

Details of Courses for Semester-I, 2022-23 (MTech/MDes Courses)

ECE

Semester-I

Communication and Signal Processing

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

OE1 (Choose any one course from below electives)

EC8017	Internet of Things	3-0-0-3	ECE	RKJ	
EC8016	Electromagnetics Interference and Compatibility	3-0-0-3	ECE	RP	

Power and Control

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

OE1 (Choose any one course from below electives)

EC8029	Advanced Digital Filter Design	3-0-0-3	ECE	AK	
EC8017	Internet of Things	3-0-0-3	ECE	RKJ	

Nanoelectronics and VLSI Design

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

OE1 (Choose any one course from below electives)

EC8030	CMOS Memory Design	3-0-0-3	ECE	PR	2
EC8005	Advanced Semiconductor Devices	3-0-0-3	ECE	NB	1

CSE

Semester-I

Course Code	Course Name	Credits:	Offered By Discipline	Instructor	No. of Students
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(Choose any 4 course from below electives)

ME

Semester-I

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Students
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CAD/CAM

ME5001	Analytical Methods in Engineering	3-0-0-3	ME	SM	5
ME8012	Computer Aided Geometric Design	3-0-0-3	ME	PKJ	40

OE1 (Choose any ONE course from below electives)

ME5020	Advanced Manufacturing Processes and Technologies	3-0-0-3	ME	RS	
ME8002	Design of Experiments	3-0-0-3	ME	CD	1

OE2 (Choose any ONE course from below electives)

ME8021	Advanced Mechanics of Solids	3-0-0-3	ME	SDP	41
ME8003	Sensors and Actuators	3-0-0-3	ME	MS	62
ME5C2L	PG IT Workshop I	0-0-2-2	ME	AKS	1

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	5	
ME8021	Advanced Mechanics of Solid	3-0-0-3	ME	SDP	2	
ME5D02	Mechanical Vibrations and Condition Monitoring	3-0-2-4	ME	VKG	2	
OE1 (Choose any one course from below electives)						
ME8003	Sensors and Actuators	3-0-0-3	ME	MS	61	
ME8002	Design of Experiments	3-0-0-3	ME	CD	62	
ME5D3L	PG IT Workshop II	0-0-2-2	ME	AKS	2	

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	5	
ME5M01	Manufacturing Science	3-0-0-3	ME	HS	2	
OE1 (Choose any ONE course from below electives)						
ME5027	Computational Material Science	3-0-0-3	ME	KP	2	
ME8002	Design of Experiments	3-0-0-3	ME	CD	2	
OE2 (Choose any ONE course from below electives)						
ME5024	Micro and Nano Manufacturing	3-0-0-3	ME	HS	2	
ME8003	Sensors and Actuators	3-0-0-3	ME	MS	2	
ME5M2L	PG IT Workshop III	0-0-2-2	ME	AKS	2	

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	5	
MT5001	CONCEPTS IN MECHANICAL ENGINEERING	3-0-0-3	MT	SM	1	
OR						
MT5002	Concepts in Electronic Device	3-0-0-3	ECE		1	
ME8003	Sensors and Actuators	2-0-2-3	ME	MS	2	
MT504a	Microcontroller	1-0-2-2	MT	TS	2	
MT504b	PLC	1-0-2-2	MT	VKG	2	

Master of Design

Semester I

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Students	
DS5001	Elements and Principles of design	2-0-2-3	DS	AB	10	
or						
DS5002	Art & Aesthetics in Design	2-0-2-3	DS	VF	0	
DS5003	Ergonomics for Industrial Design	2-0-2-3	DS	SP	10	
DS5004	Product Design-I	2-0-2-3	DS	VF	10	
DS5005	Visual Design I	2-0-2-3	DS	TSG	10	
DS5006	Design Workshop-I	2-0-2-3	DS	VF	10	
PC1001	Professional Development Course	1-0-0-1	Placement		33	

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	20
Choose any two Elective from below course					
DS5009	Product Detailing	2-0-2-3	DS	VF	1
DS5010	Video and Animation Design	2-0-2-3	DS	VF	12
DS5011	Advance Applied Ergonomics	2-0-2-3	DS	PM	0
OR					
DS5012	Advance Visual Ergonomics	2-0-2-3	DS	PM	17
DS5013	Sustainable Design	2-0-2-3	DS	VF	2
DS5014	Design Styling and Trend Forecast	2-0-2-3	DS	VF	8
EMF's (Any two of the following six EMF's)					
EM5D01	Medical Equipment Design	1	DS	VF	0
EM5D06	Product Design in Electronics	1	DS	VF	0
EM5D02	Typography	1	DS	VF	9
EM5D03	Photography	1	DS	VF	4
EM5D04	Information Design	1	DS	VF	12
EM5D05	Packaging and Branding	1	DS	VF	15
DS5096	Summer Internship (compulsory)	2	DS	GUIDE	20