

BADDI UNIVERSITY

M.Tech. Course in Mechanical Engineering

Course Schedule

SEMESTER-I						
S. No.	Course No.	Course Title	L	T	P	Cr.
1	PAS-101	Advanced Mathematics	4	0	0	4
2	PME-101	Advanced Materials Technology	4	0	0	4
3.	PME-102	Programming in Matlab	0	0	4	2
SEMESTER-II						
S. No.	Course No.	Course Title	L	T	P	Cr.
1	PMG-101	Research Methodology	4	0	0	4
2	PME-103	Optimization techniques in Engineering	4	0	0	4
3	xxx-xxx	Elective-I	4	0	0	4
SEMESTER-III						
S. No.	Course No.	Course Title	L	T	P	Cr.
1	xxx-xxx	Elective-II	4	0	0	4
2	PME-104	Finite Element Methods in Engineering (FEM)	4	0	0	4
3	PME-105	ANSYS lab	0	0	4	2
SEMESTER-IV						
S. No.	Course No.	Course Title	L	T	P	Cr.
1	xxx-xxx	Elective-III	4	0	0	4
2.	PME-106	Instrumentation and measuring systems	4	0	0	4
	PME-107	Experimental Stress Analysis	4	0	0	4
3.	PME-108	Pre - Thesis Seminar	0	0	0	4
SEMESTER-V						
S. No.	Course No.	Course Title	L	T	P	Cr.
1.	PME-109	Dissertation	-	-	-	12

Total Credit= **60**

Note: For specialization in Thermal Engg., M/c Design or Manufacturing Engg., all the electives are to be selected from the concerned group of electives.

List of Elective Courses:

a) Thermal Engineering

Sr. No.	Course No.	Course Title
1	PME-110	Advanced Heat Transfer
2	PME-111	Refrigeration & air conditioning system design
3	PME-112	Computational Techniques
4	PME-113	Thermal power plant
5	PME-114	Design of compressors and gas turbines
6	PME-115	I.C. Engines
7	PME-116	Combustion
8	PME-117	Gas turbines and rotary compressors
9	PME-118	Advanced Thermodynamics
10	PME-119	Direct energy conversion
11	PME-120	Solar energy engineering
12	PME-121	Gas dynamics
13	PME-122	Nuclear engineering
14	PME-123	Design of steam turbines
15	PME-124	Automotive propulsion systems
16	PME-125	Advanced Automotive technology
17	PME-126	Advanced Fluid Mechanics

(b) Machine Design

Sr. No.	Course No.	Course Title
1	PME-127	Vibration Analysis & Controls
2	PME-128	Engineering Fracture Mechanics
3	PME-129	Computer aided machine design
4	PME-130	Industrial Tribology
5	PME-131	Mechatronics
6	PME-132	Machine Tool Design
7	PME-133	Automotive Design
8	PME-134	Systems Design
9	PME-135	Robotics Engineering
10	PME-136	Design of Machine frames and Housings
11	PME-137	Product design and Development
12	PME-138	Composite Materials
13	PME-139	Modeling, Simulation and Computer Applications
14	PME-140	Advanced Mechanics of Solids

c) Manufacturing Engineering

Sr. No.	Course No.	Course Title
1	PME-141	Metal Casting
2	PME-142	Metal Cutting
3	PME-143	Metal Forming
4	PME-144	Welding Technology
5	PME-145	Computer aided design and manufacturing
6	PME-146	Non Conventional Machining processes
7	PME-147	Jigs, Fixtures and Die Design
8	PME-148	Production, Planning & Control
9	PME-149	Machine Tool Design
10	PME-150	Cutting Tool Design
11	PME-151	Diagnostic Maintenance and Monitoring
12	PME-152	Advanced operations research
13	PME-153	Management of Production systems
14	PME-154	Simulation of Industrial Systems
15	PME-155	Automatic Controls
16	PME-156	Metrology and Industrial Inspection
17	PME-157	Computer aided Process Planning
18	PME-158	Methods Engineering & Ergonomics
19	PME-159	Entrepreneurship
20	PME-160	Industrial Management
21	PME-161	Quality Control & Reliability Engineering
22	PME-138	Composite Materials