

**MECHANICAL ENGINEERING DEPARTMENT
MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY
ALLAHABAD-211004**

ELECTIVE COURSES FOR B. TECH.

Professional Electives – I (PE –I)

Sl. No.	Course Code	Name of Subject
1.	ME - 17301	Optimization Methods in Engineering
2.	ME - 17302	Dynamic Design of Mechanical systems
3.	ME - 17303	Machine tool Design (Only for Production)
4.	ME - 17304	Advanced Manufacturing Processes (Only for Mechanical)
5.	ME - 17305	Knowledge Management
6.	ME - 17306	Refrigeration and Air Conditioning (Only for Production)
7.	ME - 17307	Quality Engineering (Only for Mechanical)
8.	ME - 17308	Reverse Engineering (Only for Production)
9.	ME - 17309	Modeling and Simulation in Engineering
10.	ME - 17310	Pressure Vessel Design

Professional Electives- II (PE-II)

Sl. No.	Course Code	Name of Subject
1.	ME - 17326	Finite Element Methods in Engineering
2.	ME – 17327	Fuels Combustion and Pollution
3.	ME – 17328	Robotics
4.	ME – 17329	Advanced Welding Technology
5.	ME – 17330	Reliability Engineering
6.	ME – 17331	Non-conventional Energy Resources
7.	ME – 17332	CAD of Thermal Systems
8.	ME – 17333	Advanced Automobile Engineering
9.	ME – 17334	Concurrent Engineering
10.	ME - 17335	Noise and Vibration

Professional Electives-III (PE-III)

Sl. No.	Course Code	Name of Subject
1.	ME - 18351	Design against Fatigue and Fracture
2.	ME - 18352	Operations Research (only for Mechanical)
3.	ME - 18353	Solar Energy and its Application
4.	ME - 18354	Mechatronics
5.	ME - 18355	Composite Materials
6.	ME - 18356	Vehicle Dynamics
7.	ME - 18357	Metal Forming
8.	ME - 18358	Computer Graphics
9.	ME - 18359	Mechanical System Design (Only for Production)
10.	ME - 18360	Computer Integrated Manufacturing

Professional Electives-IV (PE-IV)

Sl. No.	Course Code	Name of Subject
1.	ME – 18376	Mechanical Vibrations
2.	ME – 18377	Precision Engineering
3.	ME – 18378	Tribology
4.	ME – 18379	Total Quality Management
5.	ME – 18380	Rapid Prototyping
6.	ME – 18381	Supply Chain Management
7.	ME – 18382	Power Plant Engineering
8.	ME – 18383	Tool Design (Only for ME)
9.	ME – 18384	Internal Combustion Engines (Only for Production)
10.	ME – 18385	Energy Management

Open Elective-I (OE-I) VII Semester

Sl. No.	Course Code	Name of Subject
1.	ME – 17501	Energy Management
2.	ME – 17502	Product Design and Development

Open Elective-II (OE-II) VIII Semester

Sl. No.	Course Code	Name of Subject
1.	ME – 18501	Energy Management
2.	ME – 18502	Product Design and Development