Arab Academy for Science, Technology & Maritime Transport
College of Engineering & Technology
Computer Engineering Department

University/Academy: Arab Academy for Science, Technology & Maritime Transport
Faculty/Institute: College of Engineering & Technology
Program: B.Sc. Computer Engineering

Form no. (12): **Course Specification**

1- Course Data

Course Code: **CC111**	Course Title: **Introduction to Computers**	Academic Year/Level: **1th** year / **1th** semester
Specialization: **Computer Engineering**	**Credit Hours**: 3 **Lecture**: 2 **Tutorial:** 2	**Prerequisite**: None

2- Course Aim

To ensure that students have a comprehensive, current knowledge of computer concepts and issues needed to succeed in our society.

3- Intended Learning Outcomes

a- Knowledge and Understanding	**Through knowledge and understanding, students will be able to:** a1. Concepts and theories of mathematics and sciences, appropriate to the computer engineering. • Examine why it's essential to learn about computers today. • Describe several uses for computers in business or personal life. • Identify some of the major components of a computer system and explain their relationships to one another. • List the five major categories of computers, giving at least one example of what the computers in each category might be used for. a2. Basics of information and communication technology (ICT). • Describe the purpose of a network and what the Internet is. • Discuss the social impact of computers and some issues that arise from their prominence in our society. • Explain the difference between storage systems and memory. • Name several general properties of storage systems. a5. Engineering principles in the fields of logic design, circuit analysis, machine and assembly languages, computer organization and architectures, memory hierarchy, advanced computer architectures, embedded systems, signal processing, operating systems, real-time systems and reliability analysis. • Differentiate between system software and application software • List the functions of the operating system • List the functions of utility programs • Identify the basic features of application software • Identify the stages of the program development life cycle • Use computer-related terminology.
b- Intellectual Skills	**Through intellectual skills, students will be able to:** b1. Select/Apply appropriate mathematical and computer-based methods for modeling and analyzing problems and select appropriate solutions for engineering problems based on analytical thinking. • Convert between numbering systems. • Solve any given problem by drawing a flowchart. • Adapt to the Visual Basic 6.0 IDE

	• Construct a program using Visual Basic 6.0 to solve any problem. Create visual basic program that maps to a flowchart of a problem.
c- Professional Skills	**Through professional and practical skills, students will be able to:** c1. Professionally merge the engineering knowledge, understanding, and feedback to improve design, products and/or services. • Prepare a slideshow using Microsoft PowerPoint. • Perform a presentation of a topic of your choice using Microsoft PowerPoint.
d- General Skills	**Through general and transferable skills, students will be able to:** d3. Demonstrate efficient IT capabilities. • Use general computer and software tools professionally • Analyze the local and global impact of computing on individuals, organizations and society • Use current advanced techniques, skills, and tools necessary for computing practices Use computer-related terminology

4- Course Content

Week No.1	Introduction to Computers, their use and applications
Week No.2	The System Unit, processing and memory
Week No.3	Storage and Input/Output Devices
Week No.4	Systems software and Applications software
Week No.5	Program Development Lifecycle
Week No.6	Flow charts
Week No.7	Flow Charts + 7th Week Exam.
Week No.8	Communications and networks
Week No.9	Visual Basic Introduction
Week No.10	Visual Basic In-depth
Week No.11	Visual Basic Advanced Applications
Week No.12	12th Week Exam + The Internet and The world wide web.
Week No.13	The Internet and The world wide web
Week No.14	Ethics, Computer Crime, Privacy and Social Issues
Week No.15	Revision for the Final Exam
Week No.16	Presentation of projects and Final Exam.

5- Teaching and Learning Methods

- Lectures
- Tutorials
- Reports & sheets
- Laboratories
- Seminars

6-Teaching and Learning Methods for Students with Special Needs

- Lectures
- Tutorials
- Reports & sheets
- Laboratories
- Seminars

The academic advisors of each student, as well as dedicated department TAs monitor the students' progress and solve any problem he/she may encounter.

7- Student Assessment

a-Procedures used	1-Written Examinations to assess The Intended Learning Outcomes. 2-Class Activities (Reports, Discussions, ------) to assess The Intellectual Skills.	
b- Schedule:	Assessment 1 Assessment 2 Assessment 3 Assessment 4	7th Week Written Exam 12th Week Written Exam Continuous Assessments 16th Week Final Written Exam
c- Weighing of Assessment	7th Week Examination 12th Week Examination Final-term Examination Oral Examination Practical Examination Semester Work Total	25 % 20 % 30 % 05 % 10 % 10 % 100%

8- List of References:

a- Course Notes	Available on the moodle, http://lms.aastmt.org
b- Required Books (Textbooks)	• Understanding Computers: Today and Tomorrow, by Deborah Morley 12th Edition
c- Recommended Books	
d- Periodicals, Web Sites, etc.	Companion website for the book, www.academic.cengage.com

Course Instructor:
Prof. Dr. Abd El Baith Mohamed

Program Manager:
Prof. Dr. Mohamad AbouEl-Nasr

Dean of College of Engineering and Technology of AASTMT
Name: Prof. Moustafa Hussein Aly
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