**COURSE STRCUTURE FOR UG ENGINEERING UNDER**

**DIBRUGARH UNIVERSITY**

**MECHANICAL ENGINEERING**

**SEMESTER I**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl No. | Course Code | Course Title | L | T | P | Contact hrs/wk | Credit |
| 01 | HS1C01 | Sociology | 2 | 0 | 0 | 2 | 2 |
| 02 | HS1C02 | Business Communications | 2 | 0 | 0 | 2 | 2 |
| 03 | MA1C01 | Mathematics I | 3 | 1 | 0 | 4 | 4 |
| 04 | PH1C01 | Applied Physics I | 3 | 1 | 0 | 4 | 4 |
| 05 | PH1C02 | Applied Physics Laboratory I | 0 | 0 | 2 | 2 | 1 |
| 06 | CH1C01 | Engineering Chemistry I | 3 | 1 | 0 | 4 | 4 |
| 07 | CH1C02 | Engineering Chemistry Laboratory I | 0 | 0 | 2 | 2 | 1 |
| 08 | CE1C01 | Engineering Graphics | 1 | 3 | 0 | 4 | 4 |
| 09 | EE1C01 | Basic Electrical Engineering | 3 | 1 | 0 | 4 | 4 |
| 10 | EE1C02 | Basic Electrical Engineering Laboratory | 0 | 0 | 2 | 2 | 1 |
| 11 | ME1C01 | Engineering Workshop I | 0 | 0 | 2 | 2 | 1 |
| **Total** | | | | | | **32** | **28** |

**SEMESTER II**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sl No. | Course Code | Course Title | L | T | P | Contact hrs/wk | Credit |
| 01 | HS1C03 | Economics for Engineers | 2 | 0 | 0 | 2 | 2 |
| 02 | HS1C04 | Presentation Skills | 1 | 2 | 0 | 3 | 2 |
| 03 | MA1C02 | Mathematics II | 3 | 1 | 0 | 4 | 4 |
| 04 | PH1C03 | Applied Physics II | 3 | 1 | 0 | 4 | 4 |
| 05 | PH1C04 | Applied Physics Laboratory II | 0 | 0 | 2 | 2 | 1 |
| 06 | CH1C03 | Engineering Chemistry II | 3 | 1 | 0 | 4 | 4 |
| 07 | CH1C04 | Engineering Chemistry Laboratory II | 0 | 0 | 2 | 2 | 1 |
| 08 | CS1C01 | Computer Programming | 3 | 0 | 0 | 3 | 3 |
| 09 | CS1C02 | Computer Programming Laboratory | 0 | 0 | 2 | 2 | 1 |
| 10 | ME1C02 | Engineering Mechanics | 3 | 1 | 0 | 4 | 4 |
| 11 | ME1C03 | Engineering Mechanics Laboratory | 0 | 0 | 2 | 2 | 1 |
| 12 | ME1C04 | Engineering Workshop II | 0 | 0 | 2 | 2 | 1 |
| **Total** | | | | | | **34** | **28** |
| 13 | AC1C01 | Environmental studies |  |  |  |  | 0 |

**SEMESTER III**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SI No | Course Code | Course Title | L | | T | P | Contact hrs/ week | Credits |
| 1 | MA2C01 | Mathematics-III | 3 | | 1 | 0 | 4 | 4 |
| 2 | ME2C01 | Engineering Materials | 3 | | 1 | 0 | 4 | 4 |
| 3 | ME2C02 | Thermal Science | 3 | | 1 | 0 | 4 | 4 |
| 4 | ME2C03 | Mechanical Drawing | 2 | | 4 | 0 | 6 | 6 |
| 5 | CS2C | Electronic Devices & Circuit | 3 | | 1 | 0 | 4 | 4 |
| 6 | ME2C04 | Primary Manufacturing | 3 | | 1 | 0 | 4 | 4 |
| 7 | ME2C05 | Basic Electronics Laboratory | 0 | | 0 | 2 | 2 | 1 |
| 8 | ME2C06 | CAD Laboratory | 0 | | 0 | 2 | 2 | 1 |
|  |  | **Total** | | | | | **30** | **28** |
| 9 | AC2C01 | Language Laboratory | | 0 | 0 | 4 | 4 | 0 |

**SEMESTER IV**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SI No | Course Code | Course Title | L | | T | P | Contact hrs/ week | Credits |
| 1 | MA2C02 | Mathematics-IV | 3 | | 1 | 0 | 4 | 4 |
| 2 | ME2C07 | Mechanism and Machine | 3 | | 1 | 0 | 4 | 4 |
| 3 | ME2C08 | Machine Tools and Machining | 3 | | 1 | 0 | 4 | 4 |
| 4 | ME2C09 | Fluid Mechanics | 4 | | 1 | 0 | 5 | 5 |
| 5 | ME2C10 | Mechanics of materials | 3 | | 1 | 0 | 4 | 4 |
| 6 | ME2C11 | Thermodynamics | 3 | | 1 | 0 | 4 | 4 |
| 7 | ME2C12 | Strength of Materials Laboratory | 0 | | 0 | 2 | 2 | 1 |
| 8 | ME2C13 | Fluid Mechanics Laboratory | 0 | | 0 | 2 | 2 | 1 |
| 9 | ME2C14 | Industrial Testing Laboratory | 0 | | 0 | 2 | 2 | 1 |
|  |  | **Total** | | | | | **31** | **28** |
| 10 | AC2C01 | Language Laboratory | | 0 | 0 | 4 | 4 | 0 |

**SEMESTER V**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SI No | Course Code | Course Title | L | T | P | Contact hrs/ week | Credits |
| 1 | MA3C01 | Engineering Mathematics-V | 3 | 1 | 0 | 4 | 4 |
| 2 | ME3C01 | Advanced Mechanics of Solids | 3 | 1 | 0 | 4 | 4 |
| 3 | ME3C02 | Advanced Fluid Mechanics | 3 | 1 | 0 | 4 | 4 |
| 4 | ME3C03 | Design of Machine Element-I | 3 | 1 | 0 | 4 | 4 |
| 5 | ME3C04 | Non-traditional & Computer Aided  Manufacturing | 3 | 1 | 0 | 4 | 4 |
| 6 | ME3C05 | Applied Thermodynamics | 3 | 1 | 0 | 4 | 4 |
| 7. | ME3C06 | Basic Simulation Laboratory | 0 | 0 | 2 | 2 | 1 |
| 8 | ME3C07 | Dynamics of Machinery Laboratory | 0 | 0 | 2 | 2 | 1 |
| 9 | ME3C08 | Production Process Laboratory | 0 | 0 | 2 | 2 | 1 |
| 10 | ME3C09 | Applied Thermodynamics Laboratory | 0 | 0 | 2 | 2 | 1 |
|  |  | **Total** | | | | **32** | **28** |

**SEMESTER VI**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SI No | Course Code | Course Title | L | T | P | Contact hrs/ week | Credits |
| 1 | HS3C01 | Introduction to Accountancy & Management | 3 | 1 | 0 | 4 | 4 |
| 2 | ME3C10 | IC Engine | 3 | 1 | 0 | 4 | 4 |
| 3 | ME3C11 | Principle of machinery and control Engineering | 3 | 1 | 0 | 4 | 4 |
| 4 | ME3C12 | Design of Machine Element-II | 3 | 1 | 0 | 4 | 4 |
| 5 | ME3C13 | Metrology | 3 | 1 | 0 | 4 | 4 |
| 6 | ME3C14 | Workshop | 0 | 0 | 4 | 4 | 2 |
| 7 | ME3C15 | Metrology Laboratory | 0 | 0 | 2 | 2 | 1 |
| 8 | ME3C16 | CNC Laboratory | 0 | 0 | 2 | 2 | 1 |
| 9 | ME3C17 | Industrial Training | 0 | 0 | 0 | 0 | 1 |
| 10 | ME3C18 | Mini Project | 0 | 0 | 3 | 3 | 3 |
|  | **Total** | | | | | **31** | **28** |

**SEMESTER VII**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SI No |  | Course Title | L | T | P | Contact hrs/ week | Credits |
| 1 | ME4C01 | Engineering Optimization | 4 | 0 | 0 | 4 | 4 |
| 2 | ME4C02 | Turbo Machinery | 2 | 1 | 0 | 3 | 3 |
| 3 | ME4C03 | Mechanical Vibration and noise control | 3 | 1 | 0 | 4 | 4 |
| 4 | ME4C04 | Heat & Mass Transfer-I | 2 | 1 | 0 | 3 | 3 |
| 5 | ME4EXX | Elective –I | 3 | 1 | 0 | 4 | 4 |
| 6 | ME4C06 | Fluid Machinery Laboratory | 0 | 0 | 2 | 2 | 1 |
| 7 | ME4C07 | HMT Laboratory | 0 | 0 | 2 | 2 | 1 |
| 8 | ME4C08 | Seminar Presentations | 0 | 0 | 4 | 4 | 2 |
| 9 | ME4C09 | Project I | 0 | 0 | 6 | 6 | 6 |
|  | **Total** | | | | | **32** | **28** |

**SEMESTER VIII**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| SI No | Course Code | Course Title | L | T | P | Contact hrs/ week | Credits |
| 1 | ME4C10 | Industrial Engineering | 4 | 0 | 0 | 4 | 4 |
| 2 | ME4C11 | Power Plant Engineering | 4 | 0 | 0 | 4 | 4 |
| 3 | ME4C12 | Heat and Mass Transfer-II | 3 | 1 | 0 | 4 | 4 |
| 4 | ME4EXX | Elective –II | 3 | 1 | 0 | 4 | 4 |
| 5 | ME4C14 | Comprehensive Viva-Voce | 0 | 0 | 4 | 4 | 2 |
| 6 | ME4C15 | Project II | 0 | 0 | 10 | 10 | 10 |
|  | **Total** | | | | | **30** | **28** |

\*\* In ME4EXX, XX is the serial number of an elective in the list of electives for the department. Each course in this list of electives is assigned a permanent serial number.