



Institut de Formation à Distance

ONLINE ENGLISH COURSES ESP SRT/D2A/SID

LICENCE 2

Presentation of trainer

Presenter

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Course designer

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- **CHAPTER 6: Information Systems Management**



Description of the course

- The English course aims at preparing students to professional life through acquisition of knowledge and skills that allow them to communicate.
- For that purpose, the course is based on providing students with skills which help them use general English and ESP (**English for Specific Purposes**).



Prerequisites and objectives

- **Prerequisites**

Students should have completed L1 English course

- **Objectives**

This course aims at providing students with the necessary skills to express themselves in English, through conversations, opinions and business letters, ESP courses will enable students to understand and use the appropriate lexical items and expressions related to their fields of study.



ESP: Topics and Skills

Specific Objectives:

- by the end of this course students should be able to :
- know about information systems, Databases, data storage, data processing and data protection.
 - be more familiar with related lexical items used in the course.



ESP LESSON PLAN: CHAPTER 6: Information Systems Management (1)

Introduction

I.Types of information systems and functions

1. Transaction Processing Systems (TPS)
2. Knowledge work systems (KWS)
3. Office automation systems (OAS)
4. Decision-support systems (DSS)
5. Management information systems (MIS)
6. Executive support systems (ESS)



ESP LESSON PLAN: CHAPTER 6: Information Systems Management (2)

II.Database

1.What type of things are databases

1.1 Information

1.2. Data

1.3 Computer data

2. Types of databases

2.1 Centralized database

2.2 Cooperative database

2.3 Distributed database

2.4 Full-text database



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2. Types of databases/continued

2.5 Government database

2.6 Knowledge base

2.7 Mobile database

2.8 Non-native speech database

2.9 Online database

2.10 Operational database



ESP LESSON PLAN: CHAPTER 6: Information Systems Management(4)

III. Data storage and processing

IV. Data protection principles

V. IT security measures



Introduction:

Information System is a system that handles the flow and maintenance of information, which supports the business operation. The components of information systems are people, equipment, procedures and data.



I. Types of information systems and functions

1. Transaction Processing Systems (TPS) serve the people in the operational level of an organization. It collects and stores information about transactions, and controls some aspects of transactions. A sale of item in the store is an example of a transaction.

2. Knowledge work systems (KWS) is used by technical staff as model functions to convert design specifications into graphical designs. It uses computer-aided design/manufacture (CAD/CAM).



3. Office automation systems (OAS)

Office automation systems (OAS) serve those that belong to the knowledge level of an organization. The system helps individuals in the processing of personal and organizational data, perform calculations, and create documents. e.g. word processing, spreadsheets, file managers, personal calendars, presentation packages.



4. Decision-support systems (DSS)

Decision-support systems (DSS) help the strategic management staff (senior officers) in making decisions. The system uses information, models, or analysis tools in order for managers to make simulations and predictions. Example of DSS is the 5-year investment plan.



5. Management information systems (MIS)

Management information systems (MIS) serve the management level of the organization. The system condenses and converts the TPS data into information for purposes of monitoring performance and managing the organization. Transactions that were recorded in the TPS are analyzed and reported by an MIS. Example of an MIS output is the budget report.



6. Executive support systems (ESS)

Executive support systems (ESS) serve the strategic level of an organization. A system provides top-level executive of a readily accessible, interactive format to get the overview of the entire organizations performance.



II. Database

Formally, a "database" refers to a set of related data and the way it is organized. Access to this data is usually provided by a "database management system" (DBMS) consisting of an integrated set of computer software that allows users to interact with one or more databases and provides access to all of the data contained in the database (although restrictions may exist that limit access to particular data). The DBMS provides various functions that allow entry, storage and retrieval of large quantities of information and provides ways to manage how that information is organized.



1. What type of things are databases

Databases can be described as all of the following:

1.1 Information – sequence of symbols that can be interpreted as a message. Information can be recorded as signs, or transmitted as signals.

1.2. Data – values of qualitative or quantitative variables, belonging to a set of items. Data in computing (or data processing) are often represented by a combination of items organized in rows and multiple variables organized in columns. Data are typically the results of measurements and can be visualised using graphs or images.



1.3 Computer data

Computer data – information in a form suitable for use with a computer.
Data is often distinguished from programs. A program is a sequence of instructions that detail a task for the computer to perform.



2. Types of databases

2.1 Centralized database – database located and maintained in one location, unlike a distributed database.

2.2 Cooperative database – holds information on customers and their transactions.

2.3 Distributed database - Database in which storage devices are not all attached to a common CPU.



2.4 Full-text database

Database that contains the complete text of books, dissertations, journals, magazines, newspapers or other kinds of textual documents. Also called a "complete-text database".

2.5 Government database – collects personal information for various reasons (mass surveillance, Schengen Information System in the European Union, social security, statistics, etc.).



2.6 Knowledge base

Special kind of database for knowledge management. A knowledge base provides a means for information to be collected, organised, shared, searched and utilised.

2.7 Mobile database – can be connected to by a mobile computing device over a mobile network.

2.8 Non-native speech database – speech database of non-native

pronunciations of English. 

2.9 Online database

Database accessible from a network, including from the Internet.

2.10 Operational database – accessed by an Operational System to carry out regular operations of an organization.

III. Data storage and processing

III.1 Temporary storage of data: Computers have been used since the 1950s for the storage and processing of data. An important point to note is that the main memory of a computer provides only temporary storage; any data stored in main memory is lost when the power is turned off.



III.2 Permanent storage of data

For the permanent storage of data, one must turn to auxiliary storage, primarily magnetic and optical media such as tapes, disks, and CDs. Data is stored on such media but must be read into main memory for processing. A major goal of information-system designers has been to develop software to locate specific data on auxiliary storage and read it efficiently into main memory for processing.



4. Data protection principles

1. Personal information must be fairly and lawfully processed
2. Personal information must be processed for limited purposes
3. Personal information must be adequate, relevant and not excessive
4. Personal information must be accurate and up to date
5. Personal information must not be kept for longer than is necessary
6. Personal information must be processed in line with the data subjects' rights
7. Personal information
8. Personal information must not be transferred to other countries without adequate protection



5. IT security measures

Protecting sensitive data is the end goal of almost all IT security measures. These measures help to prevent identity theft and safeguard privacy.

1. Data security is fundamental. All new and existing business and data processes should include a data security review. This ensures MIT data is safe from loss and secured against unauthorized access.
2. Plan ahead. Develop a plan to review your data security status and policies. Create routine processes to access, handle, and store the data safely. Archive unneeded data.
3. Know your data. Know what data you have and what levels of protection are required to keep the data both confidential and safe from loss.



5. IT security measures/ continued

4. **Scale down**. Keep only the data you need for routine current business. Safely archive or destroy older data and remove it from all computers and other devices.

5. **Lock it up and back it up!** Physical security is the key to safe and confidential computing. All the passwords in the world won't get your laptop back if it's stolen. Back up data to a safe place so it can be recovered if equipment fails or is lost or stolen.



Course requirements

- Read carefully the courses steps
- Have a computer
- Read and understand the texts
- Do the assignments and attend tutoring sessions

