

## Curriculum: Mechanical Engineering (ME) Field

| Subject Code                                  | Subject Name                                | Category <sup>§</sup> | GPA Credits | NGPA Credits | Total Contact hours (or Weeks) |
|---|---|-----------------------|-------------|--------------|--------------------------------|
| <b>Certificate Level (CL) – Stage I</b>       |   |                       |             |              |                                |
| <i>Semester 1</i>                             |   |                       |             |              |                                |
| MA1001  | Engineering Mathematics I                   | CC                    | 4           |              | 60                             |
| HM1001  | Language Skills Development                 | CC                    |             | 4            | 60                             |
| EE1001  | Basic Electrical Engineering                | CC                    | 4           |              | 60                             |
| ET1001  | Introduction to ICT                         | CC                    | 4           |              | 60                             |
| ME1001  | Mechanics and Properties of Materials       | CC                    | 4           |              | 60                             |
| ME1002  | Engineering Mechanics                       | CC                    | 4           |              | 60                             |
| <b>Total Credits for DL Stage I</b>           |   |                       | <b>20</b>   |              |                                |
| <b>Certificate Level – Stage II</b>           |   |                       |             |              |                                |
| <i>Semester 2</i>                             |   |                       |             |              |                                |
| MA1002  | Engineering Mathematics II                  | CC                    | 4           |              | 60                             |
| EE1002  | Electrical Measurements and Instrumentation | FC                    | 4           |              | 60                             |
| ME1003  | Presentation of Engineering Information     | CC                    | 3           |              | 45                             |
| ME1004  | Engineering in Context                      | CC                    | 3           |              | 45                             |
| ME1005  | Thermodynamics and Fluid Mechanics          | CC                    | 4           |              | 60                             |
| ME1006  | Manufacturing Processes                     | FC                    | 4           |              | 60                             |
| <b>Total credits for CL stage II</b>          |   |                       | <b>22</b>   |              |                                |
| <b>Total Credits for Certificate Level</b>    |   |                       | <b>42</b>   | <b>4</b>     |                                |
| <b>Advanced Diploma Level (ADL) – Stage I</b> |   |                       |             |              |                                |
| <i>Semester 3</i>                             |   |                       |             |              |                                |
| MA2001  | Engineering Mathematics III                 | CC                    | 4           |              | 60                             |
| EE2050  | Power Systems and Machines                  | FC                    | 4           |              | 60                             |
| ET2001  | Electronics I                               | FC                    | 4           |              | 60                             |
| ME2001  | Mechanics of Machines                       | FC                    | 4           |              | 30                             |
| <b>Total Credits for Semester 3</b>           |   |                       | <b>16</b>   |              |                                |
| <b>Advanced Diploma Level – Stage I</b>       |   |                       |             |              |                                |
| <i>Semester 4</i>                             |   |                       |             |              |                                |
| MN2001  | Management I                                | CC                    | 4           |              | 60                             |
| ME2002  | Fluid Dynamics                              | FC                    | 4           |              | 60                             |
| ME2003  | Design of Machine Elements                  | FC                    | 4           |              | 60                             |
| ME2004  | Manufacturing Systems                       | FC                    | 4           |              | 60                             |
| ME2080  | Industrial Training I                       | FC                    |             | 3            | (12 wks)                       |
| <b>Total Credits for Semester 4</b>           |   |                       | <b>16</b>   | <b>3</b>     |                                |
| <b>Advanced Diploma Level – Stage II</b>      |   |                       |             |              |                                |
| <i>Semester 5</i>                             |   |                       |             |              |                                |
| MN3001  | Management II                               | CC                    | 4           |              | 60                             |
| HM3001  | Humanities and Social Science               | CC                    | 4           |              | 60                             |
| ET3050  | Industrial Electronics                      | FC                    | 2           |              | 30                             |
| ME3001  | Dynamics of Mechanical Systems              | FC                    | 4           |              | 60                             |
| ME3090  | Project I – Group                           | FC                    | 4           |              | (4 wks)                        |

|  |                                  |    |           |          |          |
|--|----------------------------------|----|-----------|----------|----------|
| <b>Total Credits for Semester 5</b>                |                                  |    | 18        |          |          |
| <b>Advanced Diploma Level – Stage II</b>           |                                  |    |           |          |          |
| <i>Semester 6</i>                                  |                                  |    |           |          |          |
| ME3002   | Fluid Machinery                  | FC | 4         |          | 60       |
| ME3003   | Applied Thermodynamics           | FC | 4         |          | 60       |
| ME3004   | Control Systems                  | FC | 4         |          | 60       |
| ME3005   | Automobile Technology            | FC | 2         |          | 30       |
| ME3080   | Industrial Training II           | FC |           | 3        | (12 wks) |
| <b>Total Credits for Semester 6</b>                |                                  |    | 14        | 3        |          |
| <b>Total credits for ADL</b>                       |                                  |    | <b>64</b> | <b>6</b> |          |
| <b>Graduate Diploma Level (GDL)</b>                |                                  |    |           |          |          |
| <i>Semester 7</i>                                  |                                  |    |           |          |          |
| MN4001   | Management III                   | FC | 4         |          | 60       |
| ME4001   | Solid Mechanics                  | FC | 4         |          | 60       |
| ME4002   | Industrial Engineering           | FC | 4         |          | 60       |
| ME4090   | Project II - individual          | FC | #         |          | #        |
| <b>Select 4 to 8 Credits* from the following:-</b> |                                  |    |           |          |          |
| ME4003   | Automobile Engineering           | FE | 4         |          | 60       |
| ME4004   | Advanced Manufacturing Systems   | FE | 4         |          | 60       |
| <b>Graduate Diploma Level</b>                      |                                  |    |           |          |          |
| <i>Semester 8</i>                                  |                                  |    |           |          |          |
| ME4010   | Product Design                   | FC | 2         |          | 30       |
| ME4090   | Project II - individual          | FC | 8         |          | (8 wks)  |
| <b>Select 4 to 8 Credits* from the following:-</b> |                                  |    |           |          |          |
| ME4005   | Mechatronics                     | FE | 4         |          | 60       |
| ME4006   | Refrigeration & Air Conditioning | FE | 4         |          | 60       |
| ME4007   | Heat and Mass Transfer           | FE | 4         |          | 60       |
| ME4008   | Energy and Environment           | FE | 2         |          | 30       |
| ME4009   | Power Plant Engineering          | FE | 2         |          | 30       |
| <b>Total Number of Credits for GDL</b>             |                                  |    | <b>34</b> |          |          |

\$ Note: Module Categories: CC – Common Compulsory, FC – Field Compulsory and FE – Field Elective

# Note: Project II is carried out for 2 Semesters (Semesters 7 and 8).

Students are continuously assessed. Final assessment is at the end of Semester 8.

\* Note: It is required to complete a total of 8 Credits out of the basket of Field Elective (FE) modules. Students are free to select modules in such a way the total credits from elective subjects add up to 12.