

Details of Courses for Semester-I, 2023-24 (MTech/MDes Courses)

ECE

Semester-I

Communication and Signal Processing

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instuctor	No. of Students
EC5C01	Advanced Digital Communication	3-0-2-4	ECE		
EC5C02	Time-Frequency Analysis	3-0-0-3	ECE		
EC8014	Advanced Signal Processing	3-0-0-3	ECE		

OE1 (list all electives for Sem I)

		3-0-0-3	ECE		
		3-0-0-3	ECE		

Power and Control

EC5P01	Special topics in Control system	2-0-0-2	ECE		
EC5P02	Special topics in Power Engineering	2-0-0-2	ECE		
EC5P03	Power Electronics and Drives	3-0-0-3	ECE		
MT504a	Microcontroller	1-0-2-2	MT		
MT504b	PLC	1-0-2-2	MT		

OE1 (list all electives for Sem I)

		3-0-0-3	ECE		
		3-0-0-3	ECE		

Nanoelectronics and VLSI Design

EC5N01	Physics of Semiconductor Devices	3-0-0-3	ECE		
EC5N02	Digital VLSI Design	3-0-0-3	ECE		
EC5N03	Device Fabrication Technology	3-0-2-4	ECE		

OE1 (list all electives for Sem I)

		3-0-0-3	ECE		
		3-0-0-3	ECE		

CSE

Semester-I

Course Code	Course Name	Credits:	Offered By Discipline	Instuctor	No. of Students
OE07 (Choose any one course from below elective)					
CS8016	Cloud Computing	3-0-0-3	CSE	MS	
OE3C28	Cyber Security	2-0-2-3	CSE	ND	
OE08 (Choose any one course from below elective)					
CS8018	Web Mining	3-0-0-3	CSE	ACP	
OE09 (Choose any one course from below elective)					
CS8025	Fuzzy Sets, Logic and Applications	3-0-0-3	CSE	AS	
OE10 (Choose any one course from below elective)					
CS8007	Social Network Analysis	2-0-2-3	CSE	ACP	
OE11 (Choose any one course from below elective)					
CS8004	Deep Learning and Applications	2-0-2-3	CSE	AO	

ME

Semester-I

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instuctor	No. of Students
CAD/CAM					
ME5001	Analytical Methods in Engineering	3-0-0-3	ME	SM	
ME8012	Computer Aided Geometric Design	3-0-0-3	ME	PKJ	
OE1 (list all electives for Sem I)					
ME5020	Advanced Manufacturing Processes and Technologies	3-0-0-3	ME	RS	

ME8002	Design of Experiments	3-0-0-3	ME	AM	
OE2 (list all electives for Sem I)					
OE4M74	AI and ML in Mechanical Engineering	2-0-2-3	ME	VKG+JKT	
ME8003	Sensors and Actuators	3-0-0-3	ME	MS	
ME5C2L	PG IT Workshop I	0-0-2-2	ME	AKS/DSR	
Design					
Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Students
ME5001	Analytical Methods in Engineering	3-0-0-3	ME	SM	
ME8021	Advanced Mechanics of Solid	3-0-0-3	ME	VKG	
ME5D02	Mechanical Vibrations and Condition Monitoring	3-0-2-4	ME	SDP	
OE1 (Choose any one course from below electives)					
ME8003	Sensors and Actuators	3-0-0-3	ME	MS	
ME8002	Design of Experiments	3-0-0-3	ME	AM	
OE4M74	AI and ML in Mechanical Engineering	2-0-2-3	ME	VKG/JKT	
ME5D3L	PG IT Workshop II	0-0-2-2	ME	AKS/DSR	
Manufacturing and Automation					
Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Students
ME5001	Analytical Methods in Engineering	3-0-0-3	ME	SM	
ME5M01	Manufacturing Science	3-0-0-3	ME	YTD	
OE1 (Choose any ONE course from below electives)					
ME8003	Sensors and Actuators	3-0-0-3	ME	MS	
ME5020	Advanced Manufacturing Processes and Technologies	3-0-0-3	ME	RS	
OE2 (Choose any ONE course from below electives)					
	AI and ML in Mechanical Engineering	2-0-2-3	ME	VKG/JKT	
ME8016	Biomaterials Science and Engineering	3-0-0-3	ME	HSN	
ME5M2L	PG IT Workshop III	0-0-2-2	ME	AKS/DSR	
Mechatronics					
Semester-I					
Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Students
ME5001	Analytical Methods in Engineering	3-0-0-3	ME	SM	
MT5001	CONCEPTS IN MECHANICAL ENGINEERING	3-0-0-3	MT	YTD	
	OR				
MT5002	Concepts in Electronic Device	3-0-0-3	ECE	YTD	
ME8003	Sensors and Actuators	2-0-2-3	ME	MS	
MT504a	Microcontroller	1-0-2-2	MT	VKG	
MT504b	PLC	1-0-2-2	MT	TS	
PC5001	Professional Development Course	1-0-0-1	Placement	To be given by Placement	

Master of Design					
Semester I					
Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Students
DS5001	Elements and Principle of Design	2-0-2-3	DS	AB	
	OR				
DS5002	Art & Aesthetics in Design	2-0-2-3	DS	VF	
DS5003	Ergonomics for Industrial Design	2-0-2-3	DS	SP	
DS5004	Product Design-I	2-0-2-3	DS	PT	
DS5005	Visual Design I	2-0-2-3	DS	TSG	
DS5006	Design Workshop-I	2-0-2-3	DS	VF	

PC5001	Professional Development Course	1-0-0-1	Placement	To be given by Placement	
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Semester III

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Students
DS5007	Design Project (Technically Complex project of System)	0-0-16-8	DS	GUIDE	15
	Choose any two Elective from below course				
DS5009	Product Detailing	2-0-2-3	DS	VF	
DS5010	Video and Animation Design	2-0-2-3	DS	VF	
DS5011	Advance Applied Ergonomics	2-0-2-3	DS	PM	
	OR				
DS5012	Advance Visual Ergonomics	2-0-2-3	DS	PM	
DS5014	Design Styling and Trend Forecast	2-0-2-3	DS	VF	
EMF's (Any two of the following six EMF's)					
EM592h	Medical Equipment Design	1	DS	VF	
EM592k	Product Design in Electronic	1	DS	VF	
EM5D02	Typography	1	DS	VF	
EM5D03	Photography	1	DS	VF	
EM5D04	Information Design	1	DS	VF	
EM5D05	Packaging and Branding	1	DS	VF	
DS5096	Summer Internship (compulsory)	2	DS	GUIDE	