

# Khwaja Fareed University of Engineering & Information Technology

**Program: Bachelor of Science in Information Technology**

**Title: BS Information Technology Fall-2023**

| Semester #: 1       |                                           |              |                     |
|---------------------|-------------------------------------------|--------------|---------------------|
| Course Code         | Course Title                              | Credit Hours | Pre Req Course Code |
| COSC-1201           | Programming Fundamentals-Lab              | 1            |                     |
| COSC-1105           | Introduction to ICT                       | 2            |                     |
| COSC-1205           | Introduction to ICT-Lab                   | 1            |                     |
| MATH-1106           | Quantitative Reasoning-I                  | 3            |                     |
| PHYS-1121           | Applied Physics                           | 3            |                     |
| COSC-1101           | Programming Fundamentals                  | 3            |                     |
| ISLS-1112/ETIC-1112 | Islamic Studies/ Ethics                   | 2            |                     |
| <b>Credit Hours</b> |                                           | <b>15</b>    |                     |
| Semester #: 2       |                                           |              |                     |
| Course Code         | Course Title                              | Credit Hours | Pre Req Course Code |
| MATH-1120           | Applied Mathematics                       | 3            |                     |
| MATH-1100           | Calculus                                  | 3            |                     |
| ELEN-2100           | Digital Logic Design                      | 2            |                     |
| ENGL-1118           | Functional English                        | 3            |                     |
| MATH-1107           | Quantitative Reasoning-II                 | 3            |                     |
| PAKS-1121           | Ideology and Constitution of Pakistan     | 2            |                     |
| ELEN-2200           | Digital Logic Design-Lab                  | 1            |                     |
| COSC-1202           | Object Oriented Programming-Lab           | 1            |                     |
| COSC-1102           | Object Oriented Programming               | 3            |                     |
| <b>Credit Hours</b> |                                           | <b>21</b>    |                     |
| Semester #: 3       |                                           |              |                     |
| Course Code         | Course Title                              | Credit Hours | Pre Req Course Code |
| SSCI-2126           | Introduction to Psychology                | 2            |                     |
| COSC-3201           | Computer Networks-Lab                     | 1            |                     |
| COSC-3101           | Computer Networks                         | 2            |                     |
| SSCI-2111           | Professional Ethics                       | 2            |                     |
| ISLS-1140           | Seerat of the Holy Prophet Muhammad (SAW) | 0            |                     |
| MATH-2103           | Linear Algebra                            | 3            |                     |
| MSCI-2113           | Introduction to Entrepreneurship          | 2            |                     |
| ENGL-2114           | Expository Writing                        | 3            |                     |

|                      |                                               |                     |                            |
|----------------------|-----------------------------------------------|---------------------|----------------------------|
| COSC-2201            | Data Structures & Algorithms-Lab              | 1                   |                            |
| COSC-2101            | Data Structures & Algorithms                  | 3                   |                            |
| <b>Credit Hours</b>  |                                               | <b>19</b>           |                            |
| <b>Semester #: 4</b> |                                               |                     |                            |
| <b>Course Code</b>   | <b>Course Title</b>                           | <b>Credit Hours</b> | <b>Pre Req Course Code</b> |
| QURN-1122            | Fahm-e-Quran(Translation,Tafseer and Tajveed) | 0                   |                            |
| STAT-2104            | Probability and Statistics                    | 3                   |                            |
| COSC-2212            | Artificial Intelligence-Lab                   | 1                   |                            |
| COSC-2112            | Artificial Intelligence                       | 2                   |                            |
| COSC-3114            | Computer Organization & Assembly Language     | 2                   |                            |
| COSC-3214            | Computer Organization & Assembly Language-Lab | 1                   |                            |
| SSCI-2131            | Civics and Community Engagement               | 2                   |                            |
| COSC-1104            | Software Engineering                          | 3                   |                            |
| COSC-2203            | Database Systems-Lab                          | 1                   |                            |
| COSC-2103            | Database Systems                              | 3                   |                            |
| <b>Credit Hours</b>  |                                               | <b>18</b>           |                            |
| <b>Semester #: 5</b> |                                               |                     |                            |
| <b>Course Code</b>   | <b>Course Title</b>                           | <b>Credit Hours</b> | <b>Pre Req Course Code</b> |
| COSC-3118            | Operating Systems                             | 2                   |                            |
| INFT-2212            | Information Technology Infrastructure-Lab     | 1                   |                            |
| INFT-3209            | System & Network Administration Lab           | 1                   |                            |
| INFT-3109            | System & Network Administration               | 2                   |                            |
| INFT-3210            | Database Administration & Management-Lab      | 1                   |                            |
| INFT-3110            | Database Administration & Management          | 2                   |                            |
| INFT-3130            | Web Technologies                              | 2                   |                            |
| INFT-2112            | Information Technology Infrastructure         | 2                   |                            |
| COSC-2111            | Information Security                          | 2                   |                            |
| COSC-2211            | Information Security-Lab                      | 1                   |                            |
| COSC-3218            | Operating Systems-Lab                         | 1                   |                            |
| INFT-3230            | Web Technologies-Lab                          | 1                   |                            |
| <b>Credit Hours</b>  |                                               | <b>18</b>           |                            |
| <b>Semester #: 6</b> |                                               |                     |                            |
| <b>Course Code</b>   | <b>Course Title</b>                           | <b>Credit Hours</b> | <b>Pre Req Course Code</b> |
| INFT-3131            | Software Requirement Engineering              | 2                   |                            |
| MSCI-2102            | Financial Accounting                          | 3                   |                            |

|                      |                                      |                     |                            |
|----------------------|--------------------------------------|---------------------|----------------------------|
| MATH-3122            | Multivariable Calculus               | 3                   |                            |
| ENG-1111             | Technical & Business Writing         | 3                   |                            |
| INFT-3231            | Software Requirement Engineering-Lab | 1                   |                            |
| INFT-3233            | Cyber Security-Lab                   | 1                   |                            |
| INFT-3133            | Cyber Security                       | 2                   |                            |
| INFT-3232            | Parallel & Distributed Computing Lab | 1                   |                            |
| INFT-3132            | Parallel & Distributed Computing     | 2                   |                            |
| <b>Credit Hours</b>  |                                      | <b>18</b>           |                            |
| <b>Semester #: 7</b> |                                      |                     |                            |
| <b>Course Code</b>   | <b>Course Title</b>                  | <b>Credit Hours</b> | <b>Pre Req Course Code</b> |
| INFT-4303            | Final Year Project-I                 | 2                   |                            |
| INFT-4220            | Network Security-Lab                 | 1                   |                            |
| INFT-4120            | Network Security                     | 2                   |                            |
| INFT-4221            | HCI & Computer Graphics-Lab          | 1                   |                            |
| INFT-4121            | HCI & Computer Graphics              | 2                   |                            |
| INFT-3235            | Web Engineering Lab                  | 1                   |                            |
| INFT-3135            | Web Engineering                      | 2                   |                            |
| INFT-3234            | Mobile Application Development-Lab   | 1                   |                            |
| INFT-3134            | Mobile Application Development I     | 2                   |                            |
| INFT-4127            | Analysis of Algorithms               | 3                   |                            |
| <b>Credit Hours</b>  |                                      | <b>17</b>           |                            |
| <b>Semester #: 8</b> |                                      |                     |                            |
| <b>Course Code</b>   | <b>Course Title</b>                  | <b>Credit Hours</b> | <b>Pre Req Course Code</b> |
| INFT-4304            | Final Year Project-II                | 4                   |                            |
| INFT-4123            | Virtual Systems and Services         | 2                   |                            |
| INFT-4223            | Virtual Systems and Services-Lab     | 1                   |                            |
| INFT-4124            | Software Project Management          | 2                   |                            |
| INFT-4224            | Software Project Management-Lab      | 1                   |                            |
| INFT-4401            | Internship                           | 3                   |                            |
| <b>Credit Hours</b>  |                                      | <b>13</b>           |                            |

**Total Credit Hours: 139**