

Details of Courses for Semester-II, 2021-22 (UG)

B.Tech Semester-II					
Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student
NS103a	ODE & PDE	2-1-2-4	NS	MKP	
NS103b	Linear Algebra	2-1-2-4	NS	NKM+BG	
NS1004	Physics II	3-1-2-4	NS	MKR+YK	
ES1002	Basic Electronics	3-0-2-4	ECE	BM+NB	
DS1005	Engineering Graphics	2-0-3-3	ME	TC+RS	
ES1003	Innovation Theory and Practice	1-0-2-2			
HS1002	Indian Culture, Ethics and Human Values	2-2-0-3	LA	JAMF+MA	
B.Des Semester-II					
Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student
DS1006	Design Fundamentals 2	3-0-0-3	DS	VF	
DS1007	Introduction to Ergonomics in Design	3-0-0-3	DS	PM	
DS1008	Software Skills	0-0-3-2	DS	VF	
ES1002	Basic Electronics	3-0-2-4	ECE	BM+NB	
DS1005	Engineering Graphics	2-0-3-3	ME	TC+RS	
ES1003	Innovation Theory and Practice	1-0-2-2			
HS1002	Indian Culture, Ethics and Human Values	2-2-0-3	LA	JAMF	
OR					
HS1002	Indian Culture, Ethics and Human Values	2-2-0-3	LA	MA	
Year Long Courses (common for B.Des. and B.Tech.)					
PC1002	Professional Development Course	1	Common		

B.Tech Semester IV					
Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student
DC4					
CS2005	Language Theory	3-0-0-3	CSE	AS	248
EC2005	Digital Signal Processing	3-0-2-4	ECE	SNS	122
ME2005	Engineering Materials and Characterization	3-0-0-3	ME	KP	89
DC5					
CS2006	Operating Systems	3-0-0-3	CSE	MKB	248
EC2006	Control Systems	3-0-2-4	ECE	SKJ	122
ME2006	Kinematics and Dynamics of Machines	3-1-2-4	ME	SM	89
DC6					
CS2007	Design & Analysis of Algorithm	3-0-0-3	CSE	SKM	248
EC207a	AI and its application	2-0-0-2	ECE	IAA	122
EC207b	Architecture of Cellular Systems	2-0-0-2	ECE	AtulK	122
ME2007	Manufacturing Technology	3-0-2-4	ME	RS	54
SM2007	Cyber Physical Production Systems	2-0-2-3	SM	VKG	35
DC7					
CS2008	Computer Network	3-0-0-3	CSE	VKJ & MS	248
EC2008	Analog Integrated Circuit	3-0-2-4	ECE	PS	122
ME2008	Fluid Mechanics and Machines	3-1-2-4	ME	TC	54
SM2008	Industrial Automation	2-0-2-3	SM	TS	35
OE2 (Choose any one course from below electives)					
OE2C01	NoSQL Databases	3-0-0-3	CSE	KKB	98
OE2C02	Discrete Structures	3-0-0-3	CSE	AO	100
OE2E03	Digital System Design	3-0-0-3	ECE	PR	59
OE2E04	Introduction to deep learning	3-0-0-3	ECE	AV	60
OE2E05	Antenna Theory and Design	3-0-0-3	ECE	MSP	20
OE2D05	Packaging Design and Branding	2-0-2-3	DS	VF	59
OE2D06	Interface Design	2-0-2-3	DS	VF	31
OE2M06	Fundamental of Robotics	3-0-0-3	ME	MS	43
OE2S09	Management concept and technology	3-0-0-3	SM	CD	44
NS2001	Biology for Engineers	2-0-0-2		VF	211
IT workshop II					
IT2C02	Embedded System Lab	0-0-2-2	CSE	ND	248
IT2E02	IT Workshop II	0-0-2-2	ECE	MSP+MDB	122
IT2M02	IT Workshop II	0-0-2-2	ME	DSR	54
IT2S02	IT Workshop II (covers contents related to solid modelling and manufacturing)	0-0-2-2	SM	DSR	35
B.Des Semester-IV					
Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student
DS2009	Design Research Including User Study	2-0-2-3	DS	PM	54
DS2010	Material and Processes	2-0-2-3	DS	VF	54
DS2011	Industrial Design 2	2-0-2-3	DS	VF	54
DS2012	Communication Design 2	0-0-6-3	DS	TSG	54

DS2013	Design Project 2	3-0-2-4	DS	GUIDE	54
OE2 (Choose any one course from below electives)					
OE2C01	NoSQL Databases	3-0-0-3	CSE	KKB	100
OE2C02	Discrete Structures	3-0-0-3	CSE	AO	100
OE2E03	Digital System Design	3-0-0-3	ECE	PR	59
OE2E04	Introduction to deep learning	3-0-0-3	ECE	AV	60
OE2E05	Antenna Theory and Design	3-0-0-3	ECE	MSP	19
OE2D05	Packaging Design and Branding	2-0-2-3	DS	VF	59
OE2D06	Interface Design	2-0-2-3	DS	VF	31
OE2M06	Fundamental of Robotics	3-0-0-3	ME	MS	43
OE2S09	Management concept and technology	3-0-0-3	SM	CD	44
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 VI					
Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student
DS3014	Fabrication Project	0-0-8-4			370
HS3004	Ecology and Environment Science	2-0-0-2			370
OE4 (Choose any one course from below electives)					
OE3C28	Cyber Security	2-0-3-3	CSE	ND	19
CS8007	Social Network Analysis	3-0-0-3	CSE	ACP	100
OE3E29	Industrial Microwave and Communication	3-0-0-3	ECE	RP	60
OE3D12	Communication Skills Management	3-0-0-3	LA	JAMF	60
OE3D20	Industrial Design	2-0-2-3	DS	VF	44
OE3M04	Computer Aided Manufacturing	3-0-0-3	ME	MS	60
OE3M27	Vibration of Mechanical systems	3-0-0-3	ME	SDP	19
OE3M31	Machine Learning	3-0-0-3	ME	SA	7
ME8017	Electric Vehicle and Mobility	3-0-0-3	ME	TS	6+2
OE5 (Choose any one course from below electives)					
CS8009	Image Processing	3-0-0-3	CSE	PK	40
CS8010	Introduction to Digital watermarking	3-0-0-3	CSE	DS	99
OE3E09	IC Fabrication	3-0-0-3	ECE	DPS	19
OE3E32	Biomedical Instrumentation	3-0-0-3	ECE	VB	60
OE3D06	Indian Philosophy and Literature in English	3-0-0-3	LA	MA	60
OE3D21	Communication Design	2-0-2-3	DS	VF	23
OE3M10	Finite Element Methods for Mechanical Engineering	3-0-0-3	ME	MZA	16
ME8016	Biomaterials Science and Engineering	3-0-0-3	ME	HSN	57+5
OE6 (Choose any one course from below electives)					
CS8011	Machine Learning	3-0-0-3	CSE	KKB	44
OE3C34	Cyber Physical Systems	3-0-0-3	CSE	AabhishekV	34
OE3E15	Information Theory and Coding	3-0-0-3	ECE	AtulK	60
OE3E35	Speech processing	3-0-0-3	ECE	AV	39
OE3D37	Application for Renewable Energy Resources in Design	2-0-2-3	DS	AB	33
OE3D39	Traditional Media	2-0-2-3	DS	VF	16
OE3M18	Maintenance and Reliability	3-0-0-3	ME	HS	49
OE3M19	IC Engine	3-0-0-3	ME	AM	42
IT workshop IV					
IT3C03	Web and mobile App development	0-0-3-2	CSE	AG	123
IT3E03	Cadence, Silvaco, Xylink, Sentaurus Tcad	0-0-3-2	ECE	KD+PS	122
IT3M03	IT Workshop	0-0-3-2	ME	AKS	110

B.Des Semester-VI					
Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student
DS3014	Fabrication Project	0-0-8-4			371
HS3004	Ecology and Environment Science	2-0-0-2			371
DS3015	Design Forecasting and Trend Research	3-0-0-3	DS	VF	23
OE4 (Choose any one course from below electives)					
OE3C28	Cyber Security	2-0-3-3	CSE	ND	19
CS8007	Social Network Analysis	3-0-0-3	CSE	ACP	100
OE3E29	Industrial Microwave and Communication	3-0-0-3	ECE	RP	60
OE3D12	Communication Skills Management	3-0-0-3	LA	JAMF	60
OE3D20	Industrial Design	2-0-2-3	DS	VF	44
OE3M04	Computer Aided Manufacturing	3-0-0-3	ME	MS	60
OE3M27	Vibration of Mechanical systems	3-0-0-3	ME	SDP	19
OE3M31	Machine Learning	3-0-0-3	ME	SA	7
ME8017	Electric Vehicle and Mobility	3-0-0-3	ME	TS	6+2
OE5 (Choose any one course from below electives)					

CS8009	Image Processing	3-0-0-3	CSE	PK	40
CS8010	Introduction to Digital watermarking	3-0-0-3	CSE	DS	99
OE3E09	IC Fabrication	3-0-0-3	ECE	DPS	19
OE3E32	Biomedical Instrumentation	3-0-0-3	ECE	VB	60
OE3D06	Indian Philosophy and Literature in English	3-0-0-3	LA	MA	60
OE3D21	Communication Design	2-0-2-3	DS	VF	23
OE3M10	Finite Element Methods for Mechanical Engineering	3-0-0-3	ME	MZA	16
ME8016	Biomaterials Science and Engineering	3-0-0-3	ME	HSN	57+5

OE6 (Choose any one course from below electives)

CS8011	Machine Learning	3-0-0-3	CSE	KKB	44
OE3C34	Cyber Physical Systems	3-0-0-3	CSE	AabhishekV	34
OE3E15	Information Theory and Coding	3-0-0-3	ECE	AtulK	60
OE3E35	Speech processing	3-0-0-3	ECE	AV	39
OE3D37	Application for Renewable Energy Resources in Design	2-0-2-3	DS	AB	33
OE3D39	Traditional Media	2-0-2-3	DS	VF	16
OE3M18	Maintenance and Reliability	3-0-0-3	ME	HS	49
OE3M19	IC Engine	3-0-0-3	ME	AM	42

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

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

B.Tech Semester VIII

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student
OE13 (Choose any one course from below elective)					
CS8013	Mobile and Wireless Network	3-0-0-3	CSE	VKJ	5+7
CS8021	Information Retrieval and Semantic Web	3-0-0-3	CSE	ACP	7+10
EC8023	Modern Radar System	3-0-0-3	ECE	TK	27+1
EC8025	Wavelet and Filter Bank	3-0-0-3	ECE	AK	11
OE4M51	Design of Mechanical Systems	3-0-0-3	ME	AM	11
OE4M65	Biomedical Engineering: Fundamentals and Applications	3-0-0-3	ME	HSN	50
OEE14 (Choose any one course from below elective)					
CS8015	Computer Vision with Deep Learning	2-0-2-3	CSE	PK	12
CS8018	Hardware Security	3-0-0-3	CSE	VSR	18
EC8021	Fundamentals of 5G and beyond 5G Mobile Network	3-0-0-3	ECE	RKJ	3+1
OE4E64	Microwave Remote Sensing	3-0-0-3	ECE	RP	31
ME8018	Fracture and Fatigue	3-0-0-3	ME	MZA	13+0+0
OE4M68	Nano finishing Science and Technology	3-0-0-3	ME	HS	31
	BTP	9			267
OR	Project-based Internship (15C)	15			9

B.Des Semester-VIII

Course Code	Course Name	Credit	Offered By Discipline	Instructor	No. of Student
DS497	Design Seminar II	2	DS	GUIDE	13
DS499	Design Thesis II	15	DS	GUIDE	13

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

EMF Course for 2019 & 2020 Batch Students

Course Code	Course Name	L-T-P-C	Coordinator	Instructor	No. of Student
EMF1	Quantum Computing and Quantum Cryptography	1	Dr. Neelam Dayal	Prof. IMAI	23
EMF2	Human-Centric Robotics/Rehabilitation Robotic	1	Dr. R. Seetharam	Prof. SHIBATA, Prof. ZHU, and Prof. Prof. Yoshioka + Prof. Yagi	23
EMF3	Smart Sensors	1			23

List of Drop course due to less number of registered students

Course Code	Course Name	L-T-P-C	Offered By Discipline	Instructor	No. of Student
ME5021	Simulation of Manufacturing Systems	3-0-0-3	ME	SA	
ME8014	NC-CNC Machine Tools and Programming	3-0-0-3	ME	PKJ	
OE2M05	Smart Manufacturing	3-0-0-3	ME	PT	
OE2S10	Controls	3-0-0-3	SM	SKJ	
OE3E30	Fibre Optics	3-0-0-3	ECE	RKJ	
OE3E33	RF and Microwave Engineering	3-0-0-3	ECE	TK	
OE4M67	Manufacturing Planning and Control	3-0-0-3	ME	CD	
EC8020	Detection and Estimation Theory	3-0-0-3	ECE	MDB	
EC8026	Application of signal and Image Processing	3-0-0-3	ECE	VB	
EC8007	Nano photonics and plasmonics	3-0-0-3	ECE	DKV	

EC8024	Neural Network and Fuzzy Logic	3-0-0-3	ECE	IAA
OE3E03	Power Electronics	3-0-0-3	ECE	PKP
OE3D38	Human Computer Interaction	2-0-2-3	DS	VF
CS8004	Deep Learning and Applications.	3-0-0-3	CSE	AO