# GUJARAT TECHNOLOGICAL UNIVERSITY

## 3rd Semester BE

### BE 3rd Semester Exam Scheme & Subject Code (w.e.f. 2014-15)

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 1 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 1 |
| 2130101 | Fundamentals of Fluid Mechanics | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 1 |
| 2130103 | Analysis Of Mechanisms & Machine Elements | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 1 |
| 2130105 | Electrical Machines & Electronics | 3 | 1 | 0 | 4 | 70 | 30 | 30 | 20 | 150 | 1 |
| 2130106 | Aircraft Science and Manufacturing Processes | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 1 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 1 |
| | **Total** | 19 | 5 | 9 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 2 |
| 2130003 | Mechanics of Solid | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 2 |
| 2131903 | Manufacturing Process-1 | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 2 |
| 2131904 | Material Science and Metallurgy | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 2 |
| 2131905 | Engineering Thermodynamics | 4 | 1 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 2 |
| 2131906 | Kinematics of Machines | 3 | 1 | 0 | 4 | 70 | 30 | 30 | 20 | 150 | 2 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 2 |
| | **Total** | 20 | 4 | 6 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 4 |
| 2130003 | Mechanics of solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 4 |
| 2130401 | Introductory Biology | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 4 |
| 2130403 | Basic Biochemistry | 3 | 0 | 3 | 6 | 70 | 30 | 30 | 20 | 150 | 4 |
| 2130404 | Fundamentals of Organic Chemistry | 3 | 0 | 3 | 6 | 70 | 30 | 30 | 20 | 150 | 4 |
| 2130405 | Thermodynamics | 3 | 1 | 0 | 4 | 70 | 30 | 30 | 20 | 150 | 4 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 4 |
| | **Total** | 19 | 3 | 8 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 5 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 5 |
| 2130501 | Organic Chemistry and Unit Processes | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 5 |
| 2130502 | Fluid Flow Operation | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 5 |
| 2130504 | Process Calculation | 3 | 1 | 0 | 4 | 70 | 30 | 30 | 20 | 150 | 5 |
| 2130505 | Chemical Process Industries-1 | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 5 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 5 |
| | **Total** | 19 | 3 | 8 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 6 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 6 |
| 2130601 | Surveying | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 6 |
| 2130602 | Fluid Mechanics | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 6 |
| 2130606 | Geotechnics & Applied Geology | 4 | 0 | 1 | 5 | 70 | 30 | 30 | 20 | 150 | 6 |
| 2130607 | Building Construction | 3 | 1 | 0 | 4 | 70 | 30 | 30 | 20 | 150 | 6 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 6 |
| | **Total** | 20 | 3 | 7 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 7, 31 |
| 2130004 | Engineering Economics and Management | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 7, 31 |
| 2130702 | Data Structure | 4 | 0 | 4 | 8 | 70 | 30 | 30 | 20 | 150 | 7, 31 |
| 2130703 | Database Management Systems | 4 | 0 | 4 | 8 | 70 | 30 | 30 | 20 | 150 | 7, 31 |
| 2131004 | Digital Electronics | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 7, 31 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 7, 31 |
| | **Total** | 18 | 2 | 10 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advance Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 8 |
| 2130004 | Engineering Economics and Management | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 8 |
| 2130901 | Circuits and Networks | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 8 |
| 2130902 | Analog Electronics | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 8 |
| 2130903 | Electrical Measurement and Measuring Instruments | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 8 |
| 2130904 | DC Machines and Transformer | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 8 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 8 |
| | **Total** | 20 | 2 | 8 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advance Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 9 |
| 2130004 | Engineering Economics and Management | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 9 |
| 2130901 | Circuits & Networks | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 9 |
| 2130902 | Analog Electronics | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 9 |
| 2130903 | Electrical Measurement and Measuring Instruments | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 9 |
| 2130904 | DC Machines and Transformer | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 9 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 9 |
| | **Total** | 20 | 2 | 8 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advance Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 10 |
| 2130004 | Engineering Economics and Management | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 10 |
| 2130901 | Circuits and Networks | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 10 |
| 2131004 | Digital Electronics | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 10 |
| 2131005 | Electrical Machines | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 10 |
| 2131006 | Electronic Devices and Circuits | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 10 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 10 |
| | **Total** | 21 | 2 | 8 | 34 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 11, 12 |
| 2130004 | Engineering Economics and Management | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 11, 12 |
| 2130901 | Circuits and Networks | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 11, 12 |
| 2131004 | Digital Electronics | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 11, 12 |
| 2131005 | Electrical Machines | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 11, 12 |
| 2131006 | Electronics Devices & Circuits | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 11, 12 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 11, 12 |
| | **Total** | 21 | 2 | 8 | 34 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 13, 37 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 13, 37 |
| 2131301 | Environmental Sciences I | 4 | 0 | 4 | 8 | 70 | 30 | 30 | 20 | 150 | 13, 37 |
| 2131302 | Environmental Microbiology & Bioremediation | 4 | 2 | 0 | 6 | 70 | 30 | 30 | 20 | 150 | 13, 37 |
| 2131304 | Chemical Engg Processes | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 13, 37 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 13, 37 |
| | **Total** | 18 | 6 | 6 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 14 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 14 |
| 2131404 | Food Engineering Thermodynamics | 4 | 1 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 14 |
| 2131405 | Introduction to Food Processing Technology | 4 | 0 | 0 | 4 | 70 | 30 | 0 | 0 | 100 | 14 |
| 2131406 | Food Chemistry | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 14 |
| 2131407 | Basic Food Microbiology | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 14 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 14 |
| | **Total** | 21 | 3 | 6 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 16 |
| 2130004 | Engineering Economics & Management | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 16 |
| 2130702 | Data structures | 4 | 0 | 4 | 8 | 70 | 30 | 30 | 20 | 150 | 16 |
| 2130703 | Database Management Systems | 4 | 0 | 4 | 8 | 70 | 30 | 30 | 20 | 150 | 16 |
| 2131004 | Digital Electronics | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 16 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 16 |
| | **Total** | 18 | 2 | 10 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 17 |
| 2130004 | Engineering Economics and Management | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 17 |
| 2130901 | Circuits and Networks | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 17 |
| 2131005 | Electrical Machines | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 17 |
| 2131006 | Electronic Devices & circuits | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 17 |
| 2131704 | Digital Logic Circuits | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 17 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 17 |
| | **Total** | 20 | 2 | 8 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 19 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 19 |
| 2131903 | Manufacturing Process-1 | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 19 |
| 2131904 | Material Science and Metallurgy | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 19 |
| 2131905 | Engineering Thermodynamics | 4 | 1 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 19 |
| 2131906 | Kinematics of Machines | 3 | 1 | 0 | 4 | 70 | 30 | 30 | 20 | 150 | 19 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 19 |
| | **Total** | 20 | 4 | 9 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advance Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 20 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 20 |
| 2132001 | Industrial Drafting | 2 | 0 | 2 | 4 | 70 | 30 | 30 | 20 | 150 | 20 |
| 2132002 | Simulation & Design Tools | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 20 |
| 2132003 | Design Concepts in Basic Electronics | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 20 |
| 2132004 | Principles Of Materials Science And Physical Metallurgy | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 20 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 20 |
| | **Total** | 17 | 2 | 11 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advance Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 22 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 22 |
| 2130601 | Surveying | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 22 |
| 2130101 | Fundamentals of Fluid Mechanics | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 22 |
| 2132201 | Introduction To Mining | 4 | 0 | 0 | 4 | 70 | 30 | 0 | 0 | 100 | 22 |
| 2132203 | Geology-I | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 22 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 22 |
| | **Total** | 20 | 2 | 8 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 23 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 23 |
| 2132301 | Introduction to Plastic Material Science | 3 | 0 | 3 | 6 | 70 | 30 | 30 | 20 | 150 | 23 |
| 2132302 | Manufacturing of Plastic Materials-1 | 3 | 0 | 3 | 6 | 70 | 30 | 30 | 20 | 150 | 23 |
| 2132303 | Basic of Plastic Material Testing | 4 | 0 | 3 | 7 | 70 | 30 | 30 | 20 | 150 | 23 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 23 |
| | **Total** | 17 | 2 | 11 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advance Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 24 |
| 2130004 | Engineering Economics and Management | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 24 |
| 2130901 | Circuits & Networks | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 24 |
| 2132404 | **Principles of Power Electronics** | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 24 |
| 2130903 | Electrical Measurement and Measuring Instruments | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 24 |
| 2130904 | DC Machines & Transformer | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 24 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 24 |
| | **Total** | 20 | 2 | 8 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 25 |
| 2130003 | Mechanics of Solid | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 25 |
| 2131904 | Material Science and Metallurgy | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 25 |
| 2132501 | Machining Processes | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 25 |
| 2132502 | Engineering Thermodynamics & Heat transfer | 4 | 2 | 0 | 6 | 70 | 30 | 30 | 20 | 150 | 25 |
| 2132503 | Computer Aided Drafting | 0 | 0 | 2 | 2 | 0 | 0 | 80 | 20 | 100 | 25 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 25 |
| | **Total** | 18 | 4 | 8 | 30 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 28 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 28 |
| 2132801 | Textile Design & Colour | 4 | 0 | 0 | 4 | 70 | 30 | 0 | 0 | 100 | 28 |
| 2132805 | Organic Chemistry | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 28 |
| 2132806 | Textile Manufacturing - I | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 28 |
| 2132901 | Textile Fibres | 4 | 0 | 0 | 4 | 70 | 30 | 0 | 0 | 100 | 28 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 28 |
| | **Total** | 22 | 2 | 6 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 29 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 29 |
| 2132901 | Textile Fibres | 4 | 0 | 0 | 4 | 70 | 30 | 0 | 0 | 100 | 29 |
| 2132902 | Yarn Manufacturing-I | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 29 |
| 2132904 | Textile Processing - I | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 29 |
| 2132905 | Basic Engineering in Textile | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 29 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 29 |
| | **Total** | 22 | 2 | 6 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 32 |
| 2130004 | Engineering Economics & Management | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 32 |
| 2130702 | Data structures | 4 | 0 | 4 | 8 | 70 | 30 | 30 | 20 | 150 | 32 |
| 2130703 | Database Management Systems | 4 | 0 | 4 | 8 | 70 | 30 | 30 | 20 | 150 | 32 |
| 2131004 | Digital Electronics | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 32 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 32 |
| | **Total** | 18 | 2 | 10 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 34 |
| 2130003 | Mechanics of Solids | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 34 |
| 2133402 | Electrical Drives and Controls | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 34 |
| 2133403 | Engineering Materials and Metallurgy | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 34 |
| 2133404 | Basic Manufacturing Processes | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 34 |
| 2133405 | Manufacturing and Assembly Drawing | 2 | 0 | 2 | 4 | 70 | 30 | 30 | 20 | 150 | 34 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 34 |
| | **Total** | 18 | 2 | 10 | 33 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 36 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 36 |
| 2133605 | Organic Chemistry for Technologists | 3 | 0 | 3 | 6 | 70 | 30 | 30 | 20 | 150 | 36 |
| 2133606 | Material & Energy Balance Calculations | 3 | 1 | 0 | 4 | 70 | 30 | 30 | 20 | 150 | 36 |
| 2133607 | Physical Chemistry | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 36 |
| | Department Elective-I | 4 | 0 | 0 | 4 | 70 | 30 | 0 | 0 | 100 | 36 |
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 36 |
| | **Total** | 20 | 3 | 7 | 33 | | | | | | |

| Department Elective- I | |
|---|---|
| **Institute code** | **Name of the subject** |
| 2133601 | Introduction to Medicinal Chemistry & Biochemistry |
| 2133602 | Polymer Chemistry |
| 2133603 | Introduction to Glass & Ceramic Technology-I |
| 2133604 | Chemistry of Intermediates & Colorants-I |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 39 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 39 |
| 2133901 | Fundamentals of Solid State Technology | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 39 |
| 2133902 | Elements of Nanoscience and Nanotechnology-I | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 39 |
| 2133903 | Synthesis of Nanomaterials-I | 2 | 0 | 4 | 6 | 70 | 30 | 30 | 20 | 150 | 39 |
| 2133904 | Characterization of Nanomaterials-I | 2 | 0 | 4 | 6 | 70 | 30 | 30 | 20 | 150 | 39 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2130005 | Design Engineering - I A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 39 |
| | **Total** | 17 | 2 | 10 | 32 | | | | | | |

**Semester III**

| Subject code | Subject name | Teaching Scheme (Hours) | | | Credits | Theory Marks | | Tutorial/ Practical Marks | | Total Marks | Branch Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Theory | Tutorial | Practical | | ESE(E) | PA (M) | Viva (V) | PA(I) | | |
| 2130002 | Advanced Engineering Mathematics | 3 | 2 | 0 | 5 | 70 | 30 | 30 | 20 | 150 | 35 |
| 2130003 | Mechanics of Solids | 4 | 0 | 2 | 6 | 70 | 30 | 30 | 20 | 150 | 35 |
| 2133506 | Physico-chemical Processes | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 35 |
| 2133501 | Organic Chemistry | 3 | 0 | 3 | 6 | 70 | 30 | 30 | 20 | 150 | 35 |
| 2133502 | Analytical Techniques | 3 | 0 | 2 | 5 | 70 | 30 | 30 | 20 | 150 | 35 |
| 2133505 | Chemistry for Environmental Science and Technology | 3 | 0 | 0 | 3 | 70 | 30 | 0 | 0 | 100 | 35 |
| 2130005 | Design of Engineering-1 A | 0 | 0 | 3 | 3 | 0 | 0 | 80 | 20 | 100 | 35 |
| | **Total** | 19 | 2 | 9 | 33 | | | | | | |