**SCHEME OF STUDIES FOR UNDERGRADUATE DEGREE**

**B.E (TELECOMMUNICATION) of Batch 2021/Fall and onwards**

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| **SEMESTER-1** | **SEMESTER-2** |
| **Course Code** | **Course Title** | **Cr. Hr.** | **Course Code** | **Course Title** | **Cr. Hr.** |
| HUM-101 | Pakistan Studies  | 2+0 | HUM-102 | Islamic Studies / Ethics | 2+0 |
| HUM-103 | Functional English | 3+0 | HUM-104 | Communication Skills | 3+0 |
| BS-105 | Calculus and Analytical Geometry | 3+0 | BS-110 | Linear Algebra  | 3+0 |
| BS-107 | Applied Physics | 2+1 | CS-122 | Computer Programming | 2+1 |
| CS-117 | Information and Communication Technologies | 2+1 | CS-130 | Computer Aided Engineering Design | 0+1 |
| TE-151 | Electrical Circuit Analysis | 3+1 | TE-152 | Electronic Devices & Circuits | 3+1 |
| **Total credits** | **15+3=18** | **Total credits** | **13+3=16** |
| **SEMESTER-3** | **SEMESTER-4** |
| **Course Code** | **Course Title** | **Cr. Hr.** | **Course Code** | **Course Title** | **Cr. Hr.** |
| BS-201 | Differential Equations | 3+0 | BS-202 | Complex Variables & Transform | 3+0 |
| CS-203 | Object Oriented Programming  | 3+1 | TE-248 | Computer Communication Networks | 3+1 |
| MS-224 | Engineering Economics & Management | 3+0 | TE-252 | Microprocessors & Microcontroller Systems | 3+1 |
| TE-251 | Digital Logic Design | 3+1 | TE-260 | Electromagnetic Theory | 3+0 |
| TE-259 | Amplifiers & Oscillators | 3+1 | TE-262 | Communication Systems | 3+1 |
| **Total credits** | **15+3=18** | **Total credits** | **15+3=18** |
| **SEMESTER-5** | **SEMESTER-6** |
| **Course Code** | **Course Title** | **Cr. Hr.** | **Course Code** | **Course Title** | **Cr. Hr.** |
| HUM-301 | Technical Report Writing | 3+0 | MS-326 | Entrepreneurship | 3+0 |
| BS-333 | Probability and Statistics | 3+0 | TE-356 | Transmission & Switching Systems | 3+0 |
| TE-351 | Antennas and Wave Propagation | 3+1 | TE-364 | Wireless & Mobile Communication | 3+1 |
| TE-359 | Signal & Systems | 3+1 | TE-366 | Digital Signal Processing  | 3+1 |
| TE-363 | Digital Communications | 3+1 | TE-368 | Information and Network Security | 3+0 |
| **Total credits** | **15+3=18** | **Total credits** | **15+2=17** |
| **SEMESTER-7** | **SEMESTER-8** |
| **Course Code** | **Course Title** | **Cr. Hr.** | **Course Code** | **Course Title** | **Cr. Hr.** |
| TE-471 | Opto-Electronics | 2+1 | MS-418 | Professional Ethics | 2+0 |
| TE-(xxx) | Multi-Disciplinary Engineering Course (Elective – I) | 3+0 | TE-452 | Navigational Aids & Radar Systems | 3+0 |
| TE-(xxx) | Major Based Core Depth(Elective – I) | 3+0 | TE-464 | Fiber Optic Communication Systems  | 3+1 |
| TE-(xxx) | Major Based Core Depth(Elective – II) | 3+0 | TE-(xxx) | Multi-Disciplinary Engineering Course (Elective – II) | 3+0 |
| TE-491 | Final Year Project - I | 0+3 | TE-492 | Final Year Project - II | 0+3 |
| **Total credits** | **11+4=15** | **Total credits** | **11+4=15** |
| **Total Credit Hours** | **110 + 25 = 135** |