Course 1 overview

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Cybersecurity Certificate. You've begun an exciting journey!

In this course, you will learn the primary job responsibilities and core skills of those who work in the field of cybersecurity. You will explore the eight Certified Information Systems Security Professional (CISSP) security domains, various security frameworks and controls, as well as a foundational security model called the confidentiality, integrity, and availability (CIA) triad. You will also be introduced to some common tools used by security analysts that help protect organizations and people alike.

Certificate program progress

The Google Cybersecurity Certificate program has eight courses. **Foundations of Cybersecurity** is the first course.

Eight icons show courses sequentially from left to right with course 1 highlighted.

1.

    [**Foundations of Cybersecurity**](#) — *(current course)* Explore the cybersecurity profession, including significant events that led to the development of the cybersecurity field and its continued importance to organizational operations. Learn about entry-level cybersecurity roles and responsibilities.

2.

    [**Play It Safe: Manage Security Risks**](#) — Identify how cybersecurity professionals use frameworks and controls to protect business operations, and explore common cybersecurity tools.

3.

Connect and Protect: Networks and Network Security — Gain an understanding of network-level vulnerabilities and how to secure networks.

4.

Tools of the Trade: Linux and SQL — Explore foundational computing skills, including communicating with the Linux operating system through the command line and querying databases with SQL.

5.

Assets, Threats, and Vulnerabilities — Learn about the importance of security controls and developing a threat actor mindset to protect and defend an organization's assets from various threats, risks, and vulnerabilities.

6.

Sound the Alarm: Detection and Response — Understand the incident response lifecycle and practice using tools to detect and respond to cybersecurity incidents.

7.

Automate Cybersecurity Tasks with Python — Explore the Python programming language and write code to automate cybersecurity tasks.

8.

Put It to Work: Prepare for Cybersecurity Jobs — Learn about incident classification, escalation, and ways to communicate with stakeholders. This course closes out the program with tips on how to engage with the cybersecurity community and prepare for your job search.

Course 1 content

Each course of this certificate program is broken into weeks. You can complete courses at your own pace, but the weekly breakdowns are designed to help you finish the entire Google Cybersecurity Certificate in about six months.

What's to come? Here's a quick overview of the skills you'll learn in each week of this course.

Week 1: Welcome to the exciting world of cybersecurity

Five icons show the course followed by the four weeks sequentially from left to right with week 1 highlighted.

Begin your journey into cybersecurity! You'll explore the cybersecurity field, and learn about the job responsibilities of cybersecurity professionals.

Week 2: The evolution of cybersecurity

Five icons show the course followed by the four weeks sequentially from left to right with week 2 highlighted.

You will explore how cybersecurity threats have appeared and evolved alongside the adoption of computers. You will also understand how past and present cyber attacks have influenced the development of the security field. In addition, you'll get an overview of the eight security domains.

Week 3: Protect against threats, risks, and vulnerabilities

Five icons show the course followed by the four weeks sequentially from left to right with week 3 highlighted.

You will learn about security frameworks and controls, which are used to mitigate organizational risk. You'll cover principles of the CIA triad and various National Institute of Standards and Technology (NIST) frameworks. In addition, you'll explore security ethics.

Week 4: Cybersecurity tools and programming languages

Five icons show the course followed by the four weeks sequentially from left to right with week 4 highlighted.

You'll discover common tools used by cybersecurity analysts to identify and eliminate risk. You'll learn about security information and event management (SIEM) tools, network protocol analyzers, and programming languages such as Python and SQL.

What to expect

Each course offers many types of learning opportunities:

- **Videos** led by Google instructors teach new concepts, introduce the use of relevant tools, offer career support, and provide inspirational personal stories.

- **Readings** build on the topics discussed in the videos, introduce related concepts, share useful resources, and describe case studies.

- **Discussion prompts** explore course topics for better understanding and allow you to chat and exchange ideas with other learners in the discussion forums.

- **Self-review activities** and **labs** give you hands-on practice in applying the skills you are learning and allow you to assess your own work by comparing it to a completed example.

- **Interactive plug-ins** encourage you to practice specific tasks and help you integrate knowledge you have gained in the course.

- **In-video quizzes** help you check your comprehension as you progress through each video.

- **Practice quizzes** allow you to check your understanding of key concepts and provide valuable feedback.

- **Graded quizzes** demonstrate your understanding of the main concepts of a course. You must score 80% or higher on each graded quiz to obtain a certificate, and you can take a graded quiz multiple times to achieve a passing score.

Tips for success

- It is strongly recommended that you go through the items in each lesson in the order they appear because new information and concepts build on previous knowledge.

- Participate in all learning opportunities to gain as much knowledge and experience as possible.

- If something is confusing, don't hesitate to replay a video, review a reading, or repeat a self-review activity.

- Use the additional resources that are referenced in this course. They are designed to support your learning. You can find all of these resources in the [Resources](#) tab.

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When you encounter useful links in this course, bookmark them so you can refer to the information later for study or review.

- Understand and follow the [Coursera Code of Conduct](#) to ensure that the learning community remains a welcoming, friendly, and supportive place for all members.