

# Introduction to Cloud Computing and AWS

Cloud technology is a leading development in the world of networks, the Internet and programming and it allows the use of virtual servers on the Internet instead of using physical servers as was the practice in the "old world". Many organizations and businesses today are advancing to cloud technology and parting with physical hardware. This course gives students a glimpse into the field of cloud with an emphasis on the main products and services of AWS (Amazon Web Services).

## You Must Know!

### Duration:

40 Hours

### Who should attend?

Inexperienced students interested in getting to know Amazon's site services.

### Main Topics:

- Network fundamentals
- Virtualization
- Cloud computing
- Security at the cloud
- Benefits of the cloud
- AWS – introduction and core services

## Course modules

### Module 1– Network fundamentals (10 hours)

In this module we will learn about the basic concepts in the world of networks and the Internet. We will learn how the network works, we will understand how it can be protected, among other things, through identification processes, rules and more.

- OSI model
- Protocols (Ethernet, IP, TCP and UDP)
- Networks model and topology (LAN, WAN)
- Network elements (Switch, Router, Server)
- FW - Allow and deny access
- Protocols: Ethernet, IP, TCP, UDP, HTTP
- NAT - what is it and how it works

### Module 2 – Introduction to Virtualization (4 hours)

Virtualization helps us to create software-based or virtual versions of a computer resource. These computer resources can include computing devices, storage, networks, servers, or even applications. It allows organizations to partition a single physical computer or server into several virtual machines (VM). In this module we will study the technology of virtualization and its advantages in the world of communications and networks.

- Brief History of Virtualization
- Hypervisor software
- Types of Virtualizations
- Network Virtualization
- Service / Application Infrastructure Virtualization
- Benefits of Virtualization

## Module 3 – cloud computing (4 hours)

Cloud computing is a general term for anything that involves delivering hosted services over the internet. In this module we will learn how cloud technology works and its great benefits.

- Components of Cloud Computing
- Types of cloud computing services (IaaS, PaaS, SaaS)
- Public cloud, private cloud, hybrid cloud
- Uses of cloud computing
- Benefits of Cloud Computing
- Advantages and disadvantages of cloud computing

## Module 4 - fundamentals of the AWS Cloud (10 hours)

AWS is one of the most powerful and largest cloud platforms in the world. In this module we will learn about the working foundations of AWS and the terminology of its products and services.

- Overview of AWS
- Cloud Computing with AWS
- AWS Fundamentals Core Concepts
- AWS Global Infrastructure
- Job Roles in the Cloud

## Module 5 – AWS core services (12 hours)

In this module we will get to know in depth the main services of AWS while emphasizing the benefits of working in the cloud.



המרכז הבינלאומי  
ללימודי הייטק וחדשנות

\* 6377

מתקדמים  
לקריירה בהייטק



Microsoft Partner  
Gold Learning



### קמפוסים בפריסה ארצית:

באר שבע

רחוב האנגריה 77  
פארק ההייטק

ירושלים

רחוב יפו 34

רחובות

רחוב אופנהיימר 5  
פארק המדע

תל אביב

ראול ולנברג 36  
קריית עתידים