

# دبلوم كمبيوتيش لهندسة و إدارة الشبكات Computeach Diploma in Network Engineering

# طلاب الثانوبة العامة الذين يربدون

الفئات المستهدفة

الانخراط في سوق العمل مباشرة.

طلاب الكليات والجامعات الذين يريدون تطوير مهاراتهم العملية في

مجال الشبكات.

- الموظفين الذين يربدون احتراف إدارة
- أصحاب المؤسسات الذين يربدون بناء شبكة الحاسوب داخل مؤسستهم الخاصة وإدارتها

### أهداف الدبلوم

- تعلم مهارات الحاسوب الأساسية و برامج Microsoft Office و التعامل معها بإتقان.
- تعلم اللغة الانجليزية وكذلك المهارات الأخرى الضروربة لسوق العمل
- التعرف على كافة أجزاء الحاسوب و طريقة تركيها وكيفية التعامل معها و معرفة كيفية تنصب البرامج المختلفة معهم.
- التعرف على مختلف أنواع الشبكات، وأجهزتها وتفاصيلها.
- إنشاء شبكة كاملة متكاملة من حيث الأجهزة و التنصيب و الحماية.
- أن يحصل الطالب على شهادة مزاولة المهنة الخاصة من وزارة العمل والتي تمكنه من العمل كمدير للشبكات.

# وصف الدبلوم

- يقدم مركز تعليم الكمبيوتر الدولي Computeach برنامج الدبلوم الخاص في مجال هندسة وإدارة الشبكات و العديد من برامج الدبلومات الأخرى في مختلف مجالات تكنولوجيا المعلومات، من أجل رفع كفاءة الطلبة المنتسبين وتمكينهم من البرامج التي يتم طرحها ضمن هذا الدبلوم، وتأهيلهم للعمل باحترافية وللوصول إلى درجة عالية من التميز لتحقيق أهداف المؤسسات في هذا
- إن البرامج التدرببية المتخصصة التي يغطها برنامج الدبلوم الخاص في مجال هندسة و إدارة الشبكات تتسم بالحداثة و الجودة و ثراء المحتوى و التي تم إعدادها و الإشراف عليها من قبل ذوي الخبرة و الاختصاص في
- يركز دبلوم كمبيوتيش لهندسة الشبكات على تجهيز الطالب من خلال تطبيق المواد النظرية في الواقع العملي، بحيث يعمل الطالب كمحترف في مجال الأعمال. كما و تؤهل البرامج المطروحة في هذا الدبلوم الطلبة للحصول على الشهادات الدولية المعتمدة في هذا المجال إذا رغب الطالب في التقدم إليها.



عدد الساعات	المحتويات	مدة الدبلوم
45	Computer Fundamentals- ICDL.	
25	English Language	مدة برنامج الدبلوم: سبعة أشهر
10	Soft Skills  CV Writing Presentation Skills Communication Skills	ثلاث ساعات يومياً من الأحد الى الخميس عدد الساعات الاجمالي: 420 ساعة تدريبية
100	COMPTIA A+	
120	CCNA	
120	MCSE	

متطلبات التسجيل	مزايا الدبلوم
صورة عن بطاقة الأحوال المدنية للأردنين	الحصول على شهادة الدبلوم في هندسة الشبكات من الجامعة و مصدقة من التعليم العالي
صورة عن جواز السفر لغير الأردنيين	MALICI
صور شخصية عدد- 2	
III.	



### Computeach Diploma in Networking/Switching - Routing

#### **Course Description:**

This course is talking about the world of networking. It focuses on configuring, managing, and troubleshooting elements of the basic network infrastructure, This course also covers maintenance, management, and security of a network, You will use the Packet Tracer to learn terminology, procedures and simulation combines hardware and software tasks to give you the most realistic training experience.

#### **Course Objectives:**

After course completion candidates should be able to:

- Identify basic networking concepts, including how a network works.
  - Identify how the data flow in a network from the cable throughout the computer.
  - Identify the network layers and the purpose of each layer on OSI model and TCP/IP.
  - Knows the network devices and each device task, and to which layer belongs, which protocol uses.
  - Identify every device which kind of addresses use.
  - Know the problems network world has been faced, and the solution.
  - Know how to deal with data layer addresses.
  - Know how to deal with Network layer addresses (IPV4/ IPV6).
  - Know how to connect a network using Packet Tracer simulator and physical network using switches, routers and every network component.
  - Knows the protocols and the purpose from it and how the network use it in managing the data flow between layers.
  - Identify the VLAN, how to connect it, how to use it and why?
  - Learn the troubleshooting of the network.
  - Knows the security concept in the network.

#### **Course Topics:**

#### **Topic 1: Networking basics**

- Definition of Network.
- Network cables and connectors.
- Overview about the devices required to establish a network.
- TCP/IP model and OSI model in layering.

#### Topic 2: Describe how a network works

- Describe the purpose and functions of various network devices.
- Select the components required to meet a network specification.



- Use the OSI and TCP/IP models and their associated protocols to explain how data flows in a network
- Describe the purpose and basic operation of the protocols in the OSI and TCP/IP models.
- Determine the path between two hosts across a network.
- Identify and correct common network problems at layers 1, 2, 3 and 7 using a layered model approach

## Topic 3: Configure, Verify and troubleshoot a switch

- Explain basic switching concepts.
- Perform and verify initial switch configuration tasks including remote access management.
- Verify network status and switch operation using basic utilities (including: ping, traceroute, telnet, SSH, ARP, IPConfig), SHOW & DEBUG commands.
- Identify, prescribe, and resolve common switched network media issues, configuration issues, auto negotiation, and switch hardware failures.
- Select the appropriate media, cables, ports, and connectors to connect switches to other network devices and hosts.

# Topic 4: Implement an IP addressing scheme and IP services to meet network requirements:

- Describe the operation and benefits of using private and public IP addressing.
- Explain the operation and benefits of using DHCP and DNS protocols.
- Implement static and dynamic addressing services for hosts in a LAN environment.
- Calculate and apply an addressing scheme including VLSM IP addressing design to a network.
- Determine the appropriate classless addressing scheme using VLSM and summarization to satisfy addressing requirements in a LAN/WAN environment.
- Identify and correct common problems associated with IP addressing and host configurations
- Describe the technological requirements for running IPv6 in conjunction with IPv4.
- Describe IPv6 addresses.

#### Topic 5: Configure, verify and troubleshoot router operation

- Describe basic routing concepts.
- Describe the operation of routers (including: router boot up process, POST, router components).
- Select the appropriate media, cables, ports, and connectors to connect routers to other network devices and hosts.
- Configure, verify, and troubleshoot RIP protocol.
- Access and utilize the router to set basic parameters (including: CLI/SDM).
- Connect, configure, and verify operation status of a device interface.
- Verify device configuration and network connectivity using ping, traceroute, telnet, SSH or other utilities.



- Perform and verify routing configuration tasks for a static or default route given specific routing requirements.
- Manage IOS configuration files. (including: save, edit, upgrade, restore).
- Compare and contrast methods of routing and routing protocols.
- Configure, verify, and troubleshoot OSPF.
- · Configure, verify, and troubleshoot EIGRP.
- Troubleshoot routing issues.
- Verify router hardware and software operation using SHOW & DEBUG commands.





# ❖ Computeach Diploma in Networking /COMPTIA A+

#### **Course Description:**

This course talking about the fundamental concepts of computer hardware and software, the component of computer and peripherals, how to maintenance, install and configure. Also talk about the main concept of personal computer security.

#### **Course Objectives:**

After course completion candidates should be able to:

- Identify the components of standard desktop personal computers.
- Identify fundamental components and functions of personal computer operating system.
- Install and configure computer component.
- Maintain and troubleshoot peripheral component.
- Troubleshoot system components.
- Install and configure operating system.
- Maintain and troubleshoot installations of Microsoft Windows.
- Identify network technology.
- Support printers and scanners.
- Support personal computer security.

#### **Course Topics:**

#### **Topic 1: personal computer component**

- Personal Computer Component.
- System Unit Components.
- Storage Devices.

#### **Topic 2: operating system fundamental**

- Personal Computer Operating System.
- Windows File System Management .
- Windows System Management Tools.

#### **Topic 3: Installing and Configuring Peripherals Component**

- install and Configure Display Devices
- Install and Configure Input Devices
- Install and Configure Adapter Cards

#### **Topic 4: : Maintaining and Troubleshooting Peripheral Components**

- Troubleshoot Display Devices.
- Maintain and Troubleshoot Input Devices.
- Troubleshoot Adapter Cards.

#### **Topic 5: : Installing and Configuring system Component**





- Install and Configure Storage Devices.
- Install and Configure power supplies.
- Install and Configure memory.
- Install and Configure CPUs.

#### Topic 6: : Installing and Configuring system Component

- Troubleshoot Storage Devices.
- Troubleshoot power supplies.
- Troubleshoot memory.
- Troubleshoot CPUs.

# **Topic7: Installing and Configuring Operating Systems**

- Install Microsoft Windows.
- Upgrade Windows.
- · Add Devices to Windows.

#### **Topic 8: Maintaining and Troubleshooting Microsoft Windows.**

- Maintain Microsoft Windows.
- Troubleshoot Microsoft Windows.
- Recover Microsoft Windows.

#### **Topic9: : Network Technologies**

- Network Concepts.
- Network Communication.
- Network Connectivity.
- Internet Technologies.

#### **Topic 10: Supporting Laptops and Portable Computing Devices**

- Laptop and Portable Computing Device Components.
- Install and Configure Laptops and Portable Computing Devices.
- Maintain and Troubleshoot Laptops and Portable Computing Devices.

#### **Topic 11: Supporting Printers and Scanners**

- Printer and Scanner Technologies.
- Printer and Scanner Component.
- Printer and Scanner processes.
- Install and Configure Printers and Scanners.
- Maintain and Troubleshoot Printers and Scanners.

#### **Topic 12: Personal Computer Security Concepts**

- Security Fundamental.
- Wireless Security.



#### **❖ Windows Server 2012**

#### **Course Description:**

This course primarily covers the initial implementation and configuration of core services including Active Directory Domain Services (AD DS), networking services.

#### **Course Objectives:**

- Install and Configure Windows Server 2012.
- Describe AD DS.
- Manage Active Directory objects.
- Automate Active Directory administration.
- Implement IPv4.
- Implement Dynamic Host Configuration Protocol (DHCP).
- Implement Domain Name System (DNS).
- Implement IPv6.
- Share files and printers.

#### **Course Topics:**

#### **Topic 1: Deploying and managing windows server 2012**

- Windows Server 2012 Overview.
- Overview of Windows Server 2012 Management.
- Installing Windows Server 2012.
- Post-Installation Configuration of Windows Server.

#### **Topic 2: Introduction to Active Directory domain services**

- Overview of AD DS.
- Overview of Domain Controllers.
- Installing a Domain Controller.

# **Topic 3: Managing active directory domain services objects Managing User Accounts.**

- Managing Groups.
- Managing Computer Accounts.
- Delegating Administration.

#### Topic 4: Automating active directory domain services administration

- Using Command-line Tools for Administration.
- Using Windows PowerShell for Administration.



### **Topic 5: Implementing IPv4**

- Understanding IPv4 Addressing.
- Subnetting and Supernetting.
- · Configuring and Troubleshooting IPv4.

## **Topic 6: Implementing DHCP**

- Installing a DHCP Server Role.
- Configuring DHCP Scopes.
- Managing a DHCP Database.
- Securing and Monitoring DHCP.

### **Topic 7: Implementing DNS**

- Name Resolution for Windows Client and Servers.
- · Installing and Managing a DNS Server.
- Managing DNS Zones.

# **Topic 8: Implement files and print services**

Securing Files and Folders.

Protecting File Shares with Shadow Copies.







### ❖ VMware

### **Course Description:**

This course talk about VMware installation, configuration, managing

### **Course Objectives:**

- · Learn the usage of VMware.
- Learn to install and configure it.
- Learn to install multiple operating system on the same device.
- Learn to troubleshoot the operating systems.

## **Course Topics:**

**Topic 1: Overview about the VMware usage.** 

Topic 2: installation and configuration.

Topic 3: install multiple operating systems on the same device.

