



COURSE CURRICULUM · GOOGLE CLOUD

ACE: Google Associate Cloud Engineer

Deploy and run workloads on Google Cloud from the console and command line — and prepare for the Associate Cloud Engineer exam.

DURATION

3 days · 24 hours

LEVEL

Intermediate

CURRICULUM

9 modules · 7 labs

DELIVERY

Live online, Onsite,
Corporate

Course overview

Associate Cloud Engineers are the people who make things work on Google Cloud: they set up projects and billing, deploy applications, configure networks and access, and keep workloads running. The certification is hands-on in spirit, and so is this three-day course, which places the gcloud command line and the console side by side from the first hour.

Day one establishes the environment: resource hierarchy, projects, billing accounts and budgets, Cloud IAM roles and service accounts, and the tools you will use every day, including Cloud Shell and the gcloud CLI. Day two is deployment: Compute Engine instances, managed instance groups and load balancing, Google Kubernetes Engine, Cloud Run and Cloud Functions, plus storage and database choices such as Cloud Storage, Cloud SQL, Firestore and BigQuery.

Day three focuses on networking and operations: VPCs, subnets, firewall rules, Cloud NAT and hybrid options, then monitoring and logging with Cloud Monitoring and Cloud Logging, managing snapshots and images, and infrastructure as code with Terraform. Security is reinforced throughout with least-privilege IAM, service account management and audit logs.

Each topic ends with a lab, and the final session reviews exam technique with practice questions. This course is aligned to the Associate Cloud Engineer exam and prepares you for it; confirm the current exam guide on the Google Cloud certification site before booking.

Highlights

- 24 hours of live, hands-on training
- Labs with gcloud, Compute Engine, GKE and Cloud Run
- IAM, networking and operations in practice
- Mapped to the Associate Cloud Engineer exam sections
- Weekday and weekend batches in IST and Gulf Time

What's included

- Console and gcloud CLI used side by side
- Labs across compute, containers, storage and networking
- Least-privilege IAM and service account practice
- Monitoring, logging and alerting setup
- Introduction to Terraform on Google Cloud
- Practice questions with explained answers
- Course completion certificate from Ace Skills Consulting

Who this course is for

Who should attend

- System administrators moving to Google Cloud
- Cloud and DevOps engineers starting with Google Cloud
- Developers who deploy and operate their own applications
- Cloud Digital Leader holders progressing to a technical role

Prerequisites

- Basic Linux command-line skills
- Networking fundamentals such as IP addressing and DNS
- General familiarity with cloud concepts

Detailed curriculum — 3 days, 24 hours, 9 modules, 7 hands-on labs

Day 1 Setting Up the Cloud Environment

8 hours

1.1 Resource hierarchy and billing

- Organisations, folders and projects
- Billing accounts, budgets and exports
- Quotas and APIs
- Cloud Shell and the gcloud CLI

LAB Create a project, link billing and set a budget alert with gcloud · 35 min

1.2 Identity and access

- Basic, predefined and custom roles
- Service accounts and keys
- Workload identity concepts
- Policy inheritance and auditing

LAB Grant least-privilege roles and use a service account from a VM · 45 min

1.3 Planning a solution

- Choosing compute options
- Choosing storage and database options
- Pricing Calculator estimates

Day 2 Deploying and Implementing Solutions

8 hours

2.1 Compute Engine

- Machine types, disks and images
- Instance templates and managed instance groups
- Autoscaling and autohealing
- Load balancer types

LAB Deploy an autoscaled managed instance group behind a load balancer · 60 min

2.2 Containers and serverless

- GKE Standard and Autopilot clusters
- Deployments, services and scaling
- Cloud Run services and revisions
- Cloud Functions triggers

LAB Deploy an application to GKE Autopilot and Cloud Run · 55 min

2.3 Storage and databases

- Cloud Storage classes and lifecycle rules
- Cloud SQL and Firestore
- BigQuery datasets and loading data
- Spanner and Bigtable at a glance

LAB Create a Cloud SQL instance and connect from Cloud Run · 40 min

Day 3 Networking, Operations & Exam Readiness

8 hours

3.1 VPC networking

- Custom-mode VPCs and subnets
- Cloud NAT and Private Google Access
- Cloud VPN overview
- Firewall rules and network tags
- Shared VPC and VPC peering

LAB Build a custom VPC with firewall rules and Cloud NAT · 45 min

3.2 Operations

- Cloud Monitoring dashboards and alerts
- Snapshots and image management
- Cloud Logging and log sinks
- Infrastructure as code with Terraform

LAB Create an uptime check, alert policy and log sink · 40 min

3.3 Exam readiness

- Exam section recap
- Timed practice set with review
- Command-syntax question patterns

Skills and tools

Skills you will build

gcloud CLI

Cloud IAM

Compute Engine

Managed instance groups

Cloud Load Balancing

Google Kubernetes Engine

Cloud Run

Cloud Storage

Cloud SQL

BigQuery

VPC networking

Cloud Monitoring

Cloud Logging

Terraform

Tools used in class

Google Cloud console

gcloud CLI

Cloud Shell

kubectl

Terraform

Google Cloud Pricing Calculator

Certification exam

This course is aligned to the exam below and prepares you for it. The exam itself is booked and taken with the vendor.

Exam	Google Cloud Certified – Associate Cloud Engineer
Exam code	ACE
Questions	50–60
Duration	120 minutes
Format	Multiple choice, Multiple response
Delivery	Online proctored, Test centre
Official page	https://cloud.google.com/learn/certification/cloud-engineer

Exam skill areas covered

• Managing the Google Cloud environment
• Command-line access and automation
• Designing and implementing a cloud solution

Exam details are pending verification. Confirm the current exam code, format and fee on the official vendor page before booking.

Frequently asked questions

Do I need Cloud Digital Leader first?

No. If you have basic Linux and networking skills, you can start directly with Associate Cloud Engineer.

Is the exam hands-on?

The exam uses multiple-choice and multiple-select questions, but many ask about specific commands and configurations, so hands-on practice is essential.

Will I work in a real Google Cloud project?

Yes. Labs run in Google Cloud projects, and setup instructions are shared before Day 1.

I know AWS or Azure. Will this course help?

Yes. The trainer maps Google Cloud concepts to their AWS and Azure equivalents where helpful, which speeds up learning.

Do you offer corporate batches?

Yes. Private batches can be aligned with your organisation's Google Cloud environment and policies.

Book a batch or talk to an advisor

Course page: aceskillsconsulting.com/course/ace-google-associate-cloud-engineer · Email: info@aceskillsconsulting.com

Chennai office

Guindy, Chennai, Tamil Nadu

Delhi office

B-95, Old Post Office Street, Shakarpur
New Delhi 110092
Office: 98180 12523

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