

**Course Structure for Two year Postgraduate Degree Course (M.Tech.) in
Production Engineering with specialization in Manufacturing Systems
Engineering**

SEMESTER-I

Theory

Manufacturing Systems & Automation	3	1	0	4
Computer Aided Design and Manufacturing	3	1	0	4
Modeling and Analysis of Manufacturing Systems	3	1	0	4
Elective-I	3	1	0	4
Elective-II	3	1	0	4

Sessional

Manufacturing Systems Lab.-I	0	0	6	4
Seminar-I	0	0	3	2
Comprehensive Viva Voce-I	0	0	3	2

Total credits	15	5	12	28
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SEMESTER-II

Theory

Laser Processing of Materials	3	1	0	4
Discrete System Simulation	3	1	0	4
Robotics and Robot Applications	3	1	0	4
Elective III	3	1	0	4
Elective IV	3	1	0	4

Sessional

Manufacturing Systems Lab.-II	0	0	6	4
Seminar II	0	0	3	2
Comprehensive Viva Voce-II	0	0	3	2

Total credits	15	5	12	28
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SEMESTER-III

Dissertation Interim Evaluation	-	-	-	10
Comprehensive Viva Voce on dissertation	-	-	-	3
Seminar on dissertation	-	-	-	2

Total credits	-	-	-	15
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SEMESTER-IV

Dissertation evaluation	-	-	-	20
Dissertation open defense	-	-	-	5

Total credits	-	-	-	25
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Grand Total - 96 Credits

Elective Subjects

Group-I (Elective-I & Elective-II)

1. Computer Aided Product Design
2. Rapid Prototyping
3. Design of Hydraulic and Pneumatic Systems
4. Finite Element Analysis in Manufacturing
5. Total Quality Systems & Engineering
6. Micro-Electro-Mechanical Systems

Group-II (Elective-III & Elective-IV)

1. Diagnostic Techniques
2. Manufacturing Information Systems
3. Mechatronics
4. Computer Integrated Manufacturing
5. Concurrent Engineering
6. Image Processing in Manufacturing