## U.P. TECHNICAL UNIVERSITY, LUCKNOW STUDY & EVALUATION SCHEME

# B. Tech. Mechanical Engineering / Production Engineering / Industrial & Production Engineering / Mechanical

& Industrial Engineering [Effective from Session 20016-17]

### YEAR IV, SEMESTER-VII

| S. No. | Subject<br>Code                     | Name of the Subject              | F  | Periods |   |                         | Evaluation Scheme |       |     |         |     |
|--------|-------------------------------------|----------------------------------|----|---------|---|-------------------------|-------------------|-------|-----|---------|-----|
|        |                                     |                                  |    | Т       |   | Sessional<br>Assessment |                   |       | ESE | Subject | Cre |
|        |                                     |                                  | L  |         | Р | CT A                    | TA                | Total |     | Total   | dit |
| THEOR  | RY SUBJECT                          | <br>                             |    |         |   |                         |                   |       |     | L       |     |
| 1      | NOE-071<br>to 074                   | Open Elective -I                 | 3  | 1       | 0 | 30                      | 20                | 50    | 100 | 150     | 4   |
| 2      | NME-701                             | CAD                              | 3  | 1       | 0 | 30                      | 20                | 50    | 100 | 150     | 4   |
| 3      | NME-702                             | Automobile Engineering           | 3  | 1       | 0 | 30                      | 20                | 50    | 100 | 150     | 4   |
| 4      | NME-031<br>to<br>NME-034            | Departmental Elective – III      | 3  | 1       | 0 | 30                      | 20                | 50    | 100 | 150     | 4   |
| 5      | NME-034<br>NME-041<br>to<br>NME-044 | Departmental Elective – IV       | 3  | 1       | 0 | 30                      | 20                | 50    | 100 | 150     | 4   |
| PRACT  | TICAL/DESI                          | GN/DRAWING                       |    | •       |   | •                       | •                 |       |     |         |     |
| 5      | NME-751                             | CAD/CAM Lab                      | 0  | 0       | 2 | 10                      | 10                | 20    | 30  | 50      | 1   |
| 6      | NME-752                             | I. C. Engine and Automobile Lab. | 0  | 0       | 2 | 10                      | 10                | 20    | 30  | 50      | 1   |
| 7      | NME-753                             | INDUSTRIAL TRG.                  | 0  | 0       | 2 | -                       | 50                | 50    | -   | 50      | 1   |
| 8      | NME-754                             | PROJECT                          | 0  | 0       | 3 | -                       | 50                | 50    | -   | 50      | 2   |
|        | GP-701                              | GP                               | -  | -       | - | -                       | -                 | 50    | -   | 50      | -   |
|        |                                     | TOTAL                            | 15 | 5       | 9 |                         |                   |       |     | 1000    | 25  |

Note- Practical Training-1 & 2 (4-weeks each) done after 4th & 6th Semesters would be evaluated in 7th semester through report and viva voce etc.

Project should be initiated in 7th semester beginning (End Semester Examination to be conducted for evaluation for 7<sup>th</sup> sem), and should be complete by the end of 8th semester with good Report and power-point Presentation etc.

### **Open Electives – I**

- NOE-071 Entrepreneurship Development
- NOE-072 Quality Management
- NOE-073 Operations Research
- NOE-074 Introduction to Biotechnology

### **Departmental Elective III**

- NME-031 Computer Aided Manufacturing
- NME-032 Project Management
- NME-033 Computational Fluid Dynamics
- NME-034 Composite materials

## **Departmental Elective IV**

- NME-041 Total Quality Management
- NME-042 Thermal Turbo Machines
- NME-043 Mechanical System Design
- NME-044 Automation and Robotics

# U.P. TECHNICAL UNIVERSITY, LUCKNOW

**STUDY & EVALUATION SCHEME** 

B. Tech. Mechanical Engineering [Effective from Session 2016-17]

#### YEAR IV, SEMESTER-VIII

| S. No. | Subject<br>Code          | Name of the Subject       | P  | Periods |    |    | valuatic               |       |     |                  |            |
|--------|--------------------------|---------------------------|----|---------|----|----|------------------------|-------|-----|------------------|------------|
|        |                          |                           | L  | Т       | Р  |    | Sessional<br>ssessment |       | ESE | Subject<br>Total | Credi<br>t |
|        |                          |                           |    |         |    | СТ | TA                     | Total |     |                  |            |
| THEOF  | RY SUBJECT               | -                         |    |         |    |    |                        |       |     |                  |            |
| 1      | NOE-081<br>to 084        | Open Elective -II         | 3  | 1       | 0  | 30 | 20                     | 50    | 100 | 150              | 4          |
| 2      | NME-801                  | Power Plant Engineering   | 3  | 1       | 0  | 30 | 20                     | 50    | 100 | 150              | 4          |
| 3      | NME-051<br>to<br>NME-055 | Departmental Elective -V  | 3  | 1       | 0  | 30 | 20                     | 50    | 100 | 150              | 4          |
| 4      | NME-061<br>to<br>NME-065 | Departmental Elective -VI | 3  | 1       | 0  | 30 | 20                     | 50    | 100 | 150              | 4          |
| PRACT  | FICAL/DESIG              | GN/DRAWING                |    |         |    |    |                        |       | •   |                  | •          |
| 5      | NME-851                  | SEMINAR                   | 0  | 0       | 3  | -  | 50                     | 50    | -   | 50               | 2          |
| 6      | NME-852                  | PROJECT                   | 0  | 0       | 12 | -  | 100                    | 100   | 200 | 300              | 7          |
| 7      | GP-801                   | GP                        | -  | -       | -  | -  | -                      | 50    | -   | 50               | -          |
|        |                          | TOTAL                     | 12 | 4       | 15 |    |                        |       |     | 1000             | 25         |

### **Open Electives – II**

NOE-081 Non Conventional Energy Resources NOE-082 Nonlinear Dynamic Systems NOE-083 Product Development NOE-084 Automation and Robotics

### **Departmental Elective V**

- NME-051 Operations Research
- NME-052 Design of Thermal Systems
- NME-053 Advance Synthesis of machines
- NME-054 Industrial Automation
- NME-055 Advance Welding Technology

### **Departmental Elective VI**

- NME-061 Experimental Stress Analysis
- NME-062 Plant Layout and Material Handling
- NME-063 Additive Manufacturing
- NME-064 Computer Aided Process Planning
- NME-065 Non Destructive Testing.