GCP certifications

Google Cloud certifications validate your expertise and showcase your ability to transform businesses with Google Cloud technology. Take the first step in your Google Cloud learning journey. Get hands on experience and earn a Google Cloud-recognized badge.

- 78% of Google Cloud certified individuals report feeling more confident in their professional future.
- More than 1 in 4 of Google Cloud certified individuals took on more responsibility or leadership roles at work.*
- 87% of Google Cloud certified individuals are more confident about their cloud skills.

*Based on survey responses from the 2020 Google Cloud certification impact report.
Infrastructure modernization
Master implementing, deploying, migrating, and maintaining applications on cloud infrastructure.

Google Cloud runs on the same global infrastructure that powers YouTube, Gmail, and other Google products used by billions of people around the world. Learn about Google Cloud's approach to infrastructure and implementing, deploying, migrating, and maintaining applications.

Application modernization
Modernize your legacy services or build cloud-native applications using Google Cloud's end-to-end solutions.

In 2020, cloud roles were among the top 10 most in-demand IT roles. Learn how to modernize your legacy services or build cloud-native applications using Google Cloud's end-to-end solutions with this learning path.

The courses in this learning path are designed for application developers and programmers who want to learn how to design, develop, and deploy cloud applications.

Machine learning and artificial intelligence
Implement end-to-end machine learning models and learn how to deploy the latest artificial intelligence tools to power your applications.

Did you know that the adoption of machine learning results in 2x more data-driven decisions, 5x faster decision-making, and 3x faster execution?

Learn how to implement the latest machine learning and artificial intelligence technology by exploring training on BigQuery, Datalab, TensorFlow, Cloud Vision, Natural Language API, and more.

Smart analytics and data management
Leverage data and gain real-time insights to improve decision-making and accelerate innovation. Design and build data processing systems on Google Cloud.

The need for data analysis skills grew by 86% from 2013 to 2018. Become data-driven with Google Cloud. Leverage data and gain real-time insights that improve your decision-making and accelerate innovation. Learn how to design and build data processing systems.

Networking and security
Learn how to manage and scale your networks, and how the Google Cloud security model can help protect your technology stack.

Google Cloud networking makes it easy to manage, scale, and secure your networks. Learn how to implement load balancing and content delivery (Cloud CDN) or optimize your network for performance and cost.

Productivity and collaboration
Pave the way for seamless collaboration with solutions designed for humans and built for impact. Learn how to administer products like Gmail, Docs, Drive, and Meet.

Understanding how to use Google Workspace can help each user in your organization get back 21 days per year in time savings. Learn how products like Gmail, Docs, Drive, and Meet help your team reimagine the way they work and how deeply they collaborate.
### Certification Overview

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<th>Foundational</th>
<th>Associate</th>
<th>Professional</th>
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<tr>
<td><strong>Recommended experience:</strong> No hands-on experience with Google Cloud is required.</td>
<td><strong>Recommended experience:</strong> 6+ months building on Google Cloud.</td>
<td><strong>Recommended experience:</strong> 3+ years industry experience, including 1+ years on Google Cloud.</td>
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<th>Business stakeholder</th>
<th>Cloud Digital Leader</th>
<th>Cloud Engineer</th>
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Cloud Digital Leader
A Cloud Digital Leader can articulate the capabilities of Google Cloud core products and services and how they benefit organizations. The Cloud Digital Leader can also describe common business use cases and how cloud solutions support an enterprise.

The Cloud Digital Leader exam is job-role agnostic and does not require hands-on experience with Google Cloud.

Prerequisites
• None

Recommended experience
• None

Recommended Training
Introduction to Digital Transformation with Google Cloud*
Innovating with Data and Google Cloud*
Infrastructure and Application Modernization with Google Cloud*
Understanding Google Cloud Security and Operations*

*This course is only available via Google direct.

Required Exam
Cloud Digital Leader

What's next?
Certification path complete
View GCP’s recertification policy here
Cloud Engineer - Associate
An Associate Cloud Engineer deploys applications, monitors operations, and manages enterprise solutions. This individual is able to use Google Cloud Console and the command-line interface to perform common platform-based tasks to maintain one or more deployed solutions that leverage Google-managed or self-managed services on Google Cloud.

Prerequisites
• None

Recommended experience
• 6 months+ hands-on experience with Google Cloud.

Recommended Training
Google Cloud Platform Fundamentals: Core Infrastructure (GCPFCI)
Architecting with Google Compute Engine (GCPACCP)
Getting started with Google Kubernetes engine (GCPGSGKE)
Google Cloud Platform: Preparing for the Associate Cloud Engineer Examination (GCPPACEE)

Required Exam
Cloud Engineer – Associate

*This course is only available via Google direct.

What’s next?
Certification path complete
View GCP’s recertification policy here
Cloud Architect - Associate
A Professional Cloud Architect enables organizations to leverage Google Cloud technologies. With a thorough understanding of cloud architecture and Google Cloud Platform, this individual can design, develop, and manage robust, secure, scalable, highly available, and dynamic solutions to drive business objectives.

Prerequisites
• None

Recommended experience
• 3+ years of industry experience including 1+ years designing and managing solutions using GCP.

Recommended Training
Google Cloud Platform Fundamentals: Core Infrastructure (GCPFCI)
Architecting with Google Compute Engine (GCPAGCP)
Architecting with Google Cloud Platform: Design and Process (GCPADP)
Getting started with Google Kubernetes engine (GCPCSGKE)
Preparing for the Professional Cloud Architect Examination (GCPPPCAE)

Required Exam
Cloud Architect – Professional

What’s next?
Certification path complete
View GCP’s recertification policy here
Cloud Developer – Professional
A Professional Cloud Developer builds scalable and highly available applications using Google-recommended practices and tools. This individual has experience with cloud-native applications, developer tools, managed services, and next-generation databases. A Professional Cloud Developer also has proficiency with at least one general-purpose programming language and is skilled at producing meaningful metrics and logs to debug and trace code.

Prerequisites
• None

Recommended experience
• 3+ years of industry experience including 1+ years designing and managing solutions using Google Cloud.

Recommended Training
- Google Cloud Platform Fundamentals: Core Infrastructure (GCPFCI)
- Developing Applications with Google Cloud Platform (GCPDA)
- Getting started with Google Kubernetes engine (GCPGKE)

Required Exam
Cloud Developer – Professional

What’s next?
Certification path complete
View GCP’s recertification policy here
Cloud DevOps Engineer – Professional
A Professional Cloud DevOps Engineer is responsible for efficient development operations that can balance service reliability and delivery speed. They are skilled at using Google Cloud Platform to build software delivery pipelines, deploy and monitor services, and manage and learn from incidents.

Prerequisites
• None

Recommended experience
• 3+ years of industry experience including one+ years managing solutions on GCP.

Recommended Training
Google Cloud Platform Fundamentals: Core Infrastructure (GCPFCI)
Developing a Google SRE Culture*
Architecting with Google Cloud Platform: Design and Process (GCPADP)
Logging, Monitoring, and Observability in Google Cloud*

Required Exam
Cloud DevOps Engineer – Professional

What’s next?
Certification path complete
View GCP’s recertification policy here
Data Engineer - Professional
A Professional Data Engineer enables data-driven decision making by collecting, transforming, and publishing data. A Data Engineer should be able to design, build, operationalize, secure, and monitor data processing systems with a particular emphasis on security and compliance; scalability and efficiency; reliability and fidelity; and flexibility and portability. A Data Engineer should also be able to leverage, deploy, and continuously train pre-existing machine learning models.

Prerequisites
• None

Recommended experience
• 3+ years of industry experience including 1+ years designing and managing solutions using GCP.

Recommended Training
Google Cloud Fundamentals: Big Data and Machine Learning (GCPFBDML)
Data Engineering on Google Cloud Platform (GCPDEGP)
Serverless Data Processing with Dataflow*
Preparing for the Professional Data Engineer Examination (GCPPDEE)

Required Exam
Data Engineer – Professional

What’s next?
Certification path complete
View GCP’s recertification policy here
Cloud Network Engineer - Professional
A Professional Cloud Network Engineer implements and manages network architectures in Google Cloud Platform. This individual has at least 1 year of hands-on experience working with Google Cloud Platform and may work on networking or cloud teams with architects who design the infrastructure. By leveraging experience implementing VPCs, hybrid connectivity, network services, and security for established network architectures, this individual ensures successful cloud implementations using the command line interface or the Google Cloud Platform Console.

Prerequisites
• None

Recommended experience
• 3+ years of industry experience including 1+ years designing and managing solutions using GCP.

Recommended Training
Google Cloud Platform Fundamentals: Core Infrastructure (GCPFCI)
Networking in Google Cloud Platform (GCPNWGCP)

Required Exam
Cloud Network Engineer – Professional

What’s next?
Certification path complete
View GCP’s recertification policy here
Cloud Security Engineer - Professional
A Professional Cloud Security Engineer enables organizations to design and implement a secure infrastructure on Google Cloud Platform. Through an understanding of security best practices and industry security requirements, this individual designs, develops, and manages a secure infrastructure leveraging Google security technologies. The Cloud Security Professional should be proficient in all aspects of Cloud Security including managing identity and access management, defining organizational structure and policies, using Google technologies to provide data protection, configuring network security defenses, collecting and analyzing Google Cloud Platform logs, managing incident responses, and an understanding of regulatory concerns.

Prerequisites
• None

Recommended experience
• 3+ years of industry experience including 1+ years designing and managing solutions using GCP.

Recommended Training
Google Cloud Platform Fundamentals: Core Infrastructure (GCPFCI)
Networking in Google Cloud Platform (GCPNWGCP)
Security in Google Cloud Platform (GCPSECGCP)

Required Exam
Cloud Security Engineer – Professional

What’s next?
Certification path complete
View GCP’s recertification policy here
**Machine Learning Engineer - Professional**

A Professional Machine Learning Engineer designs, builds, and productionizes ML models to solve business challenges using Google Cloud technologies and knowledge of proven ML models and techniques. The ML Engineer considers responsible AI throughout the ML development process, and collaborates closely with other job roles to ensure long-term success of models. The ML Engineer should be proficient in all aspects of model architecture, data pipeline interaction, and metrics interpretation. The ML Engineer needs familiarity with foundational concepts of application development, infrastructure management, data engineering, and data governance. Through an understanding of training, retraining, deploying, scheduling, monitoring, and improving models, the ML Engineer designs and creates scalable solutions for optimal performance.

**Prerequisites**
- None

**Recommended experience**
- 3+ years of industry experience including 1+ years designing and managing solutions using Google Cloud.

**Recommended Training**
- Google Cloud Fundamentals: Big Data and Machine Learning (GCPFBDM)
- Machine Learning on Google Cloud*
- Advanced Machine Learning with TensorFlow on Google Cloud Platform*
- MLOps (Machine Learning Operations) Fundamentals*
- ML Pipelines on Google Cloud*

*This course is only available via the Partner Solutions team.

**Required Exam**
- Machine Learning Engineer - Professional

**What’s next?**
- Certification path complete
- View GCP’s recertification policy here
Collaboration Engineer - Professional
A Professional Collaboration Engineer transforms business objectives into tangible configurations, policies, and security practices as they relate to users, content, and integrations. Collaboration Engineers leverage their understanding of their organization’s mail routing and identity management infrastructure to enable efficient and secure communication and data access. Operating with an engineering and solutions mindset, they use tools, programming languages, and APIs to automate workflows. They look for opportunities to educate end users and increase operational efficiency while advocating for Google Workspace and the Google toolset.

**Prerequisites**
- None

**Recommended experience**
- 3+ years of industry experience including 1+ year Google Workspace (formerly G Suite) administration experience.

**Recommended Training**
- Getting Started with Google Workspace*
- Google Workspace Administration*

**Required Exam**
- Collaboration Engineer – Professional

*This course is only available via the Partner Solutions team.

What’s next?
Certification path complete
View GCP’s recertification policy here