

COURSE AGENDA

Cloud Technologies

A professional training programme focused on cloud computing, digital infrastructure, scalability, security and emerging cloud-enabled innovation

15 Hours Duration	eLearning Primary format	English Language
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Primary format	eLearning course delivered through the digital learning platform
Available on request	Live trainer-led online delivery or in-house classroom training
Contact us	Request a tailored quote for your organisation

About Us

This course is delivered by a team with strong expertise in cybersecurity, digital resilience, emerging technologies and secure digital transformation. Our work is grounded in internationally recognised standards, European regulatory requirements and practical experience supporting organisations operating in complex, regulated and technology-driven environments.

INFOSEC CENTER holds ISO/IEC 27001 certification for information security management and, reflecting a structured and responsible approach to cybersecurity, data protection, governance and AI-enabled technologies. The organisation is also recognised as an **EASA-approved** training provider for specialised aviation cybersecurity training, aligned with European aviation safety and information security requirements.

Our innovation capacity has been recognised through the **Impact Stars distinction** at the **Deloitte Technology Fast 50**, awarded for the innovation delivered by our Machine Learning platform. This reflects our commitment to practical, high-impact technology solutions that combine advanced digital capabilities with real business and societal value.

We are actively connected to European digital innovation networks, including the **European DIGITAL SME Alliance** and the **BSC AI Factory Incubation Program**, contributing to secure, competitive and responsible digital transformation across Europe.

Our broader innovation platform, **FACTORY X.0**, supports the secure transformation of industrial and digital ecosystems by integrating cybersecurity, automation, artificial intelligence, industrial digitalisation and advanced technology adoption, with a focus on resilience, compliance and sustainable innovation.

We support organisations in understanding cyber risk, strengthening digital infrastructure, improving governance, preparing for regulatory compliance and building a stronger security culture across aviation, industry, education, public services and digital business.

Why This Course Matters

Cloud technologies are now a core component of modern digital transformation. They support the way organisations store data, run applications, scale services, collaborate across locations, manage infrastructure and respond to changing operational needs. For many organisations, cloud adoption is no longer optional. It is a strategic requirement for flexibility, resilience, efficiency and innovation.

Cloud computing enables organisations to access infrastructure, platforms and software services without relying exclusively on traditional on-premises systems. It can reduce operational complexity, improve scalability, support remote and hybrid work, accelerate deployment and create new opportunities for business continuity and digital growth.

At the same time, cloud adoption requires careful planning. Poorly designed cloud environments can create security weaknesses, uncontrolled costs, compliance gaps, performance issues and operational dependencies. Organisations need to understand not only what cloud technologies can offer, but also how they should be designed, secured, monitored and optimised.

This course addresses that need directly. It is designed for learners who want to understand the foundations of cloud computing, cloud architecture, cloud security, resource management, cost optimization and emerging trends such as cloud-native development, edge computing and cloud-based artificial intelligence.

Participants will leave this course equipped to:

- Understand the essential concepts, service models and deployment models of cloud computing
- Explain the main characteristics of cloud technologies and their relevance to modern organisations
- Evaluate cloud architecture principles, including scalability, availability, performance and security

- Understand the role of microservices, containers and cloud-native design in advanced cloud solutions
- Identify key cloud security requirements, policies and standards
- Manage and optimise cloud resources, including monitoring, scaling, automation and cost control
- Assess cloud innovation trends and their impact on organisational strategy and digital transformation

Course Overview

Course Title	Cloud Technologies
Total Duration	15 Hours
Primary Delivery Format	eLearning course delivered through the digital learning platform
Optional Delivery Formats	Available on request as live trainer-led online delivery or in-house classroom training
Target Audience	Professionals seeking to understand, evaluate, manage and support the adoption of cloud technologies in organisational and business contexts
Prerequisites	No prior cloud engineering experience required; basic digital literacy and general understanding of IT or business processes are recommended
Language	English

Planning & Delivery Options

The standard version of this programme is structured as an eLearning course, allowing participants to progress through the agenda in a flexible and accessible format. This option is suitable for organisations that need scalable delivery, consistent learning materials and clear assessment through the digital platform.

At the client's request, the same course agenda can also be delivered with a live trainer, either online or in an in-house classroom format. These options are recommended when the organisation wants direct interaction with the trainer, applied discussions based on internal workflows or a more guided learning experience.

For organisational enrolment, adapted delivery or group implementation, please request a tailored quote.

Learning Approach

The learning approach is built on four pillars:

01 Conceptual Clarity

Each module introduces cloud technologies in a clear and structured way before moving into applied architecture, security and optimisation topics. Learners build a solid understanding of cloud service models, deployment models, infrastructure principles and cloud terminology before evaluating practical implementation scenarios.

02 Applied Learning

Case studies, scenario-based exercises and tool walkthroughs anchor abstract concepts in realistic professional contexts, building skills that transfer directly to the workplace.

03 Security & Governance Integration

Cybersecurity, compliance, access control, data protection, cloud governance and operational resilience are embedded throughout the course. Cloud adoption is presented not only as a technical migration, but as a managed organisational transformation that requires oversight, accountability and risk-based decision-making.

04 Progressive Assessment

Each module includes a knowledge check through the eLearning platform. A final comprehensive assessment consolidates learning across all modules and supports the validation of knowledge gained throughout the programme.

Detailed Course Agenda

Module 01 Foundations of Cloud Technologies

Learning Objectives

- Develop a clear understanding of cloud computing and the role of cloud technologies in modern digital infrastructure.
- Understand the essential components of cloud computing, including infrastructure, platforms, applications, storage, networks and managed services.
- Explore the main cloud service models, including Infrastructure as a Service, Platform as a Service and Software as a Service.
- Understand the main cloud deployment models, including public cloud, private cloud and hybrid cloud, and evaluate their relevance for different organisational needs.
- Examine the five essential characteristics of cloud computing defined by NIST: on-demand self-service, broad network access, resource pooling, rapid elasticity and measured service.

- Understand the importance of security in cloud environments and why cloud adoption must be supported by appropriate controls, policies and responsibilities.
- Identify current and emerging cloud trends and understand their potential impact on business strategy, operational models and digital transformation.

Tools & Methodology

eLearning modules, optional live trainer-led sessions.

Assessment: Knowledge test via the eLearning platform.

Module 02 Cloud Architecture and Advanced Solution Design

Learning Objectives

- Understand the principles of designing advanced cloud architectures, including scalability, availability, resilience, performance and security.
- Learn how cloud architecture decisions influence operational efficiency, cost, flexibility and long-term maintainability.
- Understand the importance of containers and container-based deployment models in modern cloud environments.
- Evaluate the applicability of different cloud service models, including IaaS, PaaS and SaaS, in specific business scenarios relevant to small and medium-sized enterprises.
- Understand the principles of migrating existing infrastructure, applications and services to cloud environments.
- Analyse the risks and decision factors involved in cloud solution design, including integration with existing systems, data dependencies, security requirements and operational continuity.

Tools & Methodology

eLearning modules, optional live trainer-led sessions, case studies.

Assessment: Knowledge test via the eLearning platform.

Module 03 Cloud Security

Learning Objectives

- Understand the advanced principles of cloud security and their importance in protecting data, applications, infrastructure and users.
- Explore the shared responsibility model and understand how security responsibilities are distributed between cloud providers and cloud customers.
- Identify key security controls for cloud environments, including identity and access management, encryption, network segmentation, logging, monitoring and incident response.
- Understand the role of cloud security policies, standards and procedures in supporting secure adoption for small and medium-sized enterprises.
- Understand how data protection, privacy and compliance requirements influence cloud architecture and service selection.
- Analyse security risks associated with cloud adoption, including misconfiguration, excessive permissions, insecure APIs, data exposure and weak governance.

Tools & Methodology

eLearning modules, optional live trainer-led sessions, case studies.

Assessment: Knowledge test via the eLearning platform.

Module 04 Cloud Resource Management and Optimisation

Learning Objectives

- Understand strategies for effective cloud resource management, including monitoring, scaling, automation and lifecycle control.
- Explore the principles of cloud cost optimisation, including cost visibility, budget control, right-sizing, reserved capacity, consumption monitoring and management of hidden costs.

- Learn how cloud pricing models influence architecture decisions and operational planning.
- Understand how organisations can monitor cloud performance, availability and usage through appropriate tools and metrics.
- Explore techniques for optimising performance in cloud environments, including load balancing, autoscaling, caching, storage optimisation and workload distribution.
- Understand how automation can support more efficient cloud operations, including provisioning, configuration management, scaling and routine administrative tasks.
- Learn how to design a cloud resource management and optimisation strategy for a small or medium-sized enterprise.
- Examine the relationship between cloud governance, cost control, operational efficiency and accountability.

Tools & Methodology

eLearning modules, optional live trainer-led sessions, case studies.

Assessment: Knowledge test via the eLearning platform.

Module 05 Cloud Innovation and Emerging Trends

Learning Objectives

- Explore recent innovations in cloud technologies and understand how they influence digital transformation strategies.
- Understand the relationship between cloud technologies, artificial intelligence and machine learning, including how cloud platforms support data processing, model training and AI service deployment.
- Examine the role of edge computing and understand how it complements cloud infrastructure by processing data closer to users, devices or operational environments.
- Understand cloud-native technologies and their relevance for building scalable, resilient and flexible digital services.

- Analyse the impact of emerging trends on the cloud strategies of small and medium-sized enterprises, including implications for cost, security, performance and operational decision-making.
- Learn how to evaluate whether new cloud technologies are appropriate for a specific organisational context.
- Understand how to build a strategic adoption plan for cloud innovation that connects technology trends to measurable business value.

Tools & Methodology

eLearning modules, optional live trainer-led sessions, case studies.

Assessment: Knowledge test via the eLearning platform.

Module 06 Course Closing & Consolidation

Learning Objectives

- Consolidate understanding across all previous modules through a structured review of cloud concepts, service models, deployment models, architecture, security, resource management and emerging trends.
- Revisit the most important technical themes, including scalability, availability, cloud security, cost optimisation, migration and innovation planning.
- Prepare for the final assessment by reviewing key definitions, design principles, implementation considerations and decision-making criteria related to cloud adoption.
- Reflect on how cloud technologies can be applied responsibly and effectively within the learner's own organisational or professional context.
- Receive personalised trainer feedback on learning progress and areas for further professional development when the course is delivered with trainer support.

Tools & Methodology

Final online assessment, optional trainer review session, individual feedback where applicable.

Assessment & Certification

Assessment in this course is continuous, formative and cumulative. Rather than relying on a single high-stakes examination, the programme uses a layered approach that supports learning throughout and ensures that the final certification reflects a genuine command of the material.

Assessment Type	Description
Module Knowledge Checks	Each module is followed by a knowledge test delivered through the eLearning platform. These tests reinforce learning at the point of completion and allow learners to identify any gaps before progressing.
Final Assessment	A comprehensive online test covering all modules is completed at the end of the course. This assessment evaluates the learner's overall understanding and ability to apply key concepts across the programme.
Trainer Feedback	When trainer-led delivery is requested, live session interactions and final assessment performance can be reviewed by the course trainer, who provides structured feedback to support ongoing professional development.
Certificate of Completion	Participants who successfully complete the course and final assessment may receive a certificate of completion issued by INFOSEC CENTER, confirming participation and successful completion of the training programme.

Closing Note

Cloud technologies are more than a technical hosting option. They are a foundation for modern digital operations, enabling organisations to scale services, improve resilience, support innovation and adapt more quickly to changing business needs. When used effectively, cloud environments can help organisations become more flexible, efficient and competitive.

The organisations that benefit most from cloud technologies are those that approach cloud adoption with clear objectives, sound architecture, strong security controls and disciplined resource management. Cloud transformation should not be treated only as a migration exercise. It should be planned as a strategic, governed and continuously optimised operating model.

This course has been designed with that understanding at its core. It aims to prepare learners not only to understand cloud terminology and service models, but also to evaluate architecture choices, recognise security responsibilities, manage resources effectively and assess emerging cloud trends with professional judgement.

We hope this programme supports your development as a confident, capable and responsible professional in the field of cloud technologies. The perspective you build here will help you contribute meaningfully to digital transformation while maintaining the security awareness, cost discipline and operational judgement that modern organisations require.

We wish you a productive and insightful learning experience.

Primary format: eLearning course

Live trainer-led and in-house delivery available on request



Request a quote: contact@edkore.com