

**DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY,  
UTTAR PRADESH, LUCKNOW**



**Syllabus**

**For**

**M.Tech. (COMPUTER AIDED DESIGN & MANUFACTURING)**

**(Effective from the Session: 2016-17)**

**Dr. A.P.J. Abdul Kalam Technical University, Lucknow, Uttar Pradesh**

**COURSE STRUCTURE AND EVALUATION SCHEME FOR  
M.TECH - COMPUTER AIDED DESIGN & MANUFACTURING  
(EFFECTIVE FROM THE SESSION: 2016-17)**

**Semester -I**

S. No.	Subject Code	Name of the Subject	Periods			Credit	Evaluation Scheme					Subject Total
			L	T	P		Theory			Practical		
							CT	TA	ESE	TA	ESE	
1	MTME 101	Simulation Modelling and Analysis	3	0	0	3	20	10	70	--	--	100
2	MTCM 101	Computer Aided Design	3	0	0	3	20	10	70	--	--	100
3		Departmental Elective-I	3	0	0	3	20	10	70	--	--	100
4		Departmental Elective-II	3	0	0	3	20	10	70	--	--	100
5		Research Process & Methodology	3	0	0	3	20	10	70	--	--	100
6	MTME 151	Simulation Modelling and Analysis lab	--	--	3	2	--	--	--	20	30	50
7	MTCM 151	Computer Aided Design Lab	--	--	2	1	--	--	--	20	30	50
		<b>Total</b>				18						<b>600</b>

<b>Departmental Elective – I</b>	MTCM 011	Computer Aided Inspection and Testing
	MTCM 012	Instrumentation and Experimental Methods
	MTCM 013	Advanced Automatic Control
	MTCM 014	Computer Aided Manufacturing

<b>Departmental Elective – II</b>	MTCM 021	Bearing Design
	MTCM 022	Advanced Mechanical Vibrations
	MTCM 023	Artificial Intelligence
	MTCM 024	Friction and Wear

**Semester –II**

S. No.	Subject Code	Name of the Subject	Periods			Credit	Evaluation Scheme					Subject Total
			L	T	P		Theory			Practical		
							CT	TA	ESE	TA	ESE	
1	MTCM 201	Computer Graphics & Geometric Modeling	3	0	0	3	20	10	70	--	--	100
2	MTME 202	Advanced Mechanics of Solid	3	0	0	3	20	10	70	--	--	100
3		Departmental Elective-III	3	0	0	3	20	10	70	--	--	100
4		Departmental Elective-IV	3	0	0	3	20	10	70	--	--	100
5		Elective-V	3	0	0	3	20	10	70	--	--	100
6	MTCM 251	Computer Graphics & Geometric Modeling Lab	--	--	3	2	--	--	--	20	30	50
7	MTCM 252	Seminar-I	--	--	--	1	--	--	--	50	--	50
		<b>Total</b>				18						<b>600</b>

<b>Departmental Elective – III</b>	MTME 031	Advanced Finite Element Analysis
	MTCM 031	Computer Aided Analysis Of Mechanical System
	MTCM 032	Fracture Analysis
	MTCM 033	Mechatronics

<b>Departmental Elective – IV</b>	MTME 041	Optimisation Techniques And Design Of Experiment
	MTCM 041	Dynamics Of Mechanical Systems
	MTCM 042	Advanced Machine Design
	MTCM 043	Mechanics Of Composite Material

<b>Elective – V</b>	MTME 051	Flexible Manufacturing Systems
	MTCM 051	Robotics And Control
	MTME 053	Additive Manufacturing & Tooling
	MTCM 052	Manufacturing System Analysis

### Semester – III

S. No.	Subject Code	Name of the Subject	Periods			Credit	Evaluation Scheme					Subject Total
			L	T	P		Theory			Practical		
							CT	TA	ESE	TA	ESE	
1	MTCM 352	Seminar-II	0	0	6	3	--	--	--	100	--	100
2	MTCM 351	Dissertation	0	0	30	15	--	--	--	200	300	500
		<b>Total</b>				18						<b>600</b>

### Semester – IV

S. No.	Subject Code	Name of the Subject	Periods			Credit	Evaluation Scheme					Subject Total
			L	T	P		Theory			Practical		
							CT	TA	ESE	TA	ESE	
1	MTCM 451	Dissertation (Final)	0	0	36	18	--	--	--	200	400	600
		<b>Total</b>				18						<b>600</b>