

Details of Courses for Semester-I, 2024-25 (UG)						
B.Tech Semester-I						
Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of register students	Remarks
NS1001	Mathematics-I (4 Sections)	3-1-0-4	NS	SSL+LKB+NKM+DM		Common for all
NS1002	Engineering Mechanics (4 Sections)	2-1-2-4	NS	ACM+NRJ+NKJ+AKK		Common for all
HS1001	Effective Communications (4 Sections)	1-2-0-2	LA	MA- Batch C,D,E JAMF- Batch- A& B YTD +		Common for all
IT1001	Introduction to Programming In C 02 Batches	2-0-3-3	CSE	Mr. Aditya Sharma-Lab		only for CSE
IT1002	Introduction to Programming In Python	2-0-3-3	ECE	AV		only for ECE
IT1002	Introduction to Programming In Python (02 Batches)	2-0-3-3	ME	SKC+RP [Lab: SKC+RP]		Common for ME, SM and DS
ES1002	Fundamentals of Electrical and Electronics Engineering	3-0-2-4	ECE	PKP+PR		only for CSE
DS1005	Engineering Graphics (02 Batches)	2-0-3-3	ME	MKT+SGM [Lab: MKT+SGM+PSK+ARR]		Common for ECE,ME,SM and DS
CS1001	Introduction to Profession (02 Batches)	1-0-0-1	CSE	VKJ		Common for CSE
EC1001	Introduction to Profession	1-0-0-1	ECE	PNK		Common for ECE
ME1001	Introduction to Profession	1-0-0-1	ME	MZA		Common for ME
SM1001	Introduction to Profession	1-0-0-1	ME	MZA		Common for SM
B.Des Semester-I						
Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of register students	
DS1002	Design Fundamentals 1	2-0-2-3	DS	PM		Common for Design
DS1003	Design Drawing	1-0-3-2	DS	VF		Common for Design
DS1004	Representation Technique	2-0-2-3	DS	VF		Common for Design
DS1005	Engineering Graphics (02 Batches)	2-0-3-3	ME	MKT+SGM [Lab: MKT+SGM+PSK+ARR]		Common for ECE,ME,SM and DS
HS1001	Effective Communications (4 Sections)	1-2-0-2	LA	MA- Batch C,D,E JAMF- Batch- A& B		Common for all
IT1002	Introduction to Programming In Python (02 Batches)	2-0-3-3	ME	SKC+RP [Lab: SKC+RP]		Common for ME, SM and DS
DS1001	Introduction to Profession	1-0-0-1	DS	PM		Common for Design
Year Long Courses (common for B.Des. and B.Tech.)						
ES1003	Innovation Theory and Practice	1-0-2-2	IA			To be checked with IIC & PCC
PC1001	Professional Development Course	1-0-0-1	PLACEMENT			To be given by Placement
B.Tech Semester III						
Course Code	Course Name	L-T-P-C	Offered By Discipline	Pre-requisites for Elective courses	Instructor	No. of register students
NS2001	Biology for Engineers	2-0-0-2	LA			282
						For CSE only
IT2001	Data Structure in C (02 Batches)	3-0-2-4	CSE		SKM	282
						For CSE only
IT2002	Data Structure in Python	3-0-2-4	ECE		VF	141
						Common for ECE
IT2002	Data Structure in Python	3-0-2-4	ME, SM & DS		VF	177
						Common for ME, SM & DS
DC1 (Discipline Core 1)						
CS2002	Computer Organization and Architecture (02 Batches)	3-0-0-3	CSE		YTD	287
						Common for CSE
EC2002	Digital Electronics and Microprocessor Interfacing	3-0-2-4	ECE		SKJ	141
						Common for ECE
ME2002	Manufacturing Process	3-0-2-4	ME		HSN	66
						Common for ME & SM
SM2002	Manufacturing Process	3-0-2-4	SM		PT	57
						Common for ME & SM
DC2 (Discipline Core 2)						
CS2003	Database Management Systems (02 Batches)	3-0-2-4	CSE		PK	287
						Common for CSE
EC203a	Principle of Analog Communications	2-0-0-2	ECE		ST	141
						Common for ECE
EC203b	Network Theory (Analysis and Synthesis)	2-0-0-2	ECE		MSP	141
						Common for ECE
ME2003	Solid Mechanics	2-2-2-4	ME		VKG	66
						Common for ME
SM2003	Solid Mechanics + Design of Mechanical Components	3-1-2-4	SM		SDP	57
						Common for SM
DC3 (Discipline Core 3)						
CS2004	Introduction to Data Science 02 Batches	3-0-2-4	CSE		YTD	287
						Common for CSE
EC204a	Electronics Devices and Circuits	2-0-0-2	ECE		TK	141
						Common for ECE
EC204b	Instrumentation and Measurement	2-0-0-2	ECE		PS	141
						Common for ECE
ME2004	Engineering Thermodynamics	3-2-0-4	ME		PSK	66
						Common for ME
SM2004	Engineering Thermodynamics + Heat Transfer	3-1-0-4	SM		TC	57
						Common for SM
OE1 (Choose any one course from below electives)						
OE2C09	Discrete Structures	3-0-0-3	CSE	Pre-requisites is not required	AO	120
						Open for all
OE2E01	Introduction to Sensors and Actuators	3-0-0-3	ECE	Pre-requisites is not required	KD	90
						Open for all
OE2E03	Fundamentals of Signals and Systems	3-0-0-3	ECE	Pre-requisites is not required	AK	44
						Open for all
OE2M07	Operations Research	3-0-0-3	ME	Pre-requisites is not required	SKC	62
						Open for all
OE2M09	Probablistic Approaches to Machine Learning	3-0-0-3	SM	Pre-requisites is not required	SA	90
						Open for all
OE2N12	Numerical Methods for Engineers	3-0-0-3	NS	Pre-requisites is not required	MKP	78
						Open for all
OE2N13	Semiconductor Optoelectronic Devices	3-0-0-3	NS	Pre-requisites is not required	YSK	35
						Open for all
OE2D14	SCIENCE AND CULTURE - A COMPARISON	3-0-0-3	English/LA	Pre-requisites is not required	MA	90
						Open for all
IT workshop I						
IT2C01	IT workshop I	0-0-3-2	CSE		YTD	287
						Common for CSE
IT2E01	IT workshop I	0-0-3-2	ECE		AV	141
						Common for ECE
IT2M01	IT workshop I	0-0-3-2	ME		DSR	66
						Common for ME
IT2S01	IT workshop I	0-0-3-2	ME		DSR	57
						Common for SM
B.Des Semester-III						
Course Code	Course Name	L-T-P-C	Offered By Discipline	Pre-requisites for Elective courses	Instructor	No. of register students
DS2005	Studies in Form	2-0-2-3	DS		VF	57
						only for B.Des
DS2006	Industrial Design 1	2-0-2-3	DS		VF	57
						only for B.Des
DS2007	Communication Design 1	2-0-2-3	DS		TSG	57
						only for B.Des
DS2008	Design Project 1	0-0-6-3	DS		Guide	57
						only for B.Des
DS2010	Material and Processes	2-0-2-3	DS		VF	57
						only for B.Des

<b>OE1 (Choose any one course from below electives)</b>							
OE2C09	Discrete Structures	3-0-0-3	CSE	Pre-requisites is not required	AO	120	Open for all
OE2E01	Introduction to Sensors and Actuators	3-0-0-3	ECE	Pre-requisites is not required	KD	90	Open for all
OE2E03	Fundamentals of Signals and Systems	3-0-0-3	ECE	Pre-requisites is not required	AK	44	Open for all
OE2M07	Operations Research	3-0-0-3	ME	Pre-requisites is not required	SKC	62	Open for all
OE2M09	Probabilistic Approaches to Machine Learning	3-0-0-3	SM	Pre-requisites is not required	SA	90	Open for all
OE2N12	Numerical Methods for Engineers	3-0-0-3	NS	Pre-requisites is not required	MKP	77	Open for all
OE2N13	Semiconductor Optoelectronic Devices	3-0-0-3	NS	Pre-requisites is not required	YSK	35	Open for all
OE2D14	SCIENCE AND CULTURE - A COMPARISON	3-0-0-3	English/LA	Pre-requisites is not required	MA	90	Open for all
<b>Year Long Courses (common for B.Des. and B.Tech.)</b>							
PR2002	Discipline Project	0-0-0-2					Specific to Discipline
PC2002	Professional Development Course	1-0-0-1	Placement				To be given by Placement
<b>B.Tech Semester V</b>							
<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P-C</b>	<b>Offered By Discipline</b>	<b>Pre-requisites for Elective courses</b>	<b>Instructor</b>	<b>No. of register students</b>	
HS3004	Ecology & Environment Science	2-0-0-2	LA			281	CSE Only
DS3001	Engineering Design –Including Design and Fabrication Project	1-0-6-4				597	Common for all
<b>DC8 (Discipline Core 8)</b>							
CS3009	Network Security & Cryptography (02 Batches)	3-0-0-3	CSE		YTD	281	Common for CSE
EC3009	VLSI System Design (VLSI IC design, logic synthesis using VHDL)	3-0-0-3	ECE		PR	140	Common for ECE
ME3009	Design of Mechanical Components	2-2-0-3	ME		KP	57	Common for ME
SM3009	Additive and Subtractive Manufacturing Processes	2-0-2-3	SM		KP	61	Common for SM
<b>DC9 (Discipline Core 9)</b>							
CS3010	Software Engineering (02 Batches)	3-0-2-4	CSE		AG	281	Common for CSE
EC3010	Fundamentals of Electromagnetic Theory	3-0-0-3	ECE		DKV	140	Common for ECE
ME3010	Industrial Internet of Things	2-0-2-3	ME		MZA	57	Common for ME
SM3010	Computer Aided Product Development	2-0-2-3	SM		ARR	61	Common for SM
<b>DC10 (Discipline Core 10)</b>							
CS3011	Artificial Intelligence (02 Batches)	3-0-0-3	CSE		DS	281	Common for CSE
EC3011	Digital Communications	3-0-0-3	ECE		MDB	140	Common for ECE
ME3011	Heat Transfer	3-0-2-4	ME		TC	57	Common for ME
SM3011	Industrial Automation	2-0-2-3	SM		TS	61	Common for SM
<b>DC11 (Discipline Core 11)</b>							
SM3012	Advanced Cyber Physical System	2-0-2-3	ME		SKS	61	Common for SM
<b>OE3 (Choose any one course from below elective)</b>							
CS8028	Hardware Security (02 Batches)	3-0-0-3	CSE	CS2002 - Computer Organization and Architecture	VSR	254	Those who have done pre-requisites
OE3E40	Computation Genomic & Proteomic	3-0-0-3	ECE	MATLAB/C++/Python and Biology for Engineers	SNS	90	Those who have done pre-requisites
OE4E50	Detection and Estimation Theory	3-0-0-3	ECE	(OE2E02)Probability and random Process	ST	44	Those who have done pre-requisites
OE3M26	Computer-Aided Design (CAD)	3-0-0-3	ME	ME2002/SM2002	MS	13	Those who have done pre-requisites
OE4M23	Business Analytics using R	3-0-0-3	SM	ME2007/SM2007/OE2M07	SA	82	Those who have done pre-requisites
OE3N36	Probability and Statistics	3-0-0-3	NS	Only for ECE, ME & SM Discipline	BG	44	Those who have done pre-requisites
OE3D16	Visual Ergonomics	2-0-2-3	DS	DS1002- Design Fundamentals 1 and DS1006 - Design Fundamentals II	PM	58	Those who have done pre-requisites
<b>IT workshop III</b>							
IT3C01	IT workshop III	0-0-3-2	CSE		Mr. Aditya Sharma	281	
IT3E01	IT workshop III	0-0-3-2	ECE		KD	140	
IT3M01	IT workshop III	0-0-3-2	ME		AKS	57	
IT3S01	IT workshop III	0-0-3-2	ME		AKS	61	
<b>B.Des Semester-V</b>							
<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P-C</b>	<b>Offered By Discipline</b>	<b>Pre-requisites for Elective courses</b>	<b>Instructor</b>	<b>No. of register students</b>	
DS3001	Engineering Design –Including Design and Fabrication Project	1-0-6-4	Not Applicable			597	Common for all
DS3009	Service Design	2-0-2-3	DS		SP	58	
DS3010	Sustainable Design	2-0-2-3	DS		AB	58	
DS3011	Design Management	2-0-2-3	DS		VF	58	
DS3012	Design Project 4 (compulsory)	0-0-6-3	DS		GUIDE	58	
<b>OE3 (Choose any one course from below elective)</b>							
CS8028	Hardware Security (02 Batches)	3-0-0-3	CSE	CS2002 - Computer Organization and Architecture	VSR	254	Those who have done pre-requisites
OE3E40	Computation Genomic & Proteomic	3-0-0-3	ECE	MATLAB/C++/Python and Biology for Engineers	SNS	90	Those who have done pre-requisites
OE4E50	Detection and Estimation Theory	3-0-0-3	ECE	(OE2E02)Probability and random Process	ST	44	Those who have done pre-requisites
OE3M26	Computer-Aided Design (CAD)	3-0-0-3	ME	ME2002/SM2002	MS	15	Those who have done pre-requisites
OE4M23	Business Analytics using R	3-0-0-3	SM	ME2007/SM2007/OE2M07	SA	82	Those who have done pre-requisites
OE3N36	Probability and Statistics	3-0-0-3	NS	Only for ECE, ME & SM Discipline	BG	44	Those who have done pre-requisites
OE3D16	Visual Ergonomics	2-0-2-3	DS	DS1002- Design Fundamentals 1 and DS1006 - Design Fundamentals II	PM	58	Those who have done pre-requisites
<b>Year Long Courses (Commonfor B.Des. and B.Tech.)</b>							
PR3003	Optional Project	0-0-0-2					Optional specific to discipline
PC3003	Professional Development Course	1-0-0-1	Placement				Common for all
<b>B.Tech Semester VII</b>							
<b>Course Code</b>	<b>Course Name</b>	<b>L-T-P-C</b>	<b>Offered By Discipline</b>	<b>Pre-requisites for Elective courses</b>	<b>Instructor</b>	<b>No. of register students</b>	
<b>OE07 (Choose any one course from below elective)</b>							
CS8016	Cloud Computing (02 Batches)	3-0-0-3	CSE	CS2008-Computer Networks	MS	242	Those who have done pre-requisites
EC8033	Radio Frequency Integrated Circuits Design	3-0-0-3	ECE	EC3010 - Fundamentals of Electromagnetic Theory	MSP	85	Those who have done pre-requisites

EC8029	Advanced Digital Filter Design	3-0-0-3	ECE	EC2005 - Digital Signal Processing	AK	39	Those who have done pre-requisites
OE4M75	Fundamentals of Tribology & Rheology	3-0-0-3	ME	ME2003/SM2003	MKT	36	Those who have done pre-requisites
MT5003	Advance in Sensors and Actuators	3-0-0-3	MT	ME3010/SM3010	MS	52	Those who have done pre-requisites
ME5D03	Finite Element Methods for Mechanical Engineering	3-0-0-3	ME	ME2003/SM2003	SDP	15	Those who have done pre-requisites
OE08 (Choose any one course from below elective)							
CS8031	Cyber Security (02 Batches)	2-0-2-3	CSE	CS2008 - Computer Networks and CS2002 - Computer Organization and Architecture	ND	242	Those who have done pre-requisites
OE4E25	Advance Antenna Theory Design	3-0-0-3	ECE	EC3010 - Fundamentals of Electromagnetic Theory	TK	40	Those who have done pre-requisites
EC8030	CMOS Memory Design	3-0-0-3	ECE	EC2008 - Analog integrated Circuit	KD	84	Those who have done pre-requisites
OE4M76	Digital Twins in Manufacturing	3-0-0-3	SM	ME3010/SM3010	SKS	21	Those who have done pre-requisites
ME5D02	Mechanical Vibrations and Condition Monitoring	3-0-0-3	ME	ME2003/SM2003	AM	21	Those who have done pre-requisites
OE4M35	Advanced Manufacturing Processes and Technologies	3-0-0-3	ME	ME2002/SM2002	RP	61	Those who have done pre-requisites
OE09 (Choose any one course from below elective)							
CS8018	Web Mining	3-0-0-3	CSE	Pre-requisites is not required	ACP	119	Open for all
CS8013	Mobile and Wireless Networks	3-0-0-3	CSE	Pre-requisites is not required	VKJ	71	Open for all
EC8004	Pattern Recognition and Machine Learning	3-0-0-3	ECE	Pre-requisites is not required	AV	27	Open for all
OE4E69	Optical Communication	3-0-0-3	ECE	Pre-requisites is not required	DKV	47	Open for all
ME8016	Biomaterials Science and Engineering	3-0-0-3	ME	Pre-requisites is not required	HSN	90	Open for all
OE4M52	Rapid Product Development Technologies	3-0-0-3	ME	Pre-requisites is not required	PKJ	90	Open for all
OE4N77	Neno technology for Engineers	3-0-0-3	NS	Pre-requisites is not required	MKR	23	Open for all
OE10 (Choose any one course from below elective)							
CS8032	Soft Computing	3-0-0-3	CSE	Pre-requisites is not required	AS	119	Open for all
CS8004	Deep Learning and Applications	2-0-2-3	CSE	Pre-requisites is not required	AO	89	Open for all
EC8006	Photovoltaics: Fundamentals and Applications	3-0-0-3	ECE	Pre-requisites is not required	DPS	88	Open for all
OE4M22	Industrial Instrumentation & Metrology	3-0-0-3	ME	Pre-requisites is not required	CD	43	Open for all
ME8010	MEMS: Microfabrication and Application	3-0-0-3	ME	Pre-requisites is not required	MZA	38	Open for all
OE4L73	LIFE SKILLS MANAGEMENT	3-1-0-3	English/LA	Pre-requisites is not required	JAMF	90	Open for all
OE11 (Choose any one course from below elective)							
CS8007	Social Network Analysis	2-0-2-3	CSE	Pre-requisites is not required	ACP	120	Open for all
CS8025	Fuzzy Sets, Logic and Applications	3-0-0-3	CSE	Pre-requisites is not required	AS	120	Open for all
NEW	Wireless Communications	3-0-0-3	ECE	Pre-requisites is not required	MDB	46	Open for all
EC5N01	Physics of Semiconductor Devices	3-0-0-3	ECE	Pre-requisites is not required	PNK	41	Open for all
ME5C01	Computer Aided Geometric Design	3-0-0-3	ME	Pre-requisites is not required	PKJ	18	Open for all
ME8002	Design for Experiments	3-0-0-3	ME	Pre-requisites is not required	CD	45	Open for all
OE4M74	AI and ML for Engineering	3-0-0-3	SM	Pre-requisites is not required	VKG	77	Open for all
B.Des Semester-VII							
Course Code	Course Name	Credit	Offered By Discipline	Instructor			
DS4013	Design Seminar I	3	DS	GUIDE	46		
DS4014	Design Thesis II	14	DS	GUIDE	46		
Year Long Courses (Common for B.Des. and B.Tech.)							
PC4004	Professional Development Course	1-0-0-1	Placement	Common for all			

DC	Discipline Core (All students of that discipline should register for the course)
	Those who have already done the course can not take the course
<b>The Senate has decided a batch size</b>	
<b>Type</b>	<b>Batch Size (no. of Maximum students)</b>
<b>Theory</b>	125
<b>Lab (experimental)</b>	30
<b>Lab (simulations)</b>	60

Accordingly the number of batches and instructors to be decided.

<b>Elective Course Limit</b>	<b>Offer by CSE Discipline</b>	<b>120</b>
	<b>Offer by ECE Discipline</b>	<b>90</b>
	<b>Offer by ME Discipline</b>	<b>90</b>
	<b>Offer by SM Discipline</b>	<b>90</b>
	<b>Offer by DS Discipline</b>	<b>90</b>