|  |  |  |  |
| --- | --- | --- | --- |
| **College** | Applied Sciences | | |
| **Department** | Applied Computing | | |
| **Program** |  | | |
| **Course Title** | Computer Programming | **Course Number:** | 15040201 |
| **Year** | 2023/2024 | **Semester:** | summer |
| **Prerequisite(s)** |  | | |
| **Instructor** | Shadiabuaysheh | | |
| **Instructor's e-mail** | [s.abuaysheh@ptuk.edu.ps](mailto:s.abuaysheh@ptuk.edu.ps) | | |
| **Office Hours** |  | | |
| **Class Time** |  | **Class Room:** |  |
| **Course description** | This course emphasis on problem solving and implementation using universal subset of the C++ programming language. It introduces the basics of computer programming concepts using the C++ programming language. i.e., low-charting and pseudo-code; introduce fundamentals of structured programming using C++. Students will have the opportunity to learn about C++ program structure, how to create and use functions, arrays, pointers. | | |
| **Course Intended Learning Outcomes (CILOs)** | The main objectives of this course are as follows:  1. Critical Thinking  2. To provide the understanding of structured programming principles  3. To use structured programming principles in problem solving by transferring the model-based problem into computer-based solution  4. To enhance communication and social skills through group project. | | |
| **Textbook(s)** | Deitel, H. M., &Deitel, P. J. . C how to program (7th ed.). United Sates: Prentice Hall. | | |
| **Other required material (References):** | * Deitel, H.M. &Deitel, P. J. C++ how to program (6th , 7e, or 8/e) * Internet resources. | | |
| **Other Resources used (e.g. e-learning, field visits, periodicals, software, etc. )** |  | | |

**Academic Quality Assurance Department**

**Course Syllabus Form**

|  |  |
| --- | --- |
| **Course Teaching Methods** | |
| **Teaching Method** | **CILOs** |
| Lectures | 2,3 |
| Practical | 1,2,3 |
| Assignments | 3,4 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Assessment Type** | **Details/Explanation of assessment in relation to CILOs** | **Weight** | **Date(s)** |
| **Mid Exam (10 pract.+30 theo.)** | 1,2,3 | 40% | As per college exam timetable |
| **Works** | 2,3 | 15% |
| **Final Exam(10 pract.+35 theo.)** | 2,3,4 | 45% |
| **Total** |  | 100% |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Course Intended Learning Outcomes (CILOs)** | | | | |
| **CILOs** | **Mapping to Program ILOs** | | | |
| **On successful completion of the course, students will be able to:** | **a** | **b** | **c** | **d** |
| 1. To provide the understanding of structured programming principles. | X |  |  |  |
| 1. To use structured programming principles in problem solving by transferring the model-based problem into computer-based solution. |  | X | X |  |
| 1. To enhance communication and social skills through group project. |  |  |  | X |
| 1. Critical Thinking |  |  | X |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Course Weekly Breakdown** | | | | |
| **Week** | **Topics Covered** | **CILOs** | **Lab Activities** | **Assessment** |
| 1 | Chapter 1: Introduction to computers | B | Introduction to C | Homework#1  And 1st exam |
| Chapter 2: Introduction to C programming  - C++ formatted I/O | B | I/O Format | Exercises And 1st exam |
| 2 | Chapter 3: Variable declarations, Data Types, Expressions | b , c | Data Types | Homework#2  ,Exercises And 1st exam |
| 3 | Chapter 4: Structured Program Development and Program Control | b , c | Structure and control | Exercises And 1st exam |
| 4 | Chapter 5+6: Structured Program Development and Program Control | b , c | Structure and Control | Exercises And 2nd exam |
| 5 | Chapter 7: Functions | c | Functions | Exercises And 2nd exam |
| 6 | Chapter 8: Arrays | C | Arrays | Exercises And final exam |
| 8 | **Final Exam** |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Prepared by:** |  | **Signature** |  |
| **Head of Department** |  | **Signature** |  |
| **Date** |  | | |