**Program Structure & Road Map for MS Program in Mechanical Engineering**

It is a 30 Credit hours program offered as below.

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| --- | --- |
| **Component** | **Credit Hours** |
| Core Courses | 12 |
| Electives | 12 |
| Thesis | 06 |
| Total | 30 |

Salient of the program are:

1. **Duration:** Two Years
2. **Semesters:** Four
3. **Description of Courses (Core Courses & Elective Courses)**
4. Following is a list of core courses

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| --- | --- | --- |
| **Course Code** | **Course Title** | **Credit**  **Hours** |
| ME-503 | Finite Element Methods | 3 |
| ME-605 | Modeling and Simulation | 3 |
| ME-501 | Mathematical Methods and Techniques | 3 |
| IE-631 | Research Methodology | 3 |

1. Following is a list of elective courses

|  |  |  |
| --- | --- | --- |
| Course Code | Course Title | Credit Hours |
| ME-661 | Advanced Thermodynamics | 3 |
| ME-612 | Advanced Heat Transfer | 3 |
| ME-541 | Alternative Energy | 3 |
| ME-641 | Power Plant Engineering | 3 |
| ME-521 | Control Systems Engineering | 3 |
| ME-542 | Pollution Management and Control | 3 |
| ME-551 | Maintenance Engineering | 3 |
| ME-601 | Mechanical Vibration | 3 |
| ME-502 | CAD/CAM | 3 |
| IE-612 | Production Planning & Control | 3 |
| IE-504 | Total Quality Management | 3 |
| ME-603 | Advanced Stress Analysis | 3 |
| ME-604 | Advanced Engineering Dynamics | 3 |
| EEN 501 | Energy Management | 3 |