**Course Structure of Diploma in Mechanical Engineering**

**Duration: 6 Semesters**

**Summary of Credits**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Semester** | **Credits** | **Year Credits** |
| First Year | I | 22 | 48 |
| II | 26 |
| Second Year | III | 26 | 54 |
| IV | 28 |
| Third Year | V | 27 | 56 |
| VI | 29 |
| **Total Credits** | **158** |

**Semester I**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **Subject** | **Periods** | **Credits** |
|  | **Theory** | **L** | **T** | **P** |  |
| PHT/PHL 1101 | Introduction to Physics | 3 | - | 2 | 4 |
| CHT/CHL1101 | Introduction to Chemistry | 3 | - | 2 | 4 |
| MAT 1101 | Introduction to Mathematics | 3 | 1 | - | 4 |
| HST/HSL 1101 | English Language | 2 | - | 2 | 3 |
| MET/MEL1101 | Engineering Graphics | 1 | - | 4 | 3 |
| CST/CSL 1101 | Fundamentals of Computer | 2 | - | 2 | 3 |
| MEL 1102 | Engineering Workshop | - | - | 2 | 1 |
|  | **ALL** | **14** | **1** | **14** | **22** |
|  | **Total Periods** | **29** |

**Semester II**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **Subject** | **Periods** | **Credits** |
|  | **Theory** | **L** | **T** | **P** |  |
| HST/HSL 1201 | English Communication Skills | 2 | - | 2 | 3 |
| MAT 1201 | Engineering Mathematics | 4 | 1 | - | 5 |
| MET 1201 | Engineering Materials | 3 | - | - | 3 |
| MET/MEL 1202 | Engineering Mechanics | 3 | - | 2 | 4 |
| HST 1201 | Engineering Economics and Principles of Management | 4 | - | - | 4 |
| MET/MEL 1203 | Engineering Drawing | 1 | - | 2 | 2 |
| EEET/EEL 1101 | Fundamentals of Electrical and Electronics Engineering | 4 | - | 2 | 5 |
|  | **ALL** | **21** | **1** | **8** | **26** |
|  | **Total Periods** | **30** |

**Semester III**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **Subject** | **Periods** | **Credits** |
|  | **Theory** | **L** | **T** | **P** |  |
| HST 2101 | Cost Benefit Analysis | 4 | - | - | 4 |
| HST 2102 | Environmental Studies | 4 | - | - | 4 |
| HST 2103 | Development of Life Skills | 1 | - | 2 | 2 |
| MET/MEL 2101 | Machine Drawing | 1 | - | 4 | 3 |
| MET/MEL 2102 | Strength of Materials | 3 | 1 | 2 | 5 |
| MET/MEL 2103 | Basic Machining Processes | 3 | - | 2 | 4 |
| MET/MEL 2104 | Theory of Machines-I | 3 | - | 2 | 4 |
|  | **ALL** | **19** | **1** | **12** | **26** |
|  | **Total Periods** | **32** |

**Semester IV**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **Subject** | **Periods** | **Credits** |
|  | **Theory** | **L** | **T** | **P** |  |
| MET/MEL 2201 | Theory of Machines -II | 3 | - | 2 | 4 |
| MET 2202 | Industrial Management | 3 | - | - | 3 |
| MET/MEL 2203 | Fluid Mechanics | 3 | - | 2 | 4 |
| MET/MEL 2204 | Thermal Engineering | 3 | - | 2 | 4 |
| MEL 2205 | Manufacturing Technology | 3 | - | 2 | 4 |
| CST/CSL 2201 | Computer Programming | 1 | - | 2 | 2 |
| HST 2201 | Soft Skills – I | 2 | - | 2 | 3 |
| MEP 2201 | Project-I(Minor): Report/Seminar | - | - | 2 | 4 |
|  | **ALL** | **18** | **-** | **14** | **28** |
|  | **Total Periods** | **32** |

**Note:** All Students must opt for 6-8 weeks Internship Program-I during Summer Vacation after IV sem 2nd Year and their evaluation will be done during V Sem, 3rd Year.

**Semester V**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **Subject** | **Periods** | **Credits** |
|  | **Theory** | **L** | **T** | **P** |  |
| MET/MEL 3101 | Advanced Manufacturing Processes | 3 | - | 2 | 4 |
| MET/MEL 3102 | Power Engineering-I | 3 | - | 2 | 4 |
| MET/MEL 3103 | Measurement & Control | 3 | - | 2 | 4 |
| MET/MEL 3104 | Fluid Machinery | 3 | - | 2 | 4 |
| HST 3101 | Soft Skills - II | 2 | - | 2 | 3 |
|  | **Elective – I**  | 3 | - | - | 3 |
| MEP 3101 | Project-II(Minor):Report/Seminar | - | - | 2 | 4 |
|  | Seminar | - | - | 1 | 1 |
|  | **ALL** | **17** | **-** | **13** | **27** |
|  | **Total Periods** | **30** |

**List of Elective – I**

|  |  |
| --- | --- |
| Course Code  |  Subject Name |
| MET 3111 | Machine Tool Technology |
| MET 3122 | Modern Practices in Manufacturing  |

**Semester VI**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course Code** | **Subject** | **Periods** | **Credits** |
|  | **Theory** | **L** | **T** | **P** |  |
| MET/MEL 3201 | Power Engineering-II | 3 | - | 2 | 4 |
| MET 3202 | Design of Machine Elements | 3 | - | - | 3 |
| MET 3203 | Industrial Fluid Power | 3 | - | - | 3 |
| MET/MEL 3204 | Metrology & Quality Control | 3 | - | 2 | 4 |
| HST 3201 | Soft Skills - III | 2 | - | 1 | 3 |
|  |  **Elective – II**  | 3 | - | - | 3 |
|  | **Elective – III** | 3 | - | - | 3 |
| MEP 3201 | Project(Major):Report,Seminar& Viva Voce | - | - | 2 | 6 |
|  | **ALL** | **20** | **-** | **7** | **29** |
|  | **Total Periods** | **27** |

**List of Electives II & III**

|  |  |
| --- | --- |
| Course Code  |  Subject Name |
| MET 3211 | Plastic Materials &testing. |
| MET 3222 | Plastics Processing Techniques. |
| MET 3233 | Automotive Petrol and Diesel engines |
| MET 3244 | Automotive Chassis |