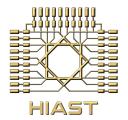
# Syrian Arab Republic

### Higher Institute for Applied Sciences and Technology



## **Course Specification Document**

Title	Computer Basics
Credits	2.5 ECTS
Aims	This course aims to provide the student with a basic and solid understanding of computer operation and operating systems, enabling them to use the computer in executing scientific tasks comfortably and efficiently.

### **Intended learning outcomes**

On successful completion of this course, the student will be able to:

- Identify the basic components of a computer and the mechanism of program execution.
- Understand the role of the operating system in managing computer resources among programs.
- Familiarize himself with the file system and the command language in the operating system.
- Understand numbering systems to comprehend how data is represented in a computer.

#### **Syllabus**

- Basic computer components: Central Processing Unit (CPU), Random Access Memory (RAM), Input and Output peripherals.
- Operating system: Program execution, resource management.
- **Storage media:** Types of permanent storage (magnetic, electronic, optical), popular types and their features (capacity, speed, price).
- **File systems:** Files/Folders, hierarchical structure of the file system, relative path name / complete path name.
- Command language in the operating system: DOS commands, Linux commands.
- **Numbering systems:** Decimal, binary, octal, hexadecimal, conversion between numbering systems.
- **Program execution mechanism:** Program structure, execution sequence (the role of RAM + CPU), the execution sequence of an application and the role of the operating system.
- **Data representation in computers:** Representation of integers (positive and negative), representation of floating-point numbers, ASCII character representation.
- Practical Office skills: Using some applications of MS Office: Word, Excel.