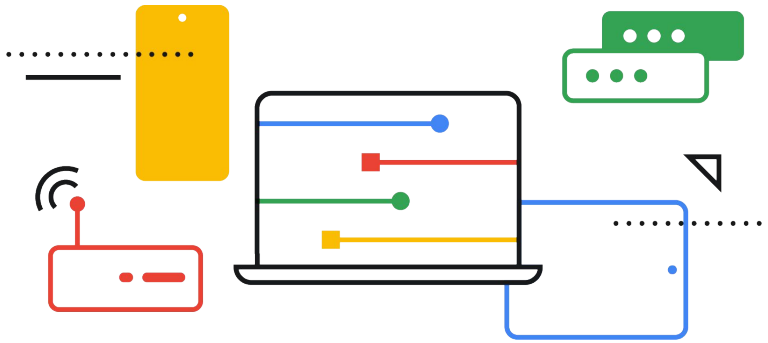
Google IT Support Certificate



Key Competencies & Job Mapping

Grow with Google

Developing talent for in-demand jobs

GOOGLE CAREER CERTIFICATES

Google Career Certificates give learners the skills they need to apply for more than 2.4 million in-demand jobs with a median salary of $76,000+ [1] across the fields of cybersecurity, data analytics, digital marketing & e-commerce, IT support, project management, and user experience (UX) design. Google Career Certificates are taught and developed by Google employees working in these fields; they are hands-on, practical, and rigorous. A Google Career Certificate can be completed in under 6 months at a suggested pace of 10 hours a week or less. 75% of certificate graduates report a positive career outcome (e.g., new job, promotion, or raise) within six months of completion.[2]

GOOGLE IT SUPPORT CERTIFICATE

The Google IT Support Certificate teaches learners the foundations of networking and operating systems or how to solve problems using code.

Learners can earn a recommendation of 15 college credits for completing the IT Support Certificate, the equivalent of 5 college courses at bachelor's degree level (link).

This certificate program is for anyone who wants to enter the field of IT; no prior experience or specific knowledge is required.

520K+
open jobs in IT Support[3]

$57K
median salary in IT Support (0-5 years of experience)[3]

THE GOOGLE IT SUPPORT CERTIFICATE PREPARES LEARNERS FOR IN-DEMAND JOBS SUCH AS:

- IT support technician
- Help desk technician
- IT specialist
- Tech support specialist
- IT support specialist
- IT technician

[1] Lightcast™ US Job Postings (2022: Jan. 1, 2022 - Dec. 31, 2022).
[2] Based on program graduate survey, United States 2022
[3] Lightcast™ US Job Postings (2022: Jan. 1, 2022 - Dec. 31, 2022).

Program overview

Upon completing the **Google IT Support Certificate**, Program graduates will:

- Understand core concepts to all IT Support jobs, including troubleshooting, customer service, networking, system administration, operating systems, and security.
- Know how to assemble a computer, write effective support documentation, route paths and subnets, manage device software, and more.
- Dive into working with Linux, Cloud Computing, and Command-Line Interfaces.

Certificate graduates who also pass the CompTIA A+ certification exams will earn a dual credential from CompTIA and Google.

Troubleshooting

Customer support

Networking

System administration

Operating systems

Security

Course 1
Technical Support Fundamentals

Course 2
The Bits and Bytes of Computer Networking

Course 3
Operating Systems and You: Becoming a Power User

Course 4
System Administration and IT Infrastructure Services

Course 5
IT Security: Defense Against the Digital Dark Arts

CONTENT BREAKDOWN:

438 Videos

151 Readings

108 Quizzes

24 Hands-on Exercises

4 Writing Assignments

Course 1 — Technical Support Fundamentals

In this course, we introduce the world of Information Technology, or IT. We cover the different facets of Information Technology, like computer hardware, the Internet, computer software, troubleshooting, and customer service.

By the end of this course, learners will be able to:

- Understand how the binary system works.
- Assemble a computer from scratch.
- Choose and install an operating system on a computer.
- Understand what the Internet is, how it works, and the impact it has in the modern world.
- Learn how applications are created and how they work under the hood of a computer.
- Utilize common problem-solving methodologies and soft skills in an Information Technology setting.

SKILLS ACQUIRED:

- ❏ Binary code
- ❏ Customer support
- ❏ Linux
- ❏ Troubleshooting

TOPICS:

- ★ Introduction to IT
- ★ Hardware
- ★ Operating system
- ★ Networking
- ★ Software
- ★ Troubleshooting

CONTENT BREAKDOWN:

	86	Videos
	18	Readings
	17	Quizzes
	4	Hands-on Exercises
	1	Writing Assignment

Course 2 — The Bits and Bytes of Computer Networking

This course is designed to provide a full overview of computer networking. We cover everything from the fundamentals of modern networking technologies and protocols to an overview of the cloud to practical applications and network troubleshooting.

By the end of this course, learners will be able to:

- Describe computer networks in terms of a five-layer model.
- Understand all of the standard protocols involved with TCP/IP communications.
- Grasp powerful network troubleshooting tools and techniques learn network services like DNS and DHCP that help make computer networks run.
- Understand cloud computing, everything as a service, and cloud storage.

SKILLS ACQUIRED:

- ❑ Domain name system (DNS)
- ❑ Ipv4
- ❑ Network model
- ❑ Troubleshooting

TOPICS:

- ★ Introduction to networking
- ★ The network layer
- ★ The transport and application layers
- ★ Networking services
- ★ Connecting to the internet
- ★ Troubleshooting and the future of networking

CONTENT BREAKDOWN:

88 Videos

20 Readings

34 Quizzes

1 Writing Assignment

Course 3 — Operating Systems and You: Becoming a Power User

In this course — through a combination of video lectures, demonstrations, and hands-on practice — we cover the main components of an operating system and how to perform critical tasks like managing software and users, and configuring hardware.

By the end of this course, learners will be able to:

- Navigate the Windows and Linux filesystems using a graphical user interface and command line interpreter.
- Set up users, groups, and permissions for account access.
- install, configure, and remove software on the Windows and Linux operating systems.
- Configure disk partitions and filesystems.
- Understand how system processes work and how to manage them.
- Work with system logs and remote connection tools.
- Utilize operating system knowledge to troubleshoot common issues.

SKILLS ACQUIRED:

- ❑ Powershell
- ❑ Linux file systems
- ❑ Linux
- ❑ Command-line interface

TOPICS:

- ★ Navigating the system
- ★ Users and permissions
- ★ Package and software management
- ★ Filesystems
- ★ Process management
- ★ Operating systems in practice

CONTENT BREAKDOWN:

	105	Videos
	47	Readings
	14	Quizzes
	12	Hands-on Exercises

Course 4 — System Administration and IT Infrastructure Services

This course transitions from working on a single computer to an entire fleet. In this course, we cover the infrastructure services that keep all organizations, big and small, up and running. We deep dive on cloud to understand everything from typical cloud infrastructure setups to how to manage cloud resources. We also cover how to manage and configure servers and how to use industry tools to manage computers, user information, and user productivity. Finally, we cover how to recover your organization's IT infrastructure in the event of a disaster.

By the end of this course, learners will be able to:

- Utilize best practices for choosing hardware, vendors, and services for their organization.
- Understand how the most common infrastructure services work, and how to manage infrastructure servers.
- Understand how to make the most of the cloud for their organization.
- Manage an organization's computers and users using the directory services, Active Directory, and OpenLDAP.
- Choose and manage the tools that their organization will use.
- Backup their organization's data and know how to recover their IT infrastructure in the case of a disaster.
- Utilize systems administration knowledge to plan and improve processes for IT environments.

SKILLS ACQUIRED:

- ❑ Directory service
- ❑ Lightweight directory access protocol (LDAP)
- ❑ Backup

TOPICS:

- ★ What is system administration?
- ★ Network and infrastructure Services
- ★ Software and platform services
- ★ Directory services
- ★ Data recovery & backups

CONTENT BREAKDOWN:

	86	Videos
	34	Readings
	20	Quizzes
	5	Hands-on Exercises
	1	Writing Assignment

Course 5 — IT Security: Defense Against the Digital Dark Arts

This course covers a wide variety of IT security concepts, tools, and best practices. It introduces threats and attacks and the many ways they can show up. We provide some background of encryption algorithms and how they're used to safeguard data. Then, we dive into the three As of information security: authentication, authorization, and accounting. We also cover network security solutions, ranging from firewalls to Wifi encryption options. The course is rounded out by putting all these elements together into a multi-layered, in-depth security architecture, followed by recommendations on how to integrate a culture of security into an organization or team.

By the end of this course, learners will be able to understand:

- How various encryption algorithms and techniques work as well as their benefits and limitations.
- Various authentication systems and types.
  the difference between authentication and authorization.
- How to evaluate potential risks and recommend ways to reduce risk.
- Best practices for securing a network.
- How to help others to grasp security concepts and protect themselves.

SKILLS ACQUIRED:

- ❑ Cybersecurity
- ❑ Wireless security
- ❑ Cryptography
- ❑ Network security

TOPICS:

- ★ Understanding security threats
- ★ Cryptology
- ★ "Three A's" in cybersecurity
- ★ Securing your networks
- ★ Defense in depth
- ★ Creating a company culture for security

CONTENT BREAKDOWN:

	73	Videos
	32	Readings
	23	Quizzes
	3	Hands-on Exercises
	1	Writing Assignment