

## Bachelor of Science in Electronic Physics

### The Program Structure:

| Course Code   | BS: <b>First</b> Semester Courses       | Credit |
|---------------|---|--------|
| PHY 101       | Communication Skills                    | 2      |
| PHY 102       | Descriptive Statistics & Probability    | 3      |
| PHY 103       | Computer Fundamentals & Applications    | 3      |
| PHY 104       | Introduction to Earth Science           | 2      |
| PHY 105       | Linear Algebra and Geometry             | 5      |
| PHY 106       | Calculus                                | 5      |
| TOTAL CREDITS |   | 20     |
| Course Code   | BS: <b>Second</b> Semester Courses      | Credit |
| PHY 111       | Introduction to Physics                 | 2      |
| PHY 112       | Introduction to Classical Mechanics     | 3      |
| PHY 113       | Introduction to Wave Motor & Heat       | 3      |
| PHY 114       | Introduction to Electricity & Magnetism | 2      |
| PHY 115       | Organic Chemistry                       | 5      |
| PHY 116       | General Mathematics                     | 5      |
| TOTAL CREDITS |   | 20     |
| Course Code   | BS: <b>Third</b> Semester Courses       | Credit |
| PHY 201       | Circuit Theory                          | 2      |
| PHY 202       | Biophysics                              | 3      |
| PHY 203       | Physics of Materials                    | 3      |
| PHY 204       | Industrial Electronics                  | 2      |
| PHY 205       | Electronics & Communication Technology  | 5      |
| PHY 206       | Thermodynamics                          | 5      |
| TOTAL CREDITS |   | 20     |
| Course Code   | BS: <b>Fourth</b> Semester Courses      | Credit |
| PHY 211       | Probability and Statistics              | 2      |
| PHY 212       | Mechanics and Fluids                    | 3      |
| PHY 213       | Electromagnetism                        | 3      |
| PHY 214       | Numerical and Computational Methods     | 2      |
| PHY 215       | Mathematical Methods                    | 5      |
| PHY 216       | Solid State Physics                     | 5      |
| TOTAL CREDITS |   | 20     |
| Course Code   | BS: <b>Fifth</b> Semester Courses       | Credit |
| PHY 301       | Special Relativity                      | 2      |
| PHY 302       | Nuclear and Particle Physics            | 3      |
| PHY 303       | Statistical Physics                     | 3      |
| PHY 304       | Materials - Introduction and Basics     | 2      |
| PHY 305       | Materials - Metals and Semiconductors   | 5      |
| PHY 306       | Microprocessors and Microcontrollers    | 5      |
| TOTAL CREDITS |   | 20     |
| Course Code   | BS: <b>Sixth</b> Semester Courses       | Credit |
| PHY 311       | Structured Programming                  | 2      |
| PHY 312       | Programming with Objects                | 3      |
| PHY 313       | Data Communication & Networking         | 3      |
| PHY 314       | Quantum Physics                         | 2      |
| PHY 315       | Bachelor Thesis                         | 10     |
| TOTAL CREDITS |   | 20     |

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