**Second Year - Third Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | |
| **Sl No.** | | **Subject Code** | | **Theory** | | **Contact Hours/Week** | | | | | | **Credit**  **Points** |
|  | |  | |  | | **L** | **T** | **P** | **Total** | | |  |
| **1** | | **HU-301** | | Values & Ethics in Profession | | 3 | 0 | 0 | 3 | | | 3 |
| **2** | | **M (CS) 301** | | Numerical Methods | | 2 | 1 | 0 | 3 | | | 2 |
| **3** | | **CH301** | | Basic Environmental Engineering &Elementary Biology | | 3 | 0 | 0 | 3 | | | 3 |
| **4** | | **ME 301** | | Applied Thermodynamics | | 4 | 0 | 0 | 4 | | | 4 |
| **5** | | **ME 302** | | Strength of Materials | | 3 | 1 | 0 | 4 | | | 4 |
| **6** | | **ME 303** | | Engineering Materials | | 3 | 1 | 0 | 4 | | | 3 |
| **Total of Theory** | | | | | | | | | **21** | | | **20** |
| **B. PRACTICAL** | | | | | | | | | | | | |
| **7** | | **HU-381** | | Technical Report Writing &  Language Lab Practice | | 0 | 0 | 3 | | 3 | 2 | |
| **8** | | **M (CS) 391** | | Numerical Methods | | 0 | 0 | 2 | | 2 | 1 | |
| **8** | | **ME 391** | | Machine Drawing –I | | 0 | 0 | 3 | | 3 | 2 | |
| **9** | | **ME 392** | | Workshop Practice-II | | 0 | 0 | 3 | | 3 | 2 | |
| **10** | | **ME 393** | | Applied Mechanics Lab | | 0 | 0 | 3 | | 3 | 2 | |
| **Total of Practical** | | | | | | | | | | **14** | **9** | |
| **C. SESSIONAL** | | | | | | | | | | | | |
| **11** | **GS 381** | | General Studies - III | | 3 | | 1 | 0 | | 4 | 4 | |
| **Total of Sessional** | | | | | | | | | | **4** | **4** | |
| **Total of Semester** | | | | | | | | | | **39** | **33** | |

**Second Year Fourth Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | |
| **Sl No.** | **Subject Code** | | **Theory** | | | **Contact Hours/Week** | | | | | | **Credit**  **Points** |
|  |  | |  | | | **L** | **T** | | | **P** | **Total** |  |
| **1** | **M 401** | | Mathematics-3 | | | 3 | 1 | | | 0 | 4 | 4 |
| **2** | **ME 401** | | Fluid Mechanics & Hydraulic  Machines | | | 3 | 1 | | | 0 | 4 | 4 |
| **3** | **ME 402** | | Mechanisms | | | 3 | 0 | | | 0 | 3 | 3 |
| **4** | **ME 403** | | Primary Manufacturing Processes | | | 3 | 1 | | | 0 | 4 | 4 |
| **5** | **ME 404** | | Heat Transfer | | | 3 | 1 | | | 0 | 4 | 4 |
| **Total of Theory** | | | | | | | | | | | **19** | **19** |
| **B. PRACTICAL** | | | | | | | | | | | | |
| **6** | **ME491** | | Fluid Mechanics & Hydraulics Lab | | | 0 | 0 | | | 3 | 3 | 2 |
| **7** | **ME 492** | | Manufacturing Technology Lab | | | 0 | 0 | | | 3 | 3 | 2 |
| **8** | **ME493** | | Material Testing Lab | | | 0 | 0 | | | 3 | 3 | 2 |
| **9** | **ME 494** | | Machine Drawing-II | | | 0 | 0 | | | 3 | 3 | 2 |
| **10** | **ME 495** | | Applied Thermodynamics & Heat Transfer Lab | | | 0 | 0 | | | 3 | 3 | 2 |
| **Total of Practical** | | | | | | | | | | | **15** | **10** |
| **C. SESSIONAL** | | | | | | | | | | | | |
| **11** | | **GS 481** | | General Studies - IV | 3 | | | 1 | 0 | | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | **38** | **33** |

**Third Year – Fifth Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | |
| **Sl No.** | | **Subject Code** | **Theory** | | **Contact Hours/Week** | | | | | | | **Credit**  **Points** |
|  | |  |  | | **L** | | | **T** | | **P** | **Total** |  |
| **1** | | **HU511** | Principles & Practices ofManagement | | 2 | | | 0 | | 0 | 2 | 2 |
| **2** | | **ME 501** | Dynamics of Machines | | 3 | | | 1 | | 0 | 4 | 4 |
| **3** | | **ME 502** | Design of Machine Elements | | 3 | | | 1 | | 0 | 4 | 4 |
| **4** | | **ME 503** | Metrology & Measurement | | 3 | | | 1 | | 0 | 4 | 4 |
| **5** | | **ME 504** | Professional Elective-I  A-Electrical Machines  B-Applied Fluid Mechanics | | 3 | | | 0 | | 0 | 3 | 3 |
| **6** | | **ME 505** | Free Elective – I  A. Data Base Management Systems  B. Operating System  C. Microprocessor & Microcontroller | | 3 | | | 0 | | 0 | 3 | 3 |
| **Total of Theory** | | | | | | | | | | | **20** | **20** |
| **B. PRACTICAL** | | | | | | | | | | | | |
| **7** | | **ME 581 (Sessional)** | Seminar-I | | 0 | | | 0 | | 3 | 3 | 2 |
| **8** | | **ME 592** | Design Practice-I | | 0 | | | 0 | | 3 | 3 | 2 |
| **9** | | **ME593** | Metrology & Measurement Lab | | 0 | | | 0 | | 2 | 2 | 1 |
| **10** | | **ME 594** | Professional Elective – I Lab | | 0 | | | 0 | | 3 | 3 | 2 |
| **11** | | **ME 595** | Free Elective – I Lab | | 0 | | | 0 | | 3 | 3 | 2 |
| **Total of Practical** | | | | | | | | | | | **14** | **9** |
| **C. SESSIONAL** | | | | | | | | | | | | |
| **12** | **GS 581** | | | General Studies - V | | 3 | 1 | | 0 | | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | **38** | **33** |

**Third Year – Sixth Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | |
| **Sl No.** | **Subject Code** | | | **Theory** | **Contact Hours/Week** | | | | | | | **Credit**  **Points** |
|  |  | | |  | **L** | | | | **T** | **P** | **Total** |  |
| **1** | **HU 611** | | | Production & Operations Management | 2 | | | | 0 | 0 | 2 | 2 |
| **2** | **ME 601** | | | IC Engines and Gas Turbines | 3 | | | | 0 | 0 | 3 | 3 |
| **3** | **ME 602** | | | Machining Principles & MachineTools | 3 | | | | 0 | 0 | 3 | 3 |
| **4** | **ME 603** | | | Machine Design | 3 | | | | 0 | 0 | 3 | 3 |
| **5** | **ME 604** | | | Professional Elective-II  A. Air Conditioning & Refrigeration  B. Mechatronics  C. Fluid Power Control | 3 | | | | 0 | 0 | 3 | 3 |
| **6** | **ME 605** | | | Free Elective-II  A. Control System  B. Software Engineering  C. Operations Research | 3 | | | | 0 | 0 | 3 | 3 |
| **Total of Theory** | | | | | | | | | | | **17** | **17** |
| **B. PRACTICAL** | | | | | | | | | | | | |
| **7** | **ME 691** | | | Machining & Machine Tools Lab | | | 0 | | 0 | 3 | 3 | 2 |
| **8** | **ME 692** | | | IC Engine Lab | | | 0 | | 0 | 3 | 3 | 2 |
| **9** | **ME 693** | | | Design Practice-II | | | 0 | | 0 | 3 | 3 | 2 |
| **10** | **ME 694** | | | Dynamics of Machines Lab | | | 0 | | 0 | 3 | 3 | 2 |
| **11** | **ME 695** | | | Professional Elective-II Lab | | | 0 | | 0 | 3 | 3 | 2 |
| **Total of Practical** | | | | | | | | | | | **15** | **10** |
| **C. SESSIONAL** | | | | | | | | | | | | |
| **12** | | **GS 681** | General Studies - VI | | | 3 | | 1 | | 0 | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | **36** | **31** |

**Fourth Year – Seventh Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | | |
| **Sl No.** | | **Subject Code** | | **Theory** | **Contact Hours/Week** | | | | | | | | **Credit**  **Points** |
|  | |  | |  | **L** | | | **T** | **P** | | **Total** | |  |
| **1** | | **ME 701** | | Power Plant Engineering | 4 | | | 0 | 0 | | 4 | | 4 |
| **2** | | **ME 702** | | Advanced Manufacturing Technology | 4 | | | 0 | 0 | | 4 | | 4 |
| **3** | | **ME 703** | | Professional Elective-III  A. Materials Handling  B. Finite Element Method  C. Turbo Machinery | 3 | | | 0 | 0 | | 3 | | 3 |
| **4** | | **ME 704** | | Professional Elective-IV  A. Maintenance Engineering  B. Renewable Energy Systems  C. Tribology | 3 | | | 0 | 0 | | 3 | | 3 |
| **5** | | **ME 705** | | Professional Elective – V  A. Quantity Production Method  B. Advanced Welding Technology  C. Computational Methods in Engineering | 3 | | | 0 | 0 | | 3 | | 3 |
| **6** | | **ME 706** | | Free Elective-III  A. Object Oriented Programming  B. Artificial Inelegance  C. Electronic Measurement & Instrumentation | 3 | | | 0 | 0 | | 3 | | 3 |
| **Total of Theory** | | | | | | | | | | | **20** | | **20** |
| **B. PRACTICAL** | | | | | | | | | | | | | |
| **6** | | **ME 791** | | Advanced Manufacturing Lab | 0 | | | 0 | 3 | | | 3 | 2 |
| **7** | | **ME 781** | | Project : Part 1 | 0 | | | 0 | 4 | | | 4 | 2 |
| **8** | | **ME 782** | | Viva Voce on Vocational Training | 0 | | | 0 | 0 | | | 0 | 2 |
| **9** | | **ME783** | | Group Discussion | 0 | | | 0 | 0 | | | 0 | 2 |
| **Total of Practical** | | | | | | | | | | | | **7** | **8** |
| **C. SESSIONAL** | | | | | | | | | | | | | |
| **10** | **GS 781** | | General Studies - VII | | | 3 | 1 | | | 0 | | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | | **31** | **32** |

**Fourth Year – Eighth Semester**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A.THEORY** | | | | | | | | | | | | |
| **Sl No.** | **Subject Code** | | | **Theory** | | **Contact Hours/Week** | | | | | | **Credit**  **Points** |
|  |  | | |  | | **L** | **T** | **P** | | **Total** | |  |
| **1** | **ME 801 (HU)** | | | Economics for Engineers | | 3 | 0 | 0 | | 3 | | 3 |
| **2** | **ME 802** | | | Professional Elective-VI  A. CAD/CAM  B. Industrial Robotics  C. Energy Conservation & Management  D. Quality & Reliability Engineering | | 3 | 0 | 0 | | 3 | | 3 |
| **3** | **ME 803** | | | Free Elective-IV  A. Safety & Occupational Health  B. Automation & Control  C. Water Resource Engineering  D. Automobile Engineering | | 3 | 0 | 0 | | 3 | | 3 |
| **Total of Theory** | | | | | | | | | | **9** | | **9** |
| **B. PRACTICAL** | | | | | | | | | | | | |
| **4** | **ME 881** | | Deign of a Mechanical System | | 0 | | 0 | 6 | | | 6 | 4 |
| **5** | **ME 882** | | Project : Part II | | 0 | | 0 | 12 | | | 12 | 6 |
| **6** | **ME 883** | | Comprehensive viva | | 0 | | 0 | 0 | | | 0 | 2 |
| **Total of Practical** | | | | | | | | | | | **18** | **12** |
| **C. SESSIONAL** | | | | | | | | | | | | |
| **7** | | **GS 881** | | General Studies - VIII | | 3 | 1 | | 0 | | 4 | 4 |
| **Total of Sessional** | | | | | | | | | | | **4** | **4** |
| **Total of Semester** | | | | | | | | | | | **31** | **25** |