**BS (IT) 10 and 11 Batch**

**Total Number of Courses 42**

**Total Credit Hours: 135**

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| **Course code** | **Semester 1 (16 Cr. Hrs.)** | **Cr. Hrs.** | **Pre-req** | **Course code** | **Semester 2 (16 Cr. Hrs.)** | **Cr. Hrs.** | **Pre-req** |
| CC1011w | Introduction to Computing | 4 (3+1) |  | IT141 | Programming Fundamentals | 4 (3+1) |  |
| CC1311w | Discrete Structures | 3 |  | PH121 | Basic Electronics | 4(3+1) |  |
| MA100 | Calculus and Analytical Geometry | 3 |  | MA210 | Linear Algebra | 3 |  |
| EN110 | Functional English (English-I) | 3 |  | EN112 | English-II | 3 | EN110 |
| HM150 | Islamic Studies | 3 |  | SS171 | Pakistan Studies | 3 |  |
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|  | **Semester 3 (17 Cr. Hrs.)** |  |  |  | **Semester 4 (19 Cr. Hrs.)** |  |  |
| CC2111w | Object Oriented Programming | 4 | IT141 | CC2711w | Software Engineering | 3 |  |
| CC2211w | Digital Logic Design | 4(3+1) |  | IT2731w | Technology Management | 3 |  |
|  | Probability and Statistics | 3 |  | IT2751w | Multimedia Systems and Design | 3 (2+1) | CC1011w |
| EN220 | Technical English and Report Writing (English-III) | 3 | EN112 | CC2411w | Data Structures and Algorithms | 4(3+1) | **CC2111w** |
|  | Uni. Elective I | 3 |  | MG330 | Uni. Elective II (Organizational Behavior ) | 3 |  |
|  | --- |  |  | IT2031w | Information Systems | 3 |  |

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|  | **Semester 5 (18 Cr. Hrs.)** |  |  |  | **Semester 6 (18 Cr. Hrs.)** |  |  |
| IT3721w | OO Analysis & Design | 3 | CC1111w, | IT3421w | DB Administration & Management | 3 | CC2421w |
| CC3021w | Operating Systems | 4 | **CC2411w** | IT3631w | Systems and Network Administration | 3 | CC3021w |
| CC2421w | Database Systems | 4 (3+1) | CC2411w | IT2621w | Internet Architecture & Protocols | 3 | CC3611w |
| CC3611w | Computer Communication and Networks | 4 |  | IT3741w | IT Project Management | 3 | CC2711w, |
| IT3051w | System Integration and Architecture | 3 | **IT2031w** |  | IT Elective-I (IT Infrastructure) | 3 | IT2731w |
|  | --- |  |  |  | IT Elective-II | 3 |  |
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|  | **Semester 7 (15 Cr. Hrs.)** |  |  |  | **Semester 8 (15 Cr. Hrs.)** |  |  |
| CC4981w | Capstone Project Part I | 3 |  | CC4991w | Capstone Project Part II | 3 |  |
| IT4641w | Data and Network Security | 3 | **CC2421w, CC3611w** | IT4651w | Cloud Computing | 3 |  |
| CC3041w | Human Computer Interaction | 3 |  |  | IT Elective IV | 3 |  |
| IT3121w | Web Systems and Technologies | 3 | **IT2621w** |  | IT Elective V | 3 |  |
|  | IT Elective III | 3 |  |  | IT Elective VI | 3 |  |