Risk Frame

Summary: Understanding Cyber Risks

Knowledge Check – Things you should know

Checkpoint

Chapter 4 - NIST Cybersecurity Framework Fundamentals

NIST Cybersecurity Framework Fundamentals

Introduction

Learning Outcomes

Lesson: NIST-CSF Overview

Cybersecurity Framework: Origins

Key Attributes of NIST-CSF

The Framework is for Organizations ...

The Framework Components

NIST Cybersecurity Framework Components
NIST Cybersecurity Framework as a Guide
The Key Areas of Focus
Why Adopt the NIST CSF?
Benefits of Adopting NIST-CSF
Evolution of NIST-CSF
Lesson: Framework Core, Tiers & Profiles
NIST-CSF Core Functions
Core Function: Goals and Objectives
Framework Core Approach
NIST-CSF Tier
NIST-CSF Implementation Tiers
Key Properties of Cyber Risk Management
Implementation Tiers Approach
Implementation Tiers Example
NIST CSF Framework Profiles
Thinking about a Profile
Profile Information Input
Seven-Step Process
Core, Tiers, Profiles Example
Summary: NCSF Fundamentals
Knowledge Check – Things you should know
Checkpoint

Chapter 5 - Core Functions, Categories & Subcategories: Organizational Cybersecurity Capab

Core Functions, Categories & Subcategories

Introduction
Learning Outcomes
The Five Core Functions
Framework Core Structure
Framework Categories, Subcategories, References
Lesson: Identify
Core Function Identify - Purpose, Goals & Objectives
Identify: Framework Categories
Core Function Identify: Subcategories (AM & BE)
Core Function Identify: Subcategories (GV & RA)
Core Function Identify: Subcategories (RM & SC)
Lesson: Protect
Core Function Protect - Purpose, Goals & Objectives
Protect: Framework Categories
Core Function Protect: Subcategories (AC & AT)
Core Function Protect: Subcategories (DS)
Core Function Protect: Subcategories (IP)
Core Function Protect: Subcategories (MA & PT)
Lesson: Detect
Core Function Detect - Purpose, Goals & Objectives
Detect: Framework Categories

Core Function Detect: Subcategories (AE & CM)

Core Function Detect: Subcategories (DP)

Lesson: Respond

Core Function Respond - Purpose, Goals & Objectives

Respond: Framework Categories

Core Function Respond: Subcategories (RP & CO)

Core Function Respond: Subcategories (AN, MI & IM)

Lesson: Recover

Core Function Recover - Purpose, Goals & Objectives

Recover: Framework Categories

Core Function Recover: Subcategories (RP, IM & CO)

Lesson: Informative References

Informative References

Tailor to Suit

Exploring CIS 20 Critical Controls

Critical Security Controls Overview

CIS Controls – Key Principles for v7.1

CIS Controls-v7

Basic - CIS Controls 1 to 6

CIS-01 to 06 Mapped to NIST Core Functions

Foundational - CIS Controls 7 to 11

Foundational - CIS Controls 12 to 16

CIS-07 to 16 Mapped to NIST Core Functions

Organizational – CIS Controls 17 to 20

CIS-17 to 20 Mapped to NIST Core Functions

Summary: Core Functions, Categories & Subcategories

Knowledge Check – Things you should know

Checkpoint

Chapter 6 - Implementation Tiers & Profiles: Understanding Current & Future Capabilities

Implementation Tiers & Profiles

Introduction

Learning Outcomes

Lesson: Understanding Tiers

NIST Cybersecurity Framework - Tiers

Implementation Tiers

Implementation Tier Objectives

Tier 1: Partial

Tier 2: Risk Informed

Tier 3: Repeatable

Tier 4: Adaptive

Risk Management Practices

Example - Implementation Tiers & Their Use

Lesson: Understanding Profiles

Developing Framework Profiles

Profiles

Framework Profiles

Profile – An Example

Lesson: Creating Profiles

Using the Risk Assessment to Create the Profile

Identify Function: Asset Management Profile

Protect Function: Data Security

Detect Function: Detection Process

Respond Function: Analysis

Recover Function: Recovery Planning

Summary: Developing Framework Profiles

Knowledge Check – Things you should know

Checkpoint

Chapter 7 - Cybersecurity Improvement: Getting “there” from “here”

Cybersecurity Improvement

Introduction

Learning Outcomes

Lesson: Adopt & Adapt

Adopt – The Decision to Move Forward with NIST-CSF

Adapt – Tailor NIST to Your Context

Principles of Adaptation

Customer Drives Value

Start Where You Are

Simplify Everything

Adopt & Apply Systems Thinking

Change is an Organizational Capability

Technology is a Means, Not an End

Create to Overcome Entropy

Lesson: Implement & Improve

Fast Track Concepts

NCSF-Fast Track Controls (NCSF-FT)

Fast Track – Implement/Improve Cycles

Adaptive Approach Reduces Waste, Delivers Value

Lesson: Continual Implementation & Improvement System (CIIS) as a Practice

CIIS Approach

Seven Step Approach

Step 1: Prioritize & Scope

Step 2: Orient

Step 3: Create a Current Profile

Step 4: Conduct a Risk Assessment

Step 5: Create a Target Profile

Step 6: Determine, Analyze, & Prioritize Gaps

Step 7: Implement Action Plan

Summary: Cybersecurity Improvement

Knowledge Check – Things you should know

Checkpoint