



*Ministry of cooperatives
Labour and Social Welfare*



*Iran Technical and Vocational
Training Organization*

Deputy of training
Plan and curriculums office

Competency Training standard

Title

**210-451: Cisco Cloud Fundamentals
(CLDFND)**

*Iran Technical and Vocational
Training Organization*
Occupational group
INFORMATION TECHNOLOGY (IT)

International code

2523-53-153-1

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Revision Process:

- Scientific content
- According to market
- Equipment
- Tools

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Definitions:

Job standard:

The characteristics ' required competencies and abilities for Efficient Performance in work environment is called "the Job standard", and sometimes “The Occupational standard”

Training standard:

The Training Map for achieving the Job’s subset Competencies.

Job title:

Is a set of Tasks and Abilities which is expected from an employed person in the defined level

Job description:

A statement covering the most important elements of a job, namely the position or title of the job, the duties, job’s relation with other jobs in a occupational field, the responsibilities, workplace conditions and required performance standards.

Course duration:

The minimum of time which is required to achieve the training objects.

Admission requirements:

The minimum of competencies and abilities which are obligatory for a potential admission.

Evaluation:

The process of collecting evidence and judgment about whether a competency is achieved or not.

Include: written examination, practical examination

Required Qualifications for Trainers:

The minimum of Trainer’s technical and vocational abilities which the trainer is required to have.

Competency:

The ability of efficient performing a duty in a variety of workplaces conditions

Knowledge:

The minimum set of facts and mental capacities which is necessary for achieving a competency. This can include science, (Mathematics, physics, chemistry or biology), technology or technical.

Skill:

The minimum coordination between mind and body for achieving an ability or competency. It normally applied to practical skills.

Attitude:

A set of emotional behaviors required for achieving a competency and can have non-technical skills and occupational ethics.

Safety:

The cases which doing or not doing something can cause harm or accident

Environmental Consideration:

A set of consideration about the act which should be done to minimize the environmental damage or pollution.

Competency Title:

Cisco Cloud Fundamentals (CLDFND)

Competency Description:

The Understanding Cisco Cloud Fundamentals course is designed to provide students with the necessary knowledge, skills and abilities (KSA) to perform foundational tasks related to Cloud computing. It teaches the characteristics and deployment models of a Cloud network. Upon course completion, students will be able to:

- Describe common cloud characteristics
- Describe and Identify the cloud service models
- Describe and Compare cloud deployment models
- Identify cloud deployment decision factors
- Identify and Illustrate key features of UCS
- Define server virtualization

Admission Requirements:

minimum degree of education: Post first year of high school

minimum physical and mental ability:-

Prerequisite skills: Comptia Network+ Certification OR Cisco CCENT

Course duration:

Course duration: 48 hours

-Theoretical :18 Hours

-Practical :30 Hours

-Apprenticeship:... Hours

-Project:... Hours

Evaluation : (%)

Exam Time	90 minutes
Number of questions	55-65
Exam Number	210-451
Associate Certification	CCNA Cloud

IRANTVTO Evaluation : (%)

Written Examination:25%

Practical Examination:65%

Ethics:10%

Required Qualifications for Trainers:

Computer or IT or ART related Bachelor with 2 years' experience

Competency Training Standard

Competencies

	Title
1	Cloud Characteristics and Models
2	Cloud Deployment
3	Basic Knowledge of Cloud Compute
4	Basic Knowledge of Cloud Networking
5	Basic Knowledge of Cloud Storage



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Training standard

Contents analysis form

Title:	time			
	theoretical	practical	total	
	Determined by the instructor			
Cloud Characteristics and Models				
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill:	Determined by the instructor			From Cisco
Describe common cloud characteristics				
- On-demand self service				
- Elasticity				
- Resource pooling				
- Metered service				
Ubiquitous network access (smartphone, tablet, mobility)				
- Multi-tenancy				
- Describe Cloud Service Models				
-Infrastructure as a Service (IaaS)				
- Software as a Service (SaaS)				
- Platform as a Service (PaaS)				
Attitude:				
Speed and accuracy in doing the right thing				
Health & Safety:				
Compliance with safety protection in the workplace				
Environmental Consideration:				
Compliance with environmental protection				

Title: Cloud Deployment	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: Describe cloud deployment models - Public - Private - Community - Hybrid Describe the Components of the Cisco Intercloud Solution - Describe the benefits of Cisco Intercloud - Describe Cisco Intercloud Fabric Services	Determined by the instructor			From Cisco
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard
Contents analysis form

Title:	time			
	theoretical	practical	total	
Basic Knowledge of Cloud Compute	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: Identify key features of Cisco UCS - Cisco UCS Manager - Cisco UCS Central - B-Series - C-Series - Server identity (profiles, templates, pools) Describe Server Virtualization - Basic knowledge of different OS and hypervisors	Determined by the instructor			From Cisco
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard

Contents analysis form

Title: Basic Knowledge of Cloud Networking	time			
	theoretical	practical	total	
	Determined by the instructor			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill: Describe network architectures for the data center - Cisco Unified Fabric - Describe the Cisco Nexus product family - Describe device virtualization - SDN - Separation of control and data - Programmability - Basic understanding Open Daylight - ACI - Describe how ACI solves the problem not addressed by SDN - Describe benefits of leaf/spine architecture - Describe the role of APIC Controller Describe Infrastructure Virtualization - Difference between vSwitch and DVS - Cisco Nexus 1000V components - VSM - VEM - VSM appliance - Difference between VLAN and VXLAN - Virtual networking services - Define Virtual Application Containers - Three-tier application container - Custom container	Determined by the instructor			From Cisco
Attitude: Speed and accuracy in doing the right thing				
Health & Safety: Compliance with safety protection in the workplace				
Environmental Consideration: Compliance with environmental protection				

Training standard

Contents analysis form

Title:	time			
	theoretical	practical	total	
	Basic Knowledge of Cloud Storage			
Knowledge ,skill ,attitude ,safety, Environmental Consideration				Equipments ,tools, materials ,books
Knowledge and Skill:	Determined by the instructor			From Cisco
Describe storage provisioning concepts <ul style="list-style-type: none"> - Thick - Thin - RAID - Disk pools 				
Describe the difference between all the storage access technologies <ul style="list-style-type: none"> - Difference between SAN and NAS; block and file - Block technologies - File technologies 				
Describe basic SAN storage concepts <ul style="list-style-type: none"> - Initiator, target, zoning - VSAN - LUN 				
Describe basic NAS storage concepts <ul style="list-style-type: none"> - Shares / mount points - Permissions 				
Describe the various Cisco storage network devices <ul style="list-style-type: none"> - Cisco MDS family - Cisco Nexus family - UCS Invicta (Whiptail) 				
Describe various integrated infrastructures <ul style="list-style-type: none"> - FlexPod (NetApp) - VBlock (VCE) - VSPEX (EMC) - OpenBlock (Red Hat) 				
Attitude:				
Speed and accuracy in doing the right thing				
Health & Safety:				
Compliance with safety protection in the workplace				
Environmental Consideration:				
Compliance with environmental protection				