

Details of Courses for Semester-I, 2022-23 (UG)

B.Tech Semester-I

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student (Approx.)
NS1001	Mathematics-I	3-2-0-4	NS	SL+LB+NKM+DM	502
NS1002	Engineering Mechanics	3-1-2-4	NS	MKR+AKK+ACM+YK	502
HS1001	Effective Communications	1-2-0-2	LA	MA+JAMF	568
IT1001	Introduction to Programming In C	2-0-3-3	CSE	VKJ (C)	250
IT1002	Introduction to Programming In Python	2-0-3-3	CSE	VSR (Python)	318
ES1002	Basic Electronics	3-0-2-4	ECE	BM+TK	250
DS1005	Engineering Graphics	2-0-3-3	ME	TC+YTD	252
CS1001	Introduction to Profession	1-0-0-1	CSE	AG	250
EC1001	Introduction to Profession	1-0-0-1	ECE	PKP	126
ME1001	Introduction to Profession	1-0-0-1	ME	PT	63
SM1001	Introduction to Profession	1-0-0-1	ME	PT	63

B.Des Semester-I

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student (Approx.)
DS1002	Design Fundamentals 1	2-0-2-3	DS	VF	66
DS1003	Design Drawing	1-0-3-2	DS	VF	66
DS1004	Representation Technique	2-0-2-3	DS	VF	66
HS1001	Effective Communications	1-2-0-2	LA	MA+JAMF	568
IT1002	Introduction to Programming In Python	2-0-3-3	CSE	VSR (Python)	318
DS1001	Introduction to Profession	1-0-0-1	DS	PM	66

Year Long Courses (common for B.Des. and B.Tech.)

	Innovation Theory and Practice	1-0-2-2			568
PC1001	Professional Development Course	1-0-0-1			568

B.Tech Semester III

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student (Approx.)
IT2001	Data Structure in C	2-0-2-3	CSE	SKM ©	241
IT2002	Data Structure in Python	2-0-2-3	CSE	KKB (Python)	295
DC1					
CS2002	Computer Organization and Architecture	3-0-2-4	CSE	MKB	241
EC2002	Digital Electronics and Microprocessor Interfacing	3-0-2-4	ECE	IAA	122
ME2002	Manufacturing Process	3-0-2-4	ME	MS	173
DC2					
CS2003	Database Management Systems	3-0-2-4	CSE	PK	241
EC203a	Principle of Analog Communications	2-0-2-2	ECE	MSP	122
EC203b	Network Theory (Analysis and Synthesis)	2-0-2-2	ECE	MDB	122
ME2003	Solid Mechanics	2-2-2-4	ME	MZA	59
SM2003	Solid Mechanics + Design of Mechanical Components	3-1-2-4	ME	VKG	59
DC3					
CS2004	Introduction to Data Science	3-0-2-4	CSE	AS	241
EC204a	Electronics Devices and Circuits	2-0-0-2	ECE	PS	122
EC204b	Instrumentation and Measurement	2-0-0-2	ECE	TK	122
ME2004	Engineering Thermodynamics	3-2-0-4	ME	TC	59
SM2004	Engineering Thermodynamics + Heat Transfer	3-1-0-4	ME	TS	59
OE1 (Choose any one course from below electives)					
OE2C09	Game Theory	3-0-0-3	CSE	AO	100
OE2E01	Sensors and Actuators	3-0-0-3	ECE	KD	60
OE2E02	Probability and random Process	3-0-0-3	ECE	SNS	47
EC8006	Photovoltaics: Fundamentals and Applications	3-0-0-3	ECE	DPS	33
OE2M07	Operations Research	3-0-0-3	ME	SA	52
OE2N05	Complex Analysis and Linear Algebra	3-0-0-3	NS	MKP	60
OE2D15	Design Arts and Aesthetics	2-0-2-3	DS	VF	60
OE2D11	Design Thinking	2-0-2-3	DS	PT	60
OE2D14	Science and Culture- A Comparison	3-0-0-3	LA	MA	60
NS2001	Biology for Engineers	2-0-0-2	CSE		241

IT workshop I					
IT2C01	OOPs in Java	0-0-3-2	CSE	VSR	241
IT2E01	Matlab and Simulink, Pspice	0-0-3-2	ECE	AV	122
IT2M01	drawing/drafting/modelling and kinematic/ dynamic modelling	0-0-3-2	ME	DSR	59
IT2S01	drawing/drafting/modelling and kinematic/ dynamic modelling	0-0-3-2	SM	DSR	59

B.Des Semester-III

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student (Approx.)
DS2005	Studies in Form	2-0-2-3	DS	VF	52
DS2006	Industrial Design 1	2-0-2-3	DS	VF	52
DS2007	Communication Design 1	2-0-2-3	DS	TSG	52
DS2008	Design Project 1	0-0-6-3	DS	GUIDE	52
ME2002	Manufacturing Process	3-0-2-4	ME	MS	173

OE1 (Choose any one course from below electives)

OE2C09	Game Theory	3-0-0-3	CSE	AO	100
OE2E01	Sensors and Actuators	3-0-0-3	ECE	KD	60
OE2E02	Probability and random Process	3-0-0-3	ECE	SNS	47
EC8006	Photovoltaics: Fundamentals and Applications	3-0-0-3	ECE	DPS	33
OE2M07	Operations Research	3-0-0-3	ME	SA	52
OE2N05	Complex Analysis and Linear Algebra	3-0-0-3	NS	MKP	60
OE2D15	Design Arts and Aesthetics	2-0-2-3	DS	VF	60
OE2D11	Design Thinking	2-0-2-3	DS	PT	60
OE2D14	Science and Culture- A Comparison	3-0-0-3	LA	MA	60

Year Long Courses (common for B.Des. and B.Tech.)

PR2002	Discipline Project	0-0-0-2			
PC2002	Professional Development Course	1-0-0-1	Placement	COMMON for all students	

B.Tech Semester V

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student (Approx.)
DS3001	Engineering Design –Including Design and Fabrication Project	1-0-6-4			514
DC8					
CS3009	Network Security & Cryptography	3-0-0-3	CSE	ND	249
EC3009	VLSI System Design (VLSI IC desien, logic synthesis using VHDL)	3-0-0-3	ECE	PR	122
ME3009	Design of Mechanical Components	2-2-0-3	ME	AM	53
SM3009	Additive and Subtractive Manufacturing Processes	2-0-2-3	ME	KP	36
DC9					
CS3010	Software Engineering	3-0-0-3	CSE	AG	249
EC3010	Fundamentals of Electromagnetic Theory	3-0-0-3	ECE	DKV	122
ME3010	Industrial Internet of Things	2-0-2-3	ME	MZA	53
SM3010	Computer Aided Product Development	2-0-2-3	ME	RS	36
DC10					
CS3011	Artificial Intelligence	3-0-0-3	CSE	DS	249
EC3011	Digital Communications	3-0-0-3	ECE	Atulk	122
ME3011	Heat Transfer	3-0-2-4	ME	TS	53
SM3011	Control Systems	2-0-2-3	SM	ECE Faculty/VF	36
DC11					
SM3012	Advanced Cyber Physical System	2-0-2-3	ME	VF/PT/VKG/TS	36

OE3 (Choose any one course from below elective)

OE3C35	Software Defined Networking	3-0-0-3	CSE	AVarma	100
OE3E25	VLSI Design Modeling	3-0-0-3	ECE	NB	18
OE3E40	Computation Genomic & Proteomic	3-0-0-3	ECE	SNS	41
OE4E50	Detection and Estimation Theory	3-0-0-3	ECE	MDB	54
OE3M26	Computer Aided Design	3-0-0-3	ME	PKJ	34
OE3M27	Vibration of Mechanical systems	3-0-0-3	ME	SDP	27
OE3D15	Applied Ergonomics	2-0-2-3	DS	PM	60
OE3D16	Visual Ergonomics	2-0-2-3	DS	PM	60
OE3D25	Lighting Design	2-0-2-3	DS	AB	60
OE3D26	New Media Art	2-0-2-3	DS	TS	60

IT workshop III

IT3C01	Computer Network Lab	0-0-3-2	CSE	MS	249
IT3E01	Tanner Tool (Tspice), VHDL and Verilog	0-0-3-2	ECE	KD	122
IT3M01	CATIA and Power Mill	0-0-3-2	ME	AKS	53

B.Des Semester-V

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student (Approx.)
DS3001	Engineering Design –Including Design and Fabrication Project	1-0-6-4			515
DS3009	Service Design	2-0-2-3	DS	SP	54
DS3010	Sustainable Design	2-0-2-3	DS	VF	54
DS3011	Design Management	2-0-2-3	DS	VF	54

OE3 (Choose any one course from below elective)

OE3C35	Software Defined Networking	3-0-0-3	CSE	AVarma	100
OE3E25	VLSI Design Modeling	3-0-0-3	ECE	NB	18
OE3E40	Computation Genomic & Proteomic	3-0-0-3	ECE	SNS	41
OE4E50	Detection and Estimation Theory	3-0-0-3	ECE	MDB	54
OE3M26	Computer Aided Design	3-0-0-3	ME	PKJ	34
OE3M27	Vibration of Mechanical systems	3-0-0-3	ME	SDP	27
OE3D15	Applied Ergonomics	2-0-2-3	DS	PM	60
OE3D16	Visual Ergonomics	2-0-2-3	DS	PM	60
OE3D25	Lighting Design	2-0-2-3	DS	AB	60
OE3D26	New Media Art	2-0-2-3	DS	TS	60
DS3012	Design Project 4 (compulsory)	0-0-6-3	DS		54

Year Long Courses (Common for B.Des. and B.Tech.)

PR3003	Optional Project	0-0-0-2			515
PC3003	Professional Development Course	1-0-0-1	Placement		

B.Tech Semester VII

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student (Approx.)
OE07 (Choose any one course from below elective)					
CS8016	Cloud Computing	3-0-0-3	CSE	MS	100
EC8033	Radio Frequency Integrated Circuits Design	3-0-0-3	ECE	MSP	29
OE4E69	Optical Communication	3-0-0-3	ECE	RKJ	60
ME5M01	Manufacturing Science	3-0-0-3	ME	HS	60
ME8021	Advanced Mechanics of Solids	3-0-0-3	ME	SDP	41
OE4L73	Life Skills Management	3-0-0-4	LA	JAMF	60
OE08 (Choose any one course from below elective)					
CS8018	Web Mining	3-0-0-3	CSE	ACP	100
EC8002	Advanced Engineering Electromagnetics	3-0-0-3	ECE	DKV	44
EC8029	Advanced Digital Filter Design	3-0-0-3	ECE	AK	57
OE4E71	Satellite communication	3-0-0-3	ECE	RP	60
OE4M23	Business Analytics using R	3-0-0-3	ME	SA	60
ME5D02	Mechanical Vibrations and Condition Monitoring	3-0-0-3	ME	VKG	28
OE09 (Choose any one course from below elective)					
CS8017	Intrusion Detection Systems	3-0-0-3	CSE	AVarma	100
EC8004	Pattern Recognition and Machine Learning	3-0-0-3	ECE	AV	60
EC8005	Advanced Semiconductor Devices	3-0-0-3	ECE	NB	60
ME8012	Computer Aided Geometric Design	3-0-0-3	ME	PKJ	59
ME8002	Design of Experiments	3-0-0-3	ME	CD	70
OE10 (Choose any one course from below elective)					
CS8007	Social Network Analysis	2-0-2-3	CSE	ACP	69
EC8016	Electromagnetics Interference and Compatibility	3-0-0-3	ECE	RP	57
EC8030	CMOS Memory Design	3-0-0-3	ECE	PR	48
EC8031	Digital Image Processing	3-0-0-3	ECE	IAA	54
ME8003	Sensors and Actuators	3-0-0-3	ME	MS	60
OE4M35	Advanced Manufacturing Processes and Technologies	3-0-0-3	ME	RS	60
OE11 (Choose any one course from below elective)					
CS8004	Deep Learning and Applications	3-0-0-3	CSE	AO	98
EC8017	Internet of Things	3-0-0-3	ECE	RKJ	70
EC8032	Numerical Techniques in Electromagnetics	3-0-0-3	ECE	BM	60

OE4M72	Computational Material Science	3-0-0-3	ME	KP	60
OE4M22	Industrial Instrumentation & Metrology	3-0-0-3	ME	CD	60

B.Des Semester-VII

Course Code	Course Name	Credit	Offered By Discipline	Instructor	No. of Student (Approx.)
DS4013	Design Seminar I	3	DS	GUIDE	23
DS4014	Design Thesis II	14	DS	GUIDE	23

Year Long Courses (Common for B.Des. and B.Tech.)

PC4004	Professional Development Course	1-0-0-1	Placement
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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

The Senate has decided a batch size

Type	Batch Size (no. of Maximum students)
Theory	125
Lab (experimental)	30
Lab (simulations)	60

Accordingly the number of batches and instructors to be decided.