

Introduction to Course 4

Hi! Welcome to this course on computing basics for security.

My name is Kim, and I work as a Technical Program Manager in security.

I grew up with computers and the internet but didn't really consider security as a career opportunity until I saw how it was interwoven into technology.

Before my first security job, I worked on a cloud application team and had to regularly interact with the security team.

It was my first experience working with security, but the idea of protecting information and working with others towards that goal was exciting to me.

As a result, I decided to work towards my CISSP, which led me to some new job opportunities at my company, and I was then able to move into security.

At this point, if you've been following along, you've already explored a variety of concepts useful to the security field, including security domains and networking.

I'm excited to join you during the next part of the program.

We'll take it slow so that you can understand these topics in practical ways.

The focus of this course is computing basics.

When you understand how the machines in an organization's system work, it helps you do your job as a security analyst more efficiently.

Part of your job as a security analyst is to keep systems protected from possible attacks.

You're one of the first levels of defense in protecting an organization's data.

To do this effectively, it's helpful to understand how the system you're protecting works.

In addition, you may need to investigate events to help correct errors in the system.

Being familiar with Linux operating system and its associated commands, and also being able to interact with

an organization's data through SQL, will help you with that.

In this course, you'll learn about operating systems and how they relate to applications and hardware.

Next, you'll explore the Linux operating system in more detail.

Then you'll use the Linux command line within a security context.

Finally, we'll discuss how you can use SQL to query databases while working as a security analyst.

I'm excited to explore all of these topics with you. Let's get started.

Course 4 content

because im legally not allowed to tell you the contents of the quizzes or its answers, the contents of the self review activities or interactive plugins. i wont be sharing that stuff but if you learn whats in this book you can probs do the quizzes pretty easily. however if you suck at writing idk maybe not so easily.

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: Introduction to operating systems

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

You will learn about the relationship between operating systems, hardware, and software, and become familiar with the primary functions of an operating system. You'll recognize common operating systems in use today and understand how the graphical user interface (GUI) and command-line interface (CLI) both allow users to interact with the operating system.

Week 2: The Linux operating system

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

You will be introduced to the Linux operating system and learn how it is commonly used in cybersecurity. You'll also learn about Linux architecture and common Linux distributions. In addition, you'll be introduced to the Linux shell and learn how it allows you to communicate with the operating system.

Week 3: Linux commands in the Bash shell

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

You will be introduced to Linux commands as entered through the Bash shell. You'll use the Bash shell to navigate and manage the file system and to authorize and authenticate users. You'll also learn where to go for help when working with new Linux commands.

Week 4: Databases and SQL

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

You will practice using SQL to communicate with databases. You'll learn how to query a database and filter the results. You'll also learn how SQL can join multiple tables together in a query.

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.
 - the following are available exclusively on Coursera
- **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.

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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.
- 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.

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