

I Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|--|----|----|----|-----------|
| 1-HS | English – I | 4 | -- | -- | 3 |
| 2-BS | Mathematics - I | 4 | -- | -- | 3 |
| 3-ES | Engineering Chemistry | 4 | -- | -- | 3 |
| 4-BS | Engineering Mechanics | 4 | -- | -- | 3 |
| 5-BS | Computer Programming | 4 | -- | -- | 3 |
| 6-ES | Environmental Studies | 4 | -- | -- | 3 |
| 7-HS | Engineering/Applied Chemistry Laboratory | -- | -- | 3 | 2 |
| 8-BS | English - Communication Skills Lab - I | -- | -- | 3 | 2 |
| 9-ES | Computer Programming Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |

I Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|---|----|----|----|-----------|
| 1-HS | English – II | 4 | -- | -- | 3 |
| 2-BS | Mathematics – II (Mathematical Methods) | 4 | -- | -- | 3 |
| 3-BS | Mathematics – III | 4 | -- | -- | 3 |
| 4-ES | Engineering Physics | 4 | -- | -- | 3 |
| 5-HS | Basic Electrical and Electronics Engineering | 4 | -- | -- | 3 |
| 6-ES | Engineering Drawing | 4 | -- | -- | 3 |
| 7-BS | English - Communication Skills Lab - II | -- | -- | 3 | 2 |
| 8-HS | Engineering /Applied Physics Lab | -- | -- | 3 | 2 |
| 9-ES | Engineering /Applied Physics – Virtual Labs - Assignments | -- | -- | 2 | -- |
| 10 | Engg.Workshop & IT Workshop | -- | -- | 3 | 2 |
| Total Credits | | | | | 24 |

II Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|---|----|----|----|-----------|
| 1 | Metallurgy & Materials Science | 4 | -- | -- | 3 |
| 2 | Mechanics of Solids | 4 | -- | -- | 3 |
| 3 | Thermodynamics | 4 | -- | -- | 3 |
| 4 | Managerial Economics & Financial Analysis | 4 | -- | -- | 3 |
| 5 | Fluid Mechanics & Hydraulic Machines | 4 | -- | -- | 3 |
| 6 | Computer Aided Engineering Drawing Practice | 3 | 3 | -- | 3 |
| 7 | Electrical & Electronics Engg. Lab | -- | -- | 3 | 2 |
| 8 | Mechanics of Solids & Metallurgy Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |

II Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|--|----|----|----|-----------|
| 1 | Kinematics of Machinery | 4 | -- | -- | 3 |
| 2 | Thermal Engineering -I | 4 | -- | -- | 3 |
| 3 | Production Technology | 4 | -- | -- | 3 |
| 4 | Design of Machine Members -I | 4 | -- | -- | 3 |
| 5 | Machine Drawing | 3 | 3 | -- | 3 |
| 6 | Industrial Engineering and Management | 4 | -- | -- | 3 |
| 7 | Fluid Mechanics & Hydraulic Machines Lab | -- | -- | 3 | 2 |
| 8 | Production Technology Lab | -- | -- | 3 | 2 |
| Total Credits | | | | | 22 |

III Year - I Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|-------------------------------|----|----|----|-----------|
| 1 | Dynamics of Machinery | 4 | -- | -- | 3 |
| 2 | Metal Cutting & Machine Tools | 4 | -- | -- | 3 |
| 3 | Design of Machine Members–II | 4 | -- | -- | 3 |
| 4 | Operations Research | 4 | -- | -- | 3 |
| 5 | Thermal Engineering -II | 4 | -- | -- | 3 |
| 6 | Theory of Machines Lab | -- | -- | 3 | 2 |
| 7 | Machine Tools Lab | -- | -- | 3 | 2 |
| 8 | Thermal Engineering Lab | -- | -- | 3 | 2 |
| 9 | IPR & Patents | -- | 2 | -- | -- |
| Total Credits | | | | | 21 |

III YEAR - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|--|----|----|----|-----------|
| 1 | Metrology | 4 | -- | -- | 3 |
| 2 | Instrumentation & Control Systems | 4 | -- | -- | 3 |
| 3 | Refrigeration & Air-conditioning | 4 | -- | -- | 3 |
| 4 | Heat Transfer | 4 | -- | -- | 3 |
| 5 | OPEN ELECTIVE 1. Entrepreneurship 2. Data Base Management System 3. Waste Water Management 4. Computer Graphics 5. Industrial Robotics 6. Green Engineering Systems | 4 | -- | -- | 3 |
| 6 | Heat Transfer Lab | -- | -- | 3 | 2 |
| 7 | Metrology & Instrumentation Lab | -- | -- | 3 | 2 |
| 8 | Computational Fluid Dynamics Lab | -- | -- | 3 | 2 |
| 9MC | Professional Ethics & Human Values | -- | 3 | -- | -- |
| Total Credits | | | | | 21 |

IV Year - I Semester

| S. NO | Subjects | L | T | P | Credits |
|----------------------|--|----|----|----|-----------|
| 1 | Mechatronics | 4 | -- | -- | 3 |
| 2 | CAD/CAM | 4 | -- | -- | 3 |
| 3 | Finite Element Methods | 4 | -- | -- | 3 |
| 4 | Power Plant Engineering | 4 | -- | -- | 3 |
| 5 | Elective I 1. Computational Fluid Dynamics 2. Condition Monitoring 3. Additive Manufacturing | 4 | -- | -- | 3 |
| 6 | Elective II 1. Advanced Materials 2. Design for Manufacture 3. Gas Dynamics & Jet Propulsion | 4 | -- | -- | 3 |
| 7 | CAD/CAM Lab | -- | -- | 2 | 2 |
| 8 | Mechatronics Lab | -- | -- | 2 | 2 |
| Total Credits | | | | | 22 |

IV Year - II Semester

| S. No. | Subjects | L | T | P | Credits |
|----------------------|---|----|----|----|-----------|
| 1 | Production Planning and Control | 4 | -- | -- | 3 |
| T 2 | Unconventional Machining Processes | 4 | -- | -- | 3 |
| 3 | Automobile Engineering | 4 | -- | -- | 3 |
| 4 | Elective III 1. Thermal Equipment Design 2. Non Destructive Evaluation 3. Quality and Reliability Engineering | 4 | -- | -- | 3 |
| 5 | Seminar | -- | 3 | -- | 2 |
| 6 | Project | -- | -- | -- | 10 |
| Total Credits | | | | | 24 |

Total Course Credits = 48+44 + 42 + 46 = 180