

SRM University
School of Mechanical Engineering
II Sem M.Tech (CAD)
ME2107- Computer Aided Manufacturing
Course Plan 2013-2014

	Chapter 1		Chapter 2		Chapter 3		Chapter 4		Chapter 5	
Instructional Objectives	Introduction of Numerical Control machine and automation		Concept of Industrial robotics		Concepts of GI, FMS, AGV's, AS / RS systems		Various planning systems and process monitoring		Control systems concepts	
Session 1	Automation	T1	Robotics-need,application	T2/T3	Technology- Part classification and coding systems	T1	CAPP-variant	T1	Transfer function	T4
Session 2	NC Systems	T1	Work Volume	T2/T3	production flow analysis	T1	Generative CAPP	T1	Block Diagram	T4
Session 3	CNC programming	T1	End effectors	T2/T3	Machine cell design	T1	MRP-I	T1	Tutorial	T4
Session 4	Manual	T1	Tutorial	T2/T3	FMS-workstation	T1	MRP-II	T1	Laplace transform	T4
Session 5	CAPP	T1	Drive systems	T2/T3	FMS-Layout	T1	Capacity planning	T1	Tutorial	T4
Session 6	APT Languages	T1	Sensors	T2/T3	Material handling systems	T1	Shop Floor control	T1	Linear systems	T4
Session 7	DNC	T1	Tutorial	T2/T3	Conveyor systems	T1	Factory Data collection systems	T1		T4
Session 8	CNC	T1	Robot Languages	T2/T3	AGV	T1	Computer process interface	T1	Optimal control	T4
Session 9	Adaptive control	T1	Robot control systems	T2/T3	AS/RS system	T1	Supervisory computer control	T1	Search Strategies	T4
Assessment	CT1		CT1		CT2		CT2		Surprise test	
Term Paper/Mini Project	Machining a Job in CNC Turing centre/Machining centre	or	Designing New task in Legokit/Designing prototype for robot component							

T4 Mikell P.Groover, "Automation production systems and computer - integrated manufacturing", Prentice Hall of India. Ltd., 1998

T2 Mikell P. Groover, "Industrial Robotics", McGraw Hill, 2nd Edition, 1989

T3 Deb. S.R., "Robotics Technology and Flexible Automation", Tata McGraw - Hill Publishing Company Limited, 1994

T1 Mikell P.Groover, "Automation production systems and computer - integrated manufacturing", Prentice Hall of India. Ltd., 2001

Signature of the faculty

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10/12/2013
Dean/Mech