**Syllabus to be implemented from the Academic Year 2014-15**

**M.Tech in Production Engineering**

**First Year – First Semester**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S.No** | **Sub Code** | **Subjects** | **Contact Hours / Week** | | | |
| **L** | **T** | **P** | **Total** |
| 1 | PE101 | Machining Science – I | 3 | 1 | 0 | 4 |
| 2 | PE102 | Machining Science – II | 3 | 1 | 0 | 4 |
| 3 | PE103 | Metal Forming | 3 | 1 | 0 | 4 |
| 4 | PE104 | Metrology and Computer Aided Inspection | 3 | 1 | 0 | 4 |
| **Total Theory** | | |  |  |  | 16 |
|  |  |  | **Contact Hours / Week** | | | |
| **S.No** | **Sub Code** | **Subjects** | **L** | **T** | **P** | **Total** |
| 5 | PE191 | Manufacturing Lab | 0 | 0 | 3 | 3 |
| **Total Practical** | | |  |  |  | 3 |
| **Total Semester** | | | 12 | 4 | 3 | 19 |

**First Year – Second Semester**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S.No** | **Sub Code** | **Subjects** | **Contact Hours / Week** | | | |
| **L** | **T** | **P** | **Total** |
| 1 | PE201 | Advanced Optimization Techniques | 3 | 1 | 0 | 4 |
| 2 | PE202 | Mechatronics | 3 | 1 | 0 | 4 |
| 3 | PE203 | Machine Tool Design | 3 | 1 | 0 | 4 |
| 4 | PE204 | Computer Integrated Manufacturing  Systems | 3 | 1 | 0 | 4 |
| **Total Theory** | | |  |  |  | 16 |
|  |  |  | **Contact Hours / Week** | | | |
| **S.No** | **Sub Code** | **Subjects** | **L** | **T** | **P** | **Total** |
| 5 | PE291 | CAM Lab | 0 | 0 | 3 | 3 |
| **Total Practical** | | |  |  |  | 3 |
| **Total Semester** | | | 12 | 4 | 3 | 19 |

**Second Year – Third Semester\_Production\_Engineering**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S.No** | **Sub Code** | **Subjects** | **Contact Hours / Week** | | | |
| **L** | **T** | **P** | **Total** |
| 1 | PE301 | Elective 1 | 3 | 1 | 0 | 4 |
| 2 | PE302 | Elective 2 | 3 | 1 | 0 | 4 |
| **Total Theory** | | |  |  |  | 8 |
|  |  |  | **Contact Hours / Week** | | | |
| **S.No** | **Sub Code** | **Subjects** | **L** | **T** | **P** | **Total** |
| 3 | PE391 | Seminar-I | 0 | 2 | 0 | 1 |
| 4 | PE392 | Project – Part 1  (Dissertation I + Defence of Project - I) | 0 | 0 | 18 | 4+8=12 |
| **Total Practical** | | |  |  |  | 13 |
| **Total Semester** | | |  |  |  | 21 |

**List of Electives**

***Choose any two out of six given below:***

Micro Electrical and Mechanical Systems (MEMS)

Nanotechnology

Design of Experiments

Advanced Welding Technology

Rapid Prototyping

Simulation and Modeling

**Second Year – Fourth Semester**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S.No** | **Sub Code** | **Subjects** | **Contact Hours / Week** | | | |
| **L** | **T** | **P** | **Total** |
| 1 | PE491 | Project – Part II  (Dissertation II + Defence of Project - II) | 0 | 0 | 24 | 6+18=24 |
| **Total** | | |  |  |  | 24 |