

Semester-wise Pattern for Students Admitted to B.E. Electronics and Instrumentation Programme

| Year | First Semester | | | U | Second Semester | | | U |
|---------------|---|------|---|--------------|-----------------|--------------------------|--------------------------------------|--------------|
| I | BITS | F103 | Introduction to Engineering Design and Prototyping | 4 | BITS | F111 | Thermodynamics | 3 |
| | BIO | F101 | Introduction to Biological Sciences | 3 | BITS | F112 | Technical Report Writing | 2 |
| | CHEM | F101 | Fundamentals of Chemistry | 3 | CS | F111 | Computer Programming | 4 |
| | MATH | F101 | Multivariable Calculus | 3 | MATH | F113 | Probability and Statistics | 3 |
| | PHY | F101 | Oscillations and Waves | 3 | MATH | F102 | Linear Algebra and Complex Variables | 3 |
| | BITS | F101 | Social Conduct | 1 | EEE | F111 | Electrical Sciences | 3 |
| | BITS | K101 | Physical Well-being and Creativity | 1* | BITS | F102 | Innovation and Design Thinking | 1 |
| | | | 18 | | | | 19 | |
| II | MATH | F211 | Mathematics III | 3 | ECON | F211 | Principles of Economics | 3 |
| | | | Humanities Electives | 3(min) | or | | | or |
| | INSTR | F211 | Electrical Machines | 4 | MGTS | F211 | Principles of Management | 3 |
| | INSTR | F212 | Electromagnetic Theory | 3 | | | Humanities Electives | 3(min) |
| | INSTR | F215 | Digital Design | 4 | INSTR | F241 | Microprocessors & Interfacing | 4 |
| | INSTR | F214 | Electronic Devices | 3 | INSTR | F242 | Control Systems | 3 |
| | | | | | INSTR | F243 | Signals & Systems | 3 |
| | | | | INSTR | F244 | Microelectronic Circuits | 3 | |
| | | | | BITS | F225 | Environmental Studies | 3 | |
| | | | 20(min) | | | | 22(min) | |
| Summer | BITS F221 Practice School – I (for PS Option Only) | | | | | | | |
| III | | | Open/Humanities Electives | 3to6 | | | Open/Humanities Electives | 3to6 |
| | INSTR | F311 | Electronic Instruments & Instrumentation Technology | 4 | INSTR | F341 | Analog Electronics | 4 |
| | INSTR | F312 | Transducers & Measurement Systems | 3 | INSTR | F342 | Power Electronics | 4 |
| | INSTR | F313 | Analog & Digital VLSI Design | 3 | INSTR | F343 | Industrial Instrumentation & Control | 3 |
| | | | Discipline Electives | 5(min) | | | Discipline Electives | 4(min) |
| | | | | 18/21 | | | | 18/21 |
| IV | | | Open Electives | 5to11 | BITS | F412 | Practice School-II | 20 |
| | | | Discipline Electives | 3 | or | | | or |
| | | | | | BITS | F421T | Thesis | 16 |
| | | | | or | F425T | Thesis | 18-20 | |
| | | | | or | F424T | Thesis (9) and Electives | 15-18 | |
| | | | | | | (6 to 9) | | |
| | | | | 8/14 | | | | 15/20 |

Discipline Core- 48 Units (14 Courses)

Discipline Electives-12 Units (4 Courses)