

## Lecture Plan

Name of Faculty	Sachin Jasuja
Discipline	Mechatronics Engineering
Semester	8th
Subject	MT-418 Non Conventional Manufacturing
Lesson Plan Duration	15 Weeks
Work Load per week	Lecture 3

Week	Theory	
	Lecture Day	Topic
1	1	Unconventional machining processes
	2	Rapid prototyping processes, their classification
	3	considerations in process selection
2	4	Elements of process
	5	design of cutting tool
	6	metal removal mechanism
3	7	effect of parameters,
	8	economic considerations
	9	limitations and applications
4	10	surface finish
	11	Elements of process, process chemistry
	12	metal removal mechanism,
5	13	tool design, accuracy
	14	surface finish and work material characteristics
	15	economics advantages
6	16	limitations and applications
	17	Electrochemical grinding
	18	debarring and honing, Chemical machining
7	19	Principle and mechanism of metal removal
	20	generators, electrode feed control
	21	electrode material, tool electrode design
8	22	EDM wire cutting, surface finish
	23	accuracy and applications
	24	Test
9	25	Principal and metal removal mechanism of abrasive and water jet machining
	26	process variables, design of nozzle
	27	advantages, limitations and applications
10	28	Plasma arc machining, Electron beam machining

	29	laser beam machining
	30	their principles and metal removal mechanism
11	31	process parameters
	32	advantages and limitations
	33	applications
12	34	Test
	35	Laser Beam Machining Process
	36	principles
13	37	pumping processes
	38	emission types-beam control
	39	Applications Ultrasonic Machining
14	40	Process-working principles
	41	types of transducersconcentrators
	42	nodal point clamping-feed mechanism
15	43	metal removal rate
	44	process parameters, Applications
	45	Test