# Templates NO (12)

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| **University** | Helwan |
| **Faculty** | Computers and Information |
| **Department** | Software Engineering |

#### **Course Specifications**

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| **1- Course Data** | | |
| **Code:**  CS 111 | **Course Name:**  Introduction to Computer Science | **Level:**  One |
| **Specialization:**  Computer Science | **No of Learning Units:**  ( 2 ) **Theoretical** ( 2 ) **Practical** |  |

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| **2- Course Objective:** | 1. Know the key components of a computer system (hardware, software, data). 2. Be familiar with how computers work through an introduction to number systems. 3. Understand the basic concepts used in programming. 4. Know how to think in a problem. 5. Know how to write a small program to solve problems |
| **3- Intended Learning Outcomes (ILOs)** | |
| 1. **Knowledge and Understanding:** | A1. Know Computer Generations, Hardware and Software Concepts.  A2. Define the steps of problem solving.  A3. Learn C programming and binary numbering system |
| 1. **Intellectual Skills:** | B1. Know the difference between computer generations.  B2. Analyze the problems and write the solution steps in a systematic manner.  B3. Write C programs to solve the problems which are analyzed. |
| 1. **Professional and Practical Skills:** | C1. Learn how to solve any problem in a systematic manner.  C2. Learn C programming syntax. |
| 1. **General and Transferable Skills:** | D1. Practice Team work skills.  D2. Practice Leadership and managing.  D3. Specify and arrange Report writing steps.  D4. Manage time effectively. |
| **4- Course Content:** | 4-1 Introduction to computer history.  4-2 Problem Solving Concepts.  4-3 Programming Terminologies & C Introduced  4-4 C Programming Basic Syntax.  4-5 C Operators and Selection Controls.  4-6 C Repetition Controls.  4-7 C Functions  4-8 Number Systems ... & ... Binary Arithmetic |
| **5- Learning and Teaching Methods:** | 5-1 Lectures  5-2 Laboratory. |
| **6- Learning and Teaching Methods for students with limited skills:** | 6-1 Academic advising  6-2 Using data show  6-3 E-learning management tools |
| **7- Students Evaluation:** | |
| 1. **Used Methods** | * Practical exam * Semester work * Lab work * Final written Exam |
| 1. **Schedule** | * Assessment 1: Semester work (throughout the semester) * Assessment 2: Practical Exam (week 14) * Assessment 3: Final written exam (end of Semester according to faculty’s exams schedule) |
| 1. **Grades Distribution** | * Final written exam: 50 marks * Semester Work: 40 marks (20 for midterm exam+ 20 for Assignments & lab work) * Practical Exam: 10 marks * **Total**:100 marks |
| **List of Books and References:** | |
| 1. **Notes:** | * Course notes * Handouts |
| 1. **Mandatory Books:** | * Deiteland Deitel, “C How to Program”, Pearson Education Inc., 7th edition. |
| 1. **Suggested Books:** | * **Morley & Parker, “Understanding Computers Today & Tomorrow”, 13th edition.** * **Anita Goel, “Computer Fundamentals”, Pearson, 2010.** |
| 1. **Periodicals & Websites** |  |

**Course Professor: Dr** **Hala Abdelgelil**

**Chairman of the Scientific Department**