

# BECOME AN INTEL® CERTIFIED PRO

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# CLOUD FUNDAMENTALS



Cloud Fundamentals provides a solid foundation in cloud computing. Learn to design, recommend, leverage, and implement workloads and solutions in the private, public, or hybrid cloud and at the edge.

This curriculum is designed for IT solutions and technology professionals or managers, developers, and business professionals interested in the cloud industry.

## LEARNING OBJECTIVES

- Build knowledge of cloud service providers' offerings and learn to identify and recommend cloud instances for specific solutions.
- Prepare to describe cloud computing benefits, cost modeling, solution scalability, and business agility from public and private cloud to the edge.
- Understand the unique value and benefits that Intel brings to the cloud.
- Learn how to deploy and manage solutions optimally in the cloud—including AI, orchestration, networking, and media workloads.
- Broaden knowledge of cloud security, data protection, network security, identity, access management, and compliance.

## RECOMMENDED EXPERIENCE

Knowledge of, and experience with, IT hardware and software technologies and deployment.

## CURRICULUM

10

courses

15

hours to complete  
(estimated)

1

hands-on lab

Upon completion of the Cloud Fundamentals coursework, take the proctored exam to achieve recognition as an Intel® Certified Pro.

# CLOUD FUNDAMENTALS

## Course 1

### CLOUD ESSENTIALS

Cloud Essentials includes cloud migration, cloud architecture, ecosystem, and mainstream cloud computing definitions. Principles of cloud consumption, abstraction of workloads, big data, and AI are covered, along with the most-used cloud services.

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## Course 2

### CLOUD SERVICES

Building on Cloud Essentials, the Cloud Services course includes core services and principles for cloud, scaling cloud workloads, networking in the cloud and virtual private clouds, data security, IAM, and the shared security model. It concludes with cloud migration, including business rationale, examples, and the “6 Rs” of cloud migration.

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## Course 3

### CLOUD TECHNOLOGIES

Cloud Technologies covers pro topics, including cloud orchestration objectives and the orchestration marketplace, software-defined networking, and software-defined storage components and challenges. It closes with a review of the benefits delivered by virtualization and container deployment and use.

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## Course 4

### DATA PLATFORM

The Data Platform course covers data trends and terms, a pro dive into SQL and NoSQL databases, data storage, data processing and analytics, and security topics that include risk assessment, security frameworks, models, and deployment scenarios.

# CLOUD FUNDAMENTALS

## Course 5

### CLOUD USAGE

The Cloud Usage course examines the enterprise cloud ecosystem, building on knowledge of cloud deployments gained in previous Cloud Fundamentals courses. Learn about application architecture and development, workload placement, enterprise personas, and the business considerations that are often critical to enterprise cloud decisions.

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## Course 6

### CLOUD HYPERSCALERS

Cloud hyperscalers are the companies that provide computing capabilities, databases, storage, software, and services at massive scale. Learners will become familiar with cloud hyperscaler offerings and who the hyperscalers are. Additionally, this course shares an overview of the hyperscalers, their offerings, and how to integrate cloud workloads with data center deployments.

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## Course 7

### AI IN THE CLOUD

AI in the cloud is growing rapidly. In this course, learners will become familiar with AI portfolios and deployment considerations for AI workloads with the hyperscalers and finish with a review of CSPs' current AI portfolio offerings.

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## Course 8

### CLOUD NETWORKING

In the Cloud Networking course, learners will be introduced to the critical role of networks, focusing on network topologies, protocols, architecture security, as well as edge, content delivery networks (CDNs), secure access service edge (SASE), and universal customer premises equipment (uCPE). This course also covers network function virtualization (NFV), the use of IaaS for networking, and high-performance networking challenges and solutions. The course closes with lessons on open source networking projects and the industry evolution to cloud native.

## CLOUD FUNDAMENTALS

### Course 9

#### EDGE TO CLOUD

Edge to Cloud is a critical topic in the cloud discussion. Beginning with definitions of multiple edge types, the course will consider market trends, opportunities, challenges and considerations, and edge-to-cloud use cases. We will also review silicon- and hardware-based technologies, software and open source, and the partner ecosystem.

### Course 10

#### OVERVIEW OF MEDIA WORKLOADS

In Overview of Media Workloads, we start with the industry background for media use cases. Learners will become familiar with video basics, including codecs, quality, use of containers, and video preprocessing. We finish with media workflow, which includes media pipeline, production, video compression, preparation, and streaming. Learners will optimize a video workload in an interactive, hands-on lab.



Includes Cloud Media Stack hands-on lab.

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COMPLETE YOUR CERTIFICATION.  
RUN THE CLOUD.**



Cloud Fundamentals is one of four Intel® Cloud.U training and certification programs.

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2. Register for the curriculum of your choice
3. Complete the courses and labs required for certification
4. Take the certification exam

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