UDPM-CĐ-MĐ19-AVCN

TUYÊN BỐ BẢN QUYỀN:

INTRODUCTION

The aim of this lecture is to develop a basic knowledge of how English is used for communication in Information Technology. It is suitable for use in universities, colleges and technical schools with intermediate students who already know how to handle the common English sentence patterns but who want to improve and extend their language skills in the context of IT.

Little or no previous knowledge of Information Technology is assumed, but if students work through the lecture carefully they will certainly learn a great deal about it since the material does embrace all the basic concepts of Information Technology.

There are 7 units covering a wide range of current IT topics using a variety of texts and visual material taken from textlectures, newspapers, popular computing magazines, Internet newsgroups, Webpages, manuals, and advertisements. The aim is to help students to acquire and develop the skills they will need in order to learn the subject of Information Technology. Emphasis is placed on developing reading skills; important lexical items are isolated for special attention and significant points of grammar are thoroughly treated and revised. The lecture also includes a comprehensive glossary of current IT terminology with Vietnamese translation, the answer key as well as many teaching notes.

It is user-friendly to both teachers and students and its clear layout, using both photos and graphics, will make it a very popular choice for those wishing to acquire what are now regarded by many to be mandatory skills for employees in almost every part of the workforce.

Having many years of experience of teaching Information technology in English and teaching English for Computing, the authors have devoted much time and effort to compile this lecture of English for Information Technology appropriate to the Vietnamese environment. Nevertheless, the lecture cannot escape from shortcomings that the authors would like to insist the tolerance from the users of the lecture and to thank them for their comments and remarks that will be valuable for the next publication.

CONTENTS

MÔ ĐUN

Anh văn chuyên ngành

Mã mô đun: MĐ19

Thời gian của môn học: 60 giờ; (Lý thuyết: 30 giờ; Thực hành, thí nghiệm, thảo luận, bài tập: 27 giờ; kiểm tra 3 giờ)

I. VỊ TRÍ, TÍNH CHẤT MÔ ĐUN:

- Vị trí: Mô đun được bố trí sau khi học xong các môn học chung, trước các môn học, mô đun đào tạo chuyên môn nghề.
- Tính chất: Là mô đun cơ sở chuyên ngành tự chọn.

II. MỤC TIÊU MÔ ĐUN:

- Kiến thức:
  + Nói và viết về ứng dụng máy tính trong cuộc sống hàng ngày.
  + Trình bày được cấu trúc của máy tính và các chức năng của nó để có thể mua máy tính tại của hàng kinh doanh máy tính.
  + Sử dụng các từ viết tắt khi nói về máy tính.
  + Xây dựng các từ mới bằng cách sử dụng tiếp đầu ngữ, đuôi từ và ghép từ.
- Kỹ năng:
  + Phát triển những kỹ năng như: đọc hiểu, dịch các tài liệu tiếng Anh chuyên ngành Công nghệ thông tin.
  + Đọc hiểu các thông báo của hệ thống và các phần mềm ứng dụng khi khai thác và cài đặt.
  + Đọc hiểu các tài liệu đọc thêm bằng tiếng Anh và tóm tắt nội dung chính của tài liệu.
  + Nắm được vốn từ vựng và ngữ pháp cơ bản của tiếng Anh chuyên ngành CNTT.
- Thái độ: Cẩn thận, tự giác,chính xác.
  + Bố trí làm việc khoa học đảm bảo an toàn cho người và phương tiện học tập.

III. NỘI DUNG MÔ ĐUN:

1. Nội dung tổng quát và phân phối thời gian:

Số TT	Tên chương, mục	Thời gian			
		Tổng số	Lý thuyết	Thực hành, thí nghiệm, thảo luận, bài tập	Kiểm tra (LT hoặcTH)
I	Computers today	8	4	4	

	Computers applications Configuration Inside the system Bits and bytes Buying a computer				
II	Input/output devices Type and click! Capture your favorite image Viewing the output Choosing a printer	8	4	4	
III	Storage devices Floppies Hard drives Optical breakthrough	8	4	3	1
IV	Basic software Operating systems The graphical user interface A walk through Speadsheets Databases Face of the Internet	12	6	6	
V	Creative software Graphics and design Desktop publishing Multimedia	8	4	3	1
VI	Programming	8	4	4	

VII	Program design Languages Jobs in computing Computers tomorrow Electronic communications Internet issues LANs and WANs New technologies	8	4	3	1
	Cộng	60	30	27	3

MODULE 1. COMPUTERS TODAY

Learning objectives

In this lesson, you will learn how to:

- Talk and write about computer applications in everyday life
- Recognize the basic components of a computer system and understand their functions
- Understand the structure of different CPUs (central processing units)
- Understand the units of memory (bits, bytes, KB, MB, GB)
- Build up new words by using prefixes and suffixes
- Buy a computer from a shop
- Use synonyms, acronyms, and abbreviations when talking about computers

Lesson 1. Computer applications

I. Match the pictures

A. Computers have many applications in a great variety of fields. Look at these photographs of different situations and match them with texts 1 to 4 below.

A

B

C

D

1) Airline pilots use computers to help them control the plane. For example, monitors display data about fuel consumption, and weather conditions. In airport control towers, computers are used to manage radar systems, and regulate air traffic.
2) Computers can help students perform mathematical operations and solve difficult questions. They can be used to teach courses such as computer-aided design, language learning, programming, mathematics, etc.
3) Computer is used with laser and barcode technology to scan the price of each item and present total at a supermarket.
4) Banks use computers to look after their customers' money. They also control the automatic cash dispensers which, by the use of a personal coded card, dispense money to clients.

A. Match these titles with the pictures

Using an automatic cash dispenser

In education, computers can make all the difference
Scanning the price of each item and present total at a supermarket
Controlling the plane

B. Match the places in column A with the computer uses in column B

A	B
Banks	Provide information and entertainment
Factories	Look after, patient records and medicines
Homes	Calculate the bill
Hospitals	Control machines
Shops	Control our money

Now use the above words and phrases to fill in the gaps in this paragraph about computer uses.

Computers are now part of our everyday life. In shops, they …… . In factories, they …….. In ……, they look after, patient records and medicines. When we have bank account, a computer …….. . In our homes computers……

C. Look at text one again and discuss these questions

- How are/were computers used in your school?
- What other areas of study would benefit from the introduction of computers?

Example:

In my school, computers are used to speed up the process of looking for references in the library.

II. Language work: The passive

Passives are very common in technical writing where we are more interested in facts, processes, and events than in people. We form the passive by using the appropriate tenses of the verb 'to be' followed by the past participle of the verb we are using.

Examples:

Active

1) We sell computers. (simple present)
2) Babbage invented 'The Analytical Engine'. (simple past)

Passive

1) Computers **are sold**. (simple present)
2) 'The Analytical Engine' **was invented** in 1830. (simple past)

Facts and processes

When we write or talk about facts or processes that occur regularly, we use the present passive.

Examples:

1) Data **is transferred** from the internal memory to the arithmetic-logical unit along channels known as buses.
2) The other users **are** automatically **denied** access to that record.
3) Distributed systems **are built** using networked computers.

A. **Read the text below, which describes the insurance company's procedure for dealing with PC-users' problems. Fill in the gaps using the correct form of the verb in brackets.**

All calls [1]……. (register) by the Help Desk staff. Each call [2]……. (evaluate) and then [3]……. (allocate) to the relevant support group. If a visit [4]……. (require), the user [5]……. (contact) by telephone, and an appointment [6]……. (arrange). Most calls [7]……. (deal with) within one working day. In the event of a major problem requiring the removal of a user's PC, a replacement can usually [8]……. (supply).

B. **Fill in the gaps in the following sentences using the appropriate form of the verb in brackets**

1) The part of the processor which controls data transfers between the various input and output devices ……. (call) the control unit.
2) An operating system ……. (store) on disk.
3) Instructions written in a high-level language ……. (transform) into machine code.
4) In the star configuration, all processing and control functions ……. (perform) by the central computer.
5) When a document arrives in the mail room, the envelope ……. (open) by a machine.

Events

When we write or talk about past events, we use the past passive. Let us look at some examples.

Examples:

1) COBOL **was** first **introduced** in 1959.
2) Microsoft **was founded** on the basis of the development of MS/DOS.
3) The organization **was created** to promote the use of computers in education.

C. Fill in the gaps in the following sentences using the appropriate form of the verb in brackets.

1) Microsoft ……. (found) by Bill Gates.
2) C language ……. (develop) in the 1970s.
3) In the 1980s, at least 100,000 LANs ……. (set up) in laboratories and offices around the world.
4) The first digital computer ……. (build) by the University of Pennsylvania in 1946.
5) IBM's decision not to continue manufacturing mainframes ……. (reverse) the year after it ……. (take).

III. Reading

A. Write a list of as many uses of the computer, or computer applications, as you can think of.

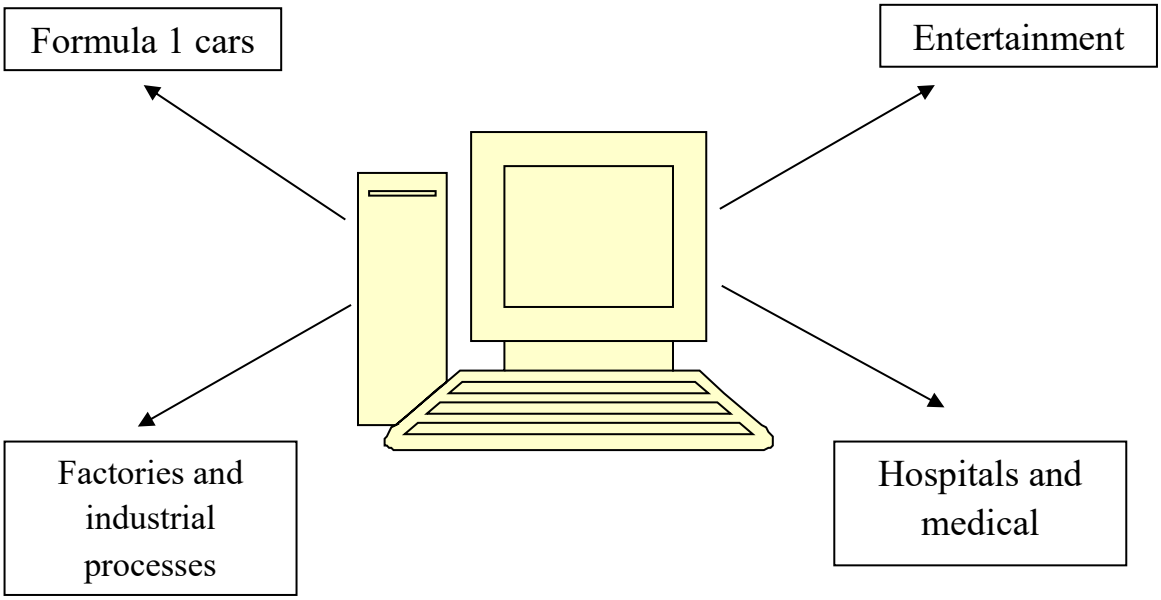
B. Now read the text below and underline any applications that are not in your list

What can computers do?

Computers and microchips have become part of our everyday lives: we visit shops and offices which have been designed with the help of computers, we read magazines which have been produced on computer, and we pay bills prepared by computers. What makes your computer such a miraculous device? Each time you turn it on, with appropriate hardware and software, it is capable of doing anything you ask. It is a calculating machine that speeds up financial calculations. It is an electronic filing cabinet which manages large collections of data such as customers' lists, accounts, or inventories. It is a magical typewriter that allows you to type and print any kind of document – letters, memos, or legal documents. It is a personal communicator that enables you to interact with other computers and with people around the world. If you like gadgets and electronic entertainment, you can even use your PC to relax with computer games.

IV. Other application

A. In small groups, choose one of the areas in the diagram below and discuss what computers can do in this area.



Useful words

Formula 1: *racing car, car body, design, mechanical parts, electronic components, engine speed*

Entertainment: *game, music, animated image, multimedia, encyclopedia*

Factories: *machinery, robot, production line, computer-aided manufacturing software*

Hospitals: *patients, medical personnel, database program, records, scanner, diagnose, disease, robot, surgery*

Useful constructions

Computers are used to ...

A PC can also be used for ...

Computers can help ... make ... control ... store ... keep ... provide ... manage ... give ... perform ... measure ... test ... provide access to ...

B. Now write a short paragraph summarizing your discussion. Then ask one person from your group to give a summary of the group's ideas to the rest of the class.

Examples

In business, computers are used for financial planning, accounting, and specific calculations.

In the office, computers are used to write letters and keep records of clients, suppliers, and employees.

Lesson 2. Computer essentials

I. Computer hardware

A. In pairs, discuss these questions

1) Have you got a computer at home, school or work? What kind is it?
2) How often do you use it? What do you use it for?
3) What are the main components and features of your computer system?

B. In pairs, label the elements of this computer system

II. What is a computer?

A. Read the text

What is a computer?

A computer is an electronic machine which can accept data in a certain form, process the data, and give the results of the processing in a specified format as information.

First, data is fed into the computer's memory. Then, when the program is run, the computer performs a set of instructions and processes the data. Finally, we can see the results (the output) on the screen or in printed form.

A computer system consists of two parts: hardware and software. Hardware is any electronic or mechanical part you can see or touch. Software is a set of instructions, called a program, which tells the computer what to do. There are three basic hardware sections: the central processing unit (CPU), main memory and peripherals. Perhaps the most influential components is the central processing unit. Its function is to execute program instructions and coordinate the activities of all the other units. In a way, it is the "brain" of the computer. The main memory (a collection of RAM chips) holds the instructions and data which are being processed by the CPU. Peripherals are the physical units attached to the computer. They include storage devices and input/output devices. Storage devices (hard drives, DVD drives or flash drives) provide a permanent storage of both data and programs. Disk drives are used to read and write data on disks. Input devices enable data to go into the computer's memory. The most common input devices are the mouse and the keyboard. Output devices enable us to extract the finished product from the system. For example, the computer shows the output on the monitor or prints the results onto paper by means of a printer.

On the rear panel of the computer there are several ports into which we can plug a wide range of peripherals – a modem, a digital camera, a scanner, etc. They allow

communication between the computer and the devices. Modem desktop PCs have USB ports and memory card readers on the front panel.

A USB port

A USB connector

B. Match these words from the text (1-9) which the correct meanings (a-i)

1. Software	**a.** The brain of the computer
2. Peripherals	**b.** Physical parts that make up a computer system
3. Main memory	**c.** Programs which can be used on a particular computer system
4. Hard drive (also known as hard disk)	**d.** The information which is presented to the computer
5. Hardware	**e.** Results produced by a computer
6. Input	**f.** Input devices attached to the CPU
7. Ports	**g.** Section that holds program and data while they are executed or processed
8. Output	**h.** Magnetic device used to store information
9. Central processing unit	**i.** Sockets into which an external device may be connected

III. Different type of computer

A. Label the pictures (a-e) with words from the box

Laptop	Desktop PC	PDA	Mainframe	Tablet PC

a…… b……

c……

d……..

e……

B. Decide whether these sentences are true of false. Correct the false ones.

1) A mainframe computer is less powerful than a PC
2) A mainframe is used by large organizations that need to process enormous amounts of data.
3) The most suitable computers for home are desktop PCs
4) A laptop is not portable
5) Laptops are not as powerful as desktop PCs
6) Using a stylus, you can write directly onto the screen of a tablet PC
7) A Personal Digital Assistant is small enough to fit into a palm of your hand.
8) A PDA does not allow you to surf the Web

IV. Language work

A. Look at the HELP box and then use suitable classifying expressions to complete these sentences

1. A computer…….hardware and software 2. Peripherals…….three types: input, output and storage devices	**HELP box** **Classifying** Classifying means putting things into groups or classes. We can classify types of computers, parts of a PC, etc.

3. A word processing program…….. software which lets the user create and edit text 4. ……of network architecture: peer-to-peer, where all computers have the same capabilities, and client-server (e.g. the Internet), where servers store and distribute data, and clients access this data.	Some typical expressions for classifying are • **…are classifying into X types/categories** • **…are classified by…** • **…can be divided into X types/categories** *Digital computers can be **divided into** five main **types**: mainframes, desktop PCs, laptops, tablet PCs and handheld PDAs* • **…include(s)…** • **…consist(s) of…** *The basic configuration of a mainframe **consists of** a central system which processes immense amounts of data very quickly* • There are X types/classes of… • X is a type of… *A tablet PC is a **type of** notebook computer*

V. Benefits of laptops and tablet PCs

Your school is considering buying tablet PCs to use in the classroom. Write an email to your teacher explaining the benefits for the students and the school.