



# NIST Cybersecurity Professional Foundation Syllabus

Version 3.0

September 2022

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## Introduction

This document provides the learning outcomes for the course and the assessment criteria used. It also provides an overview of the examination design regarding the types of question asked.

The source materials for this syllabus are:

- NIST Cybersecurity Professional Foundation Framework – course presentation material (slides)
- *Fundamentals of Adopting the NIST Cybersecurity Framework* (book)

Starting with Chapter 2, the table below shows the allocated number of exam marks and the associated Bloom's level. The column headed "Chapter/lesson" refers to the numbering scheme in the course presentation material (slides).

The notation "ff" is used to refer to all subsections in the book source material inclusively (e.g., 2.2ff means section 2.2 and all subsections through to 2.2.2). Any figures or tables included in the listed sections are also part of the study material.

## Syllabus

Ref. #	Chapter/lesson	Learning outcomes	Slide and book references	Marks	Bloom's level
1.0	<b>Ch 2: Digital evolution</b>	<p>Explain what it means to "become digital"</p> <p>Understand the difference between digital evolution and transformation</p> <p>Describe how the threat landscape establishes the need for a national and international response</p> <p>Describe why digital evolution expands the organization's threat surface</p> <p>Explain how cybersecurity supports an organization's digital evolution</p>		2	1–2
1.1	L1: The evolving threat landscape		Slides 2-3 to 2-8 Book 2.2ff, 2.3ff		
1.2	L2: Digital evolution		Slides 2-9 to 2-14 Book 2.1ff		
1.3	L3: NIST-CSF and digital evolution		Slides 2-15 to 2-19		
1.4	L4: Digital evolution and the framework		Slides 2-20 to 2-27		

Ref. #	Chapter/lesson	Learning outcomes	Slide and book references	Marks	Bloom's level
2.0	<b>Ch 3: Understanding cyber risk</b>	Describe the basics of a risk assessment  Identify and describe each step in the cyber kill chain  Describe the risk management process		6	1–2
2.1	L1: Introducing cyber risk		Slides 3-3 to 3-9 Book 3, 3.1ff, 3.2ff, 3.3ff		
2.2	L2: Cyber risk components		Slides 3-10 to 3-20		
2.3	L3: Basics of cyber risk assessment		Slides 3-21 to 3-30		
3.0	<b>Ch 4: NIST-CSF fundamentals</b>	Describe the genesis of the NIST-CSF  List and describe the components of the NIST-CSF  Describe each NIST-CSF objective		9	1–2
3.1	L1: NIST-CSF overview		Slides 4-3 to 4-12 Book 3.2, 3.2.1ff		
3.2	L2: Framework core, tiers and profiles		Slides 4-13 to 4-26 Book 4, 4.1ff, 4.2ff, 4.3ff		
4.0	<b>Ch 5: Core functions, categories and subcategories</b>	Describe and understand: <ul style="list-style-type: none"> <li>● The framework core: <ul style="list-style-type: none"> <li>· Activities</li> <li>· Outcomes</li> <li>· Common informative references</li> </ul> </li> <li>● Core functions</li> <li>● Framework categories</li> <li>● Informative references</li> </ul>		9	1–2
4.1	L1: Identify		Slides 5-6 to 5-11 Book 4.1.1–4.1.3		
4.2	L2: Protect		Slides 5-12 to 5-18 Book 4.1.1–4.1.3		
4.3	L3: Detect		Slides 5-19 to 5-23 Book 4.1.1–4.1.3		
4.4	L4: Respond		Slides 5-24 to 5-28 Book 4.1.1–4.1.3		
4.5	L5: Recover		Slide 5-29 to 5-32 Book 4.1.1–4.1.3		

Ref. #	Chapter/lesson	Learning outcomes	Slide and book references	Marks	Bloom's level
4.6	L6: Informative references		Slides 5-33 to 5-38 Book 4.1.4		
5.0	<b>Ch 6: Implementing tiers and profiles</b>	<p>Understand and explain implementation tier terms and their use</p> <p>Understand and explain each implementation tier</p> <p>Understand and describe the three risk categories</p> <p>Understand and explain profiles and their use:</p> <ul style="list-style-type: none"> <li>● Current</li> <li>● Target</li> </ul> <p>Understand and describe the use of profiles when:</p> <ul style="list-style-type: none"> <li>● Determining gaps</li> <li>● Identifying and prioritizing focus areas</li> </ul>		10	1-2
5.1	L1: Understanding tiers		Slides 6-2 to 6-12 Book 4.2ff		
5.2	L2: Understanding profiles		Slides 6-13 to 6-17 Book 4.3ff		
5.3	L3: Creating profiles		Slides 6-18 to 6-26 Book 4.4ff		
6.0	<b>Ch 7: Beyond the Framework</b>	<p>Understand and describe how an organization can approach the adoption and adaptation of the NIST-CSF</p> <p>Understand and describe how to implement cybersecurity controls using an incremental improvement approach</p> <p>Understand and describe the Create, Protect, and Deliver (CPD) digital business value model</p>		4	1-2
6.1	L1: Adopt and adapt		Slides 7-3 to 7-10 Book 5.1-5.2		
6.2	L2: Establish and innovate		Slides 7-11 to 7-18 Book 5.3ff		
6.3	L3: Create, protect, and deliver digital business value		Slides 7-19 to 7-27 Book 5.3ff		

## Examination design and administration

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### Duration

60 minutes

### Number of questions

40

### Level of knowledge

Bloom's level:

1 – Knowledge

2 – Comprehension

### Delivery

Paper-based, proctored classroom

Online, proctored

Recommended prerequisites: General understanding of IT and how the organization uses IT in value creation

### Format

The examination is “closed book” with 40 multiple-choice questions, each with a single correct answer from four choices (A, B, C, D).

Questions may appear in any of the following forms (sample, not an exhaustive list).

- Which of the following is true, correct, most correct?
- Which of the following statements is NOT correct?
- Which of the following statements addresses X?
- How would you show Y?
- What is ... ?
- What is missing from ... ?
- \_\_\_\_\_ is a correct way to ... ?
- How would you describe ... ?
- How would you explain ... ?
- What is the main idea of ... ?
- Which is the best choice ... ?

### Scoring

Each correct answer is worth 1 point. A score of 60% (24 correct out of 40) is required to pass the examination.

### Examination conduct

Upon successfully completing the course, students will be given a voucher to take the examination at their discretion and timing.