

M. Des. (Industrial Design) Program

VIT School of Design (V-SIGN) VIT, Vellore

Curriculum & Syllabus

(2018-2019 admitted students)





VISION STATEMENT OF VELLORE INSTITUTE OF TECHNOLOGY

Transforming life through excellence in education and research.

MISSION STATEMENT OF VELLORE INSTITUTE OF TECHNOLOGY

World class Education: Excellence in education, grounded in ethics and critical thinking, for improvement of life.

Cutting edge Research: An innovation ecosystem to extend knowledge and solve critical problems.

Impactful People: Happy, accountable, caring and effective workforce and students.

Rewarding Co-creations: Active collaboration with national & international industries & universities for productivity and economic development.

Service to Society: Service to the region and world through knowledge and compassion.

VISION STATEMENT OF VIT SCHOOL OF DESIGN (V-SIGN)

To be a world renowned school for producing creative professionals in the field of Art, Design, Multimedia, and Animation.

MISSION STATEMENT OF VIT SCHOOL OF DESIGN (V-SIGN)

- To nurture industry-ready designers through holistic training in the field of Art, Design, Multimedia and Animation.
- To innovate newer methods of problem solving in the field of design using state-of-the-art research facilities.
- To produce confident & skilled professionals, trend-setters and leaders in the field of design.



M. Des Industrial Design

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

- 1. Graduates will be able to work in multicultural cross discipline teams effectively, to carryout complete Industrial Design independently or as a team.
- 2. Graduates will be able to communicate the design and other technical aspects effectively using various tools.



M. Des Industrial Design

M. Des

The Program will prepare the students to,

- 1. Work in multicultural cross discipline teams effectively, to carryout complete Industrial Design independently or as a team.
- 2. Communicate the design and other technical aspects effectively using various tools.

(PO_01)*: Having a clear understanding of the subject related concepts and of contemporary issue

(PO_02)*: Having ability to design a component or a product applying all the relevant standards and with realistic constraints, including public health, safety, culture, society and environment.

(PO_03)*: An ability to design and conduct experiments, as well as to analyse and interpret data.

(PO_04)*: Having problem-solving ability solving social issues through design.

(PO_05)*: Having a clear understanding of professional and ethical responsibility

(PO_06)*: Having creativity and design thinking capability

(PO_07)*: Having a good cognitive load management skills related to project management and finance

(PO_08)*: Having virtual expression and digital foot printing ability



(2017 - 18 Batch onwards)

		UNIVERSITY CORE					
Course	Course Code	Course Title	L	Т	Р	J	С
	ENG 5001 & ENG 5002	Technical English I and Technical English II	0	0	2	4	2
FLC	(or) FRE 5001 (or)	(or)	0	0	2	4	2
	GRE 5001	Foreign Language	2	0	0	0	2
MDE	MDE6013	Design Management and Professional Practice	2	0	0	0	2
STS	5001 & 5002	Soft skills	-	-	-	-	2
SET	5001& 5002	SET Projects	-	-	-	-	4
MDE	MDE6099	Masters Thesis	-	-	-	-	12
		Total Credits	I	1	1		22
		UNIVERSITY ELECTIVE					
S.No.	Course Code	Course Title	L	Т	Р	J	С
1		University Elective - I	-	-	-	-	3
2		University Elective - II	-	-	-	-	3
		Total Credits					6
		PROGRAMME CORE					
S.No.	Course Code	Course Title	L	Т	Р	J	С
1	MDE 5701	Form and Colour Studies	0	0	4	4	3
2	MDE 5702	Design Methodology	0	0	4	4	3
3	MDE 5703	Art, Design and Society	2	2	0	0	3



		Vellore Institute of Technology (Decument to be University moder section 3 of UBC Act, 1956)					
4	MDE 5707	Industrial Design	0	0	4	4	3
5	MDE 5705	Basic Ergonomics	2	0	2	0	3
6	MDE 5708	Computer Aided Product Design	0	0	4	4	3
		Total Credits					18
		PROGRAMME ELECTIVES					
S.No.	Course Code	Course Title	L	Т	Р	J	С
1	MDE6021	Human Factors in Design	1	2	2	0	3
2	MDE6002	Entrepreneurship and Startups	2	0	0	4	3
3	MDE6018	Medical Product Design	0	0	4	4	3
4	MDE6022	Transportation Design	0	0	4	4	3
5	MDE6003	Sustainable Product Design	0	0	4	4	3
6	MDE6023	Smart Product Design	0	0	4	4	3
7	MDE6005	Design Strategy and Innovation	2	0	0	4	3
8	MDE6006	Service Design	0	0	4	4	3
9	MDE6007	User Experience Design	0	0	4	4	3
10	MDE6008	Design Workshop	0	0	4	4	3
11	MDE6024	Interaction Design	0	0	4	4	3
12	MDE6025	DIY Design	0	0	4	4	3
13	MDE6026	Culture embedded design	0	0	4	4	3
14	MDE5004	Nature of Materials and Processes	2	2	0	0	3
15	MDE6027	New Technologies for Design	0	0	4	4	3
16	MDE6020	Product Detailing	0	0	4	4	3
17	MDE6014	Design Communication	0	0	4	4	3
18	MDE6015	Integrated Design Research	2	0	0	4	3



		Deemed to be University under section 3 of UGC Act, 1956)					
19	MDE6028	Creativity and Innovation	0	0	4	4	3
20	MDE6017	Craft, Creativity and Post-Modernism	2	0	0	4	3
		Total Credits					24

Credits Summary

University Core (UC)	22
University Elective (UE)	6
Programme Core (PC)	18
Programme Elective (PE)	24
Total Credits	70

Courses Offered

Fall (1 st year)	23
Winter (1 st year)	24
Fall (2 nd year)	11
Winter (2 nd year)	12
Total Credits	70

Benchmark Universities

- 1. IIT Bombay (IDC School of Design), India
- 2. DELFT University of Technology, The Netherlands
 - 3. Nanyang Technological University, Singapore



SYLLABUS FOR UNIVERSITY CORE COURSES



Course code		Fundamentals of Communication	on Skills	L T P J C
ENG5001				
Pre-requisite		Not cleared EPT (English Proficiency	Syllabus version	
Course Objectiv	VOC.			v. 1.0
		arn basic communication skills - Listening, Speaki	ng Reading and Wri	ting
		ly effective communication in social and academic		ung
		mprehend complex English language through lister		
			g und rouging	
Expected Cours	se Outo	come:		
		g and comprehending skills of the learners		
2.Acquire speaki	ing skil	ls to express their thoughts freely and fluently		
3.Learn strategie				
		rrect sentences in general and academic writing		
5. Develop techn	nical wi	riting skills like writing instructions, transcoding et	c.,	
	Listenin		8 hours	
Understanding C		ation		
Listening to Spec				
Listening for Spe		aformation		
Module:2 S	Speakin		4 hours	
Exchanging Info			4 nours	
		Events and Quantity		
Desentonig rieu v	rices, L	Wonts and Quantity		
Module:3 F	Readin	g	6 hours	
Identifying Infor		0		
Inferring Meanin				
Interpreting text	-			
		: Sentence	8hours	
Basic Sentence S	Structu	'e		
Connectives				
Transformation of		ences		
Synthesis of Sen	itences			
Madalas 5	Vaiting	- D'	41	
	w riting	: Discourse	4hours	
Instructions				
Paragraph Transcoding				
Tanscounig				
	Fotal I	ecture hours:	30 hours	
	Lotal L		50 110015	
Text Book(s)	1			
		heresa Clementson, and Gillie Cunningham. Face2 University Press.	jace Upper Intermed	uate Student's Book.
Reference Book		Chrycholty 11055.		
		epping Stones: A guided approach to writing senter	nces and Paraoraph	s (Second Edition)
2012, Libra			ices and i drugraphs	, second Lattion),
	•	omb & Leslie E Whitcomb, <i>Effective Interpersonal</i>	and Team Commun	ication Skills for
		John Wiley & Sons, Inc., Hoboken: New Jersey.		J~-
		Eijkman &Ena Bhattacharya, New Media Communi	cation Skills for Eng	nineers and IT
·		•	· · ·	



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	Professionals, 2012, IGI Global, Hershey		th					
4.	Judi Brownell, Listening: Attitudes, Principles and Skills, 2016, 5th Edition, Routledge:USA							
5.	John Langan, Ten Steps to Improving Col							
	Redston, Chris, Theresa Clementson, and	Gillie Cunningham.	Face2face L	Jpper Intermediate	Teacher's Book.			
6.	2013, Cambridge University Press.							
Mod	le of Evaluation: CAT / Assignment / Quiz	/ FAT / Project / Sen	inar					
List	of Challenging Experiments (Indicative)				-			
1.	Familiarizing students to adjectives through				2 hours			
	English alphabet and asking them to add a name as a prefix.	an adjective that starts	s with the fir	rst letter of their				
2.	Making students identify their peer who la	ack Pace, Clarity and	Volume du	ring presentation	4 hours			
	and respond using Symbols.							
3.	Using Picture as a tool to enhance learners speaking and writing skills							
4.	Using Music and Songs as tools to enhance pronunciation in the target language / Activities				2 hours			
	through VIT Community Radio							
5.	Making students upload their Self- introduced	uction videos in Vime	eo.com		4 hours			
6.	Brainstorming idiomatic expressions and to day conversation	making them use tho	se in to their	writings and day	4 hours			
7.	Making students Narrate events by adding their language / Activities through VIT C		ectives and	add flavor to	4 hours			
8	Identifying the root cause of stage fear in		g remedies	to make their	4 hours			
	presentation better							
9	Identifying common Spelling & Sentence conversations	errors in Letter Writ	ng and othe	r day to day	2 hours			
10	Discussing FAQ's in interviews with answ	wers so that the learne	r gets a bett	er insight in to	2 hours			
•	interviews / Activities through VIT Comr		2	c				
Tota	al Practical Hours				30 hours			
	ommended by Board of Studies	22-07-2017						
App	roved by Academic Council	No. 46	Date	24-8-2017				



			Institute of Technology University under section 3 of UGC Act, 1956)					
Course code	•	Professional and Communicati	on Skills		L		P J	С
ENG5002					0		2 0	1
Pre-requisite	e	ENG5001			Syllabu			
						v. 1	.1	
Course Obje								
		b develop effective Language and	Communication S	kills				
		s' Personal and Professional skills						
		s to create an active digital footprin	nt					
Expected Co								
		onal communication skills						
		olving and negotiation skills	oato					
		l mechanics of writing research rep blic speaking and presentation skill						
		skills and excel in a professional e						
J. Apply the	acquirea	skins and exect in a professional e	invironment					
Module:1	Person	al Interaction		2hours				
		ne's career goals						
Activity: SW								
2								
Module:2		ersonal Interaction		2 hours				
		ication with the team leader and co	olleagues at the wo	orkplace				
Activity: Role	e Plays/M	ime/Skit						
Module:3		Interaction		2 hours				
		ocial Networking, gender challeng	jes					
Activity: Cre	ating Link	tedIn profile, blogs						
Module:4	Dámm	á Wuitina		4 hours				
		é Writing ment and key skills		4 nours				
		ectronic Résumé						
Theuvity. The	pure un Li							
Module:5	Intervi	ew Skills		4 hours				
		w, Group Discussions		4 Hours				
		ew and mock group discussion						
		8 1						
Module:6	Report	Writing		4 hours				
Language and		ics of Writing		•				
Activity: Wri	iting a Rep	port						
Module:7		Skills: Note making		2hours				
Summarizing								
•		cutive Summary, Synopsis						
Module:8		reting skills		2 hours				
Interpret data		and graphs						
Activity: Tra	nscoding							
Module:9	Droson	tation Skills		4 hours				
		g Digital Tools		+ 110u15				
		tion on the given topic using approx	priate non-verbal	cues				
Module:10		em Solving Skills	Prince non verbai	4 hours				
		nflict Resolution		110015				
	0	s of a Challenging Scenario						
- 1011 / 103 · Cub		a a a chantenging sechario						



		(Deemed to be University under section 3 of UGC A			
	Total Lecture hours:		30) hours	
Tex	t Book(s)				
1.	Bhatnagar Nitin and Mamta Bhatnagar, C	ommunicative Engli	sh For Engi	neers And Professional	s, 2010,
	Dorling Kindersley (India) Pvt. Ltd.				
Ref	erence Books				
	Jon Kirkman and Christopher Turk, Effect	tive Writing: Improv	ing Scientifi	ic, Technical and Busine	255
	Communication, 2015, Routledge.				
	Diana Bairaktarova and Michele Eodice,	Creative Ways of Kn	owing in En	ngineering, 2017, Spring	ger
	International Publishing.				
	Clifford A Whitcomb & Leslie E Whitcom			Team Communication S	kills for
	Engineers, 2013, John Wiley & Sons, Inc				
	ArunPatil, Henk Eijkman &Ena Bhattach		mmunicatio	n Skills for Engineers a	nd IT
	Professionals, 2012, IGI Global, Hershey		•		
	Authors, book title, year of publication, ed	dition number, press,	place		
Mo	le of Evaluation: CAT / Assignment / Quiz	/ FAT / Project / Set	ninar		
11100			mai		
List	of Challenging Experiments (Indicative))			
1.	SWOT Analysis - Focus specially on des		s and two w	veaknesses	2 hours
2.	Role Plays/Mime/Skit Workplace Situa				4 hours
3.	Use of Social Media – Create a LinkedIn	Profile and also write	e a page or t	two on areas of interest	2 hours
4.	Prepare an Electronic Résumé and upload	the same in vimeo			2 hours
5.	Group discussion on latest topics				4 hours
6	Report Writing – Real-time reports				2 hours
7	Writing an Abstract, Executive Summary	on short scientific or	r research ai	ticles	4 hours
8	Transcoding – Interpret the given graph, c	chart or diagram			2 hours
9	Oral presentation on the given topic using	appropriate non-ver	bal cues		4 hours
10	Problem Solving Case Analysis of a Ch	allenging Scenario			4 hours
Tot	al Laboratory Hours				30 hours
100	a man and a d has D a and af Cturding	22-07-2017			
	ommended by Board of Studies	22-07-2017			



			Iniversity under section 3 of UGC Act, 1956)						
Course code	Durse code PROFESSIONAL AND COMMUNICATION SKILLS					, T	Р	J	С
ENG5002					0	0	2	0	1
Pre-requisite	e	ENG5001			Syll	abus	s vei	sio	n
						v.2	.20		
Course Obje	ectives:								
		students develop effective Langua	age and Communicat	ion Skills					
		ce students' Personal and Profession	•						
Expected Co									
1.	Students	will be able to apply the acquired s	kills and excel in a p	ofessional enviro	onment.				
Module:1	Person	al Interaction	2	hours					
-		ne's career goals							
Activity: SW			Г	_					
Module:2	Interp	ersonal Interaction	2	hours					
-		ication with the team leader and co	olleagues at the work	place					
Activity: Role Module:3				b a					
Module:3	Social	Interaction	2	hours					
		ocial Networking, gender challeng	es						
Activity: Crea	ating Linl	tedIn profile, blogs							
Module:4	Résum	é Writing	4	hours					
		ment and key skills ; Activity: Prep	are an Electronic Ré	sumé					
Module:5	Intervi	ew Skills	4	hours					
Placement/Jo	b Intervie	w, Group Discussions; Activity: M	ock Interview and m	ock group discus	sion				
Module:6	Report	Writing	4	hours					
Language and	d Mechan	ics of Writing							
Activity: Wri	ting a Re	port							
Module:7	Study	Skills: Note making	2	hours					
Summarizing	the report	t; Activity: Abstract, Executive Su	mmary, Synopsis						
Module:8		eting skills		hours					
Interpret data	in tables	and graphs	I						
Activity: Tra		-							
Module:9	Presen	tation Skills	2	hours					
Oral Presenta	tion using	Digital Tools							
Activity: Ora	l presenta	tion on the given topic using appro	priate non-verbal cue	es					
Module:10		Problem Solving Skills	4	hours					



Problem Solving & Conflict Resolution
Activity: Case Analysis of a Challenging Scenario

7 1011	vity. Cuse 7 marysis of a Chanenging Been	uno			
	Total Lecture hours:		30	hours	
Text	t Book(s)				
1.	Bhatnagar Nitin and Mamta Bhatnagar, C Dorling Kindersley (India) Pvt. Ltd.	Communicative Englis	h For Engin	eers And Pro	ofessionals, 2010,
Refe	erence Books				
1. 2. 3. 4. 5.	Clifford A Whitcomb & Leslie E Whitco Engineers, 2013, John Wiley & Sons, Inc Arun Patil, Henk Eijkman & Ena Bhattac Professionals, 2012, IGI Global, Hershey John Adair, Decision Making and Proble Jon Kirkman and Christopher Turk, Effec Communication, 2015, Routledge Diana Bairaktarova and Michele Eodice, International Publishing le of Evaluation: CAT / Assignment / Quiz	c., Hoboken: New Jers charya, New Media Co PA. m Solving Strategies, ctive Writing: Improvi Creative Ways of Kno	ey. mmunication 2010, Replik ng Scientific pwing in Eng	n Skills for E a Press, Nev , Technical d	Engineers and IT v Delhi. and Business
T • 4		、 、			
List 1.	of Challenging Experiments (Indicative SWOT Analysis – Focus specially on d		a and true		2 hours
1.	SWO1 Analysis – Focus specially on d	lescribing two strengt	is and two w	eaknesses	2 nours
2.	Role Plays/Mime/Skit Workplace Site	uations			4 hours
3.	Use of Social Media – Create a LinkedI interest	n Profile and also wri	te a page or t	two on areas	of 2 hours
4.	Prepare an Electronic Résumé and uploa	ad the same in vimeo			2 hours
5.	Group discussion on latest topics				4 hours
6.	Report Writing – Real-time reports				2 hours
7.	Writing an Abstract, Executive Summar	ry on short scientific o	or research ar	ticles	4 hours
8	Transcoding – Interpret the given graph	, chart or diagram			2 hours
9	Oral presentation on the given topic usin	ng appropriate non-ve	rbal cues		4 hours
10.	Problem Solving Case Analysis of a C	Challenging Scenario			4 hours
	l Laboratory Hours				30 hours
Reco	ommended by Board of Studies	22-07-2017			
App	roved by Academic Council	No. 46	Date	24-08-201	7



FRE1001	FRANÇAIS QUOTIDIEN	L 2	T	P	J	0
	5		0 Ilabı	0	0	2
Pre-requisite	NIL	Sy		<u>is vo</u> 1.0	ersi	JI
Course Objectiv				1.0		
v	students the necessary background to:					
1. Learn the	basics of French language and to communicate effectively in I	Frei	nch i	n th	eir	
day to day						
	inctional proficiency in listening, speaking, reading and writir					
0	culture-specific perspectives and values embedded in French	ı lar	nguag	ge.		
Expected Course						
	nts will be able to :					
ě	1 French language the daily life communicative situations		-	sona	l	
	, emphatic pronouns, salutations, negations and interrogat		IS.			
	cate effectively in French language via regular / irregular verb ate comprehension of the spoken / written language in translat		sim	nla		
sentences.	the comprehension of the spoken / written language in translat	ung	SIIII	pic		
	d and demonstrate the comprehension of some particular new	' ran	ige o	fun	seet	n
written ma		1011	.9. 0	1 411		-
5. Demonstr	ate a clear understanding of the French culture through the lan	igua	ige s	tudi	ed	
Module: 1 Exp		U			ioui	S
Les Salutations,	Les nombres (1-100), Les jours de la semaine, Les mois	s de	e l'a	nné	e, I	.e
Pronoms Sujets, I	es Pronoms Toniques, La conjugaison des verbes irréguliers-	- av	oir /	être	/ al	le
/ venir / faire etc.						
	Saluer, Se présenter, Présenter quelqu'un, Etablir des contacts	S				
	onjugaison des verbes réguliers				noui	
	les verbes réguliers, La conjugaison des verbes pronomina	aux,	, La	Né	gatio	on
•	ec 'Est-ce que ou sans Est-ce que'.					
Savoir-faire pour:	rrespondant(e), Demander des nouvelles d'une personne.					
	Vationalité du Pays, L'article (défini/ indéfini), Les préposi	itio	ng	61	loui	•
	Pays, L'article (défini/ indéfini), Les prépositions (à/en/au/					
	ntracté, Les heures en français, L'adjectif (La Couleur, L'a					
	nstratif/ L'adjectif interrogatif (quel/quelles/quelle/quelles					
		,,				
	om, L'interrogation avec Comment/ Combien / Où etc.					
adjectifs avec le r Savoir-faire pour						
adjectifs avec le r Savoir-faire pour Poser des questio Module: 4 La t	ns, Dire la date et les heures en français, raduction simple			4 ł	noui	S
adjectifs avec le r Savoir-faire pour Poser des questio Module: 4 La t La traduction sim	ns, Dire la date et les heures en français, raduction simple ple :(français-anglais / anglais –français),			4 k	ioui	S
adjectifs avec le r Savoir-faire pour Poser des questio Module: 4 La t La traduction sim Savoir-faire pour	ns, Dire la date et les heures en français, raduction simple ple :(français-anglais / anglais –français), :			4 ł	ioui	S
adjectifs avec le r Savoir-faire pour Poser des questio Module: 4 La t La traduction sim Savoir-faire pour Faire des achats,	ns, Dire la date et les heures en français, raduction simple ple :(français-anglais / anglais –français), : Comprendre un texte court, Demander et indiquer le chemin.					
adjectifs avec le r Savoir-faire pour Poser des questionModule: 4La t La traduction sime Savoir-faire pour Faire des achats, c Module: 5Module: 5L'ant	ns, Dire la date et les heures en français, raduction simple ple :(français-anglais / anglais –français), : Comprendre un texte court, Demander et indiquer le chemin. rticle Partitif, Mettez les phrases aux pluriels			5 ł	noui	•s
adjectifs avec le rSavoir-faire pourPoser des questioModule: 4La tLa traduction simSavoir-faire pourFaire des achats, 0Module: 5L'anL'article Partitif,	ns, Dire la date et les heures en français, raduction simple ple :(français-anglais / anglais –français), : Comprendre un texte court, Demander et indiquer le chemin. rticle Partitif, Mettez les phrases aux pluriels Mettez les phrases aux pluriels, Faites une phrase avec	les	mo	5 ł	noui	•s
adjectifs avec le rSavoir-faire pourPoser des questionModule: 4La tLa traduction simeSavoir-faire pourFaire des achats, orModule: 5L'an	ns, Dire la date et les heures en français, raduction simple ple :(français-anglais / anglais –français), : Comprendre un texte court, Demander et indiquer le chemin. rticle Partitif, Mettez les phrases aux pluriels Mettez les phrases aux pluriels, Faites une phrase avec ions.	les	mo	5 ł	noui	•s



	(Deemed to be University under section 3 of UGC Act, 1956)			
Répondez aux questions générales en fra	inçais, Exprimez le	es phrases données au N	Masculin ou au	
Féminin, Associez les phrases.				
Module: 6Décrivez :3 hours				
Décrivez: La Famille / La Maison / L'université / Les Loisirs / La Vie quotidienne etc.				
Module: 7 Dialogue			4 hours	
Dialogue:				
1. Décrire une personne.				
2. Des conversations à la cafeteria.				
3. Des conversations avec les memb	res de la famille			
4. Des dialogues entre les amis.				
Module: 8 Guest lecures			2 hours	
Guest lectures / Natives speakers				
Total Le	cture hours		30 hours	
Text Book(s)			·	
1. Fréquence jeunes-1, Méthode de fra	nçais, G. Capelle et	t N.Gidon, Hachette, Pa	aris, 2010.	
2. Fréquence jeunes-1, Cahier d'exerci	ces, G. Capelle et N	N.Gidon, Hachette, Pari	is, 2010.	
Reference Books				
1. CONNEXIONS 1, Méthode de fran	çais, Régine Mérieu	ux, Yves Loiseau,Les É	ditions Didier,	
2010.				
2. CONNEXIONS 1, Le cahier d'exer	cices, Régine Mérie	eux, Yves Loiseau, Les	Éditions	
Didier, 2010				
3. ALTER EGO 1, Méthode de françai				
Kızırıan, Béatrix Sampsonis, Moniq				
4. ALTER EGO 1, Le cahier d'activité		Catherine Hugo, Béatrix	Sampsonis,	
Monique Waendendries, Hachette li				
Mode of Evaluation: CAT / Assignmen		' FAT		
Recommended by Board of Studies	26.02.2016	1		
Approved by Academic Council	$41^{\text{st}} \text{ACM}$	Date 17.06.2016		



0 1			
Course code MDE6013	DESIGN MANAGEMENT	AND PROFESSIONAL PRACTICI	E L T P J C 2 0 0 0 2
Pre-requisite			Syllabus version
110-10401510			v. 1.20
Course Objectives:	1		
Develop management	skills enabling them to engage in i	nnovative projects based on design as	a strategic asset.
Expected Course Out	tcome:		
The students will have	·,		
 Ability to demonstra Express ideas effect including ICT. Develop working re 	ate a high degree of professionalist ively and communicate informatic lationships using teamwork and le	m characterized by initiative and creati n appropriately and accurately using a adership skills ial responsibility on setting up a design	range of media
Module:1		4 hours	
Designer attributes.		7 110015	
Module:2		4 hours	
Setting up a design off	ice. Finding clients.		
Module:3		4 hours	
		7 10015	
Business corresponder	nce. Brief and briefing. Letter of co	ontract.	
Module:4		4 hours	
Professionalism and et	hics. Costing design and fee estim	ation.	
Module:5		4 hours	
Management of design	n Process, Human factor in managi	ng design / team work.	
Module:6		4 hours	
	ent tool. Design evaluation.		
Module:7		4 hours	
mount,/		7 110015	
Patent and design regi	stration laws / procedure.		
Module:8 Cont	emporary issues:	2 hours	
Contemporary discuss	ion with the artists and designers.		
Total]	Lecture hours:	30 hours	
I		I	



Text Book(s)

Brustein David and Frank Stasiowski, 'Project Management for the Design Professional', Whitney Library of Design, New York, 1982

Reference Books

1.

Oakley, Mark (Ed.), 'Design Management – A Handbook of Issues and Methods', Basil Blackwell Ltd., 1990.

Case studies by Design Management Institute, USA.

Mode of Evaluation: CAT / Assignment / Quiz / FAT / Project / Seminar

Recommended by Board of Studies	17-08-2017		
Approved by Academic Council	No. 47	Date	05-10-2017



GER1001	GRUNDSTUFE DEUTSCH	L T P J C 2 0 0 0 2
Pre-requisite	Nil	Syllabus version
I Te-requisite		1.0
Course Objectives	S:	
U	tudents the necessary background to:	
	te Proficiency in reading, writing, and speaking in basic Germa	-
•	related to profession, education centres, day-to-day activities,	-
•	family set up, workplace, market and classroom activities are	
	tudents industry oriented and make them adapt in the German	culture.
Expected Course		
The students will b		hasia appropriate in
German.	greeting people, introducing oneself and understanding l	basic expressions in
	basic grammar skills to use these in a meaning way.	
	beginner's level vocabulary	
	ences in German on a variety of topics with significant precision	on and in detail
	l comprehension of written discourse in areas of special interes	
Module: 1	comprehension of written discourse in dreas of special interes	3 hours
	eskunde, Alphabet, Personalpronomen, Verben- heissen, kom	
0 0		
Zahlen (1-100), W	V-Fragen, Aussagesätze, Nomen- Singular und Plural, der	
	V-Fragen, Aussagesätze, Nomen- Singular und Plural, der Akel)	
Zahlen (1-100), W Unbestimmter Arti Lernziel :		
Unbestimmter Arti Lernziel :	kel)	Artikel -Bestimmter-
Unbestimmter Arti Lernziel :		Artikel -Bestimmter-
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2	kel)	Artikel -Bestimmter- a 3 hours
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa	Artikel -Bestimmter- a <u>3 hours</u> eiten und die Woche,
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa erben (regelmässig /unregelmässig),das Jahr- Monate, Jahresza	Artikel -Bestimmter- a <u>3 hours</u> eiten und die Woche,
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V Hobbys, Berufe, A Lernziel:	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa erben (regelmässig /unregelmässig),das Jahr- Monate, Jahresza	Artikel -Bestimmter- a <u>3 hours</u> eiten und die Woche,
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V Hobbys, Berufe, A Lernziel: Sätze schreiben, üb Module: 3	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa erben (regelmässig /unregelmässig),das Jahr- Monate, Jahresza rtikel, Zahlen (Hundert bis eine Million), Ja-/Nein- Frage, Imp per Hobbys, Berufe erzählen, usw	Artikel -Bestimmter- a 3 hours eiten und die Woche, perativ mit "Sie" 5 hours
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V Hobbys, Berufe, A Lernziel: Sätze schreiben, üt Module: 3 Possessivpronomer	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa erben (regelmässig /unregelmässig),das Jahr- Monate, Jahreszo rtikel, Zahlen (Hundert bis eine Million), Ja-/Nein- Frage, Imp per Hobbys, Berufe erzählen, usw n, Negation, Kasus (Bestimmter- Unbestimmter Artike	Artikel -Bestimmter- a eiten und die Woche, perativ mit "Sie" 5 hours el) Trennbareverben,
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V Hobbys, Berufe, A Lernziel: Sätze schreiben, üt Module: 3 Possessivpronomer	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa erben (regelmässig /unregelmässig),das Jahr- Monate, Jahresza rtikel, Zahlen (Hundert bis eine Million), Ja-/Nein- Frage, Imp per Hobbys, Berufe erzählen, usw	Artikel -Bestimmter- a eiten und die Woche, perativ mit "Sie" 5 hours el) Trennbareverben,
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V Hobbys, Berufe, A Lernziel: Sätze schreiben, üt Module: 3 Possessivpronomer Modalverben, Uhrz Lernziel :	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa erben (regelmässig /unregelmässig),das Jahr- Monate, Jahresza rtikel, Zahlen (Hundert bis eine Million), Ja-/Nein- Frage, Imp per Hobbys, Berufe erzählen, usw n, Negation, Kasus (Bestimmter- Unbestimmter Artike zeit, Präpositionen, Lebensmittel, Getränkeund Essen, Farben,	Artikel -Bestimmter- a eiten und die Woche, perativ mit "Sie" 5 hours el) Trennbareverben,
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V Hobbys, Berufe, A Lernziel: Sätze schreiben, üb Module: 3 Possessivpronomer Modalverben, Uhrz Lernziel : Sätze mit Modalve	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa erben (regelmässig /unregelmässig),das Jahr- Monate, Jahreszo rtikel, Zahlen (Hundert bis eine Million), Ja-/Nein- Frage, Imp per Hobbys, Berufe erzählen, usw n, Negation, Kasus (Bestimmter- Unbestimmter Artike	Artikel -Bestimmter- a 3 hours eiten und die Woche, berativ mit "Sie" 5 hours el) Trennbareverben, Tiere
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V Hobbys, Berufe, A Lernziel: Sätze schreiben, üh Module: 3 Possessivpronomer Modalverben, Uhr Lernziel : Sätze mit Modalver Module: 4	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa erben (regelmässig /unregelmässig),das Jahr- Monate, Jahresze rtikel, Zahlen (Hundert bis eine Million), Ja-/Nein- Frage, Imp per Hobbys, Berufe erzählen, usw n, Negation, Kasus (Bestimmter- Unbestimmter Artike zeit, Präpositionen, Lebensmittel, Getränkeund Essen, Farben, rben, Verwendung von Artikel, Adjektiv beim Verb	Artikel -Bestimmter- a eiten und die Woche, perativ mit "Sie" 5 hours el) Trennbareverben,
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V Hobbys, Berufe, A Lernziel: Sätze schreiben, ük Module: 3 Possessivpronomer Modalverben, Uhrz Lernziel : Sätze mit Modalver Module: 4 Übersetzung: (Deu	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa erben (regelmässig /unregelmässig),das Jahr- Monate, Jahresza rtikel, Zahlen (Hundert bis eine Million), Ja-/Nein- Frage, Imp per Hobbys, Berufe erzählen, usw n, Negation, Kasus (Bestimmter- Unbestimmter Artike zeit, Präpositionen, Lebensmittel, Getränkeund Essen, Farben,	Artikel -Bestimmter- a 3 hours eiten und die Woche, berativ mit "Sie" 5 hours el) Trennbareverben, Tiere
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V Hobbys, Berufe, A Lernziel: Sätze schreiben, ühr Module: 3 Possessivpronmer Modalverben, Uhr Lernziel : Sätze mit Modalve Module: 4 Übersetzung: (Deu Lernziel :	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa erben (regelmässig /unregelmässig),das Jahr- Monate, Jahresze rtikel, Zahlen (Hundert bis eine Million), Ja-/Nein- Frage, Imp ber Hobbys, Berufe erzählen, usw n, Negation, Kasus (Bestimmter- Unbestimmter Artike zeit, Präpositionen, Lebensmittel, Getränkeund Essen, Farben, rben, Verwendung von Artikel, Adjektiv beim Verb tsch – Englisch / Englisch – Deutsch)	Artikel -Bestimmter- a 3 hours eiten und die Woche, berativ mit "Sie" 5 hours el) Trennbareverben, Tiere
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V Hobbys, Berufe, A Lernziel: Sätze schreiben, ühr Module: 3 Possessivpronomer Modalverben, Uhr Lernziel : Sätze mit Modalver Module: 4 Übersetzung: (Deu Lernziel : Die Übung von Gr	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa erben (regelmässig /unregelmässig),das Jahr- Monate, Jahresze rtikel, Zahlen (Hundert bis eine Million), Ja-/Nein- Frage, Imp per Hobbys, Berufe erzählen, usw n, Negation, Kasus (Bestimmter- Unbestimmter Artike zeit, Präpositionen, Lebensmittel, Getränkeund Essen, Farben, rben, Verwendung von Artikel, Adjektiv beim Verb	Artikel -Bestimmter- a 3 hours eiten und die Woche, berativ mit "Sie" 5 hours el) Trennbareverben, Tiere 5 hours
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V Hobbys, Berufe, A Lernziel: Sätze schreiben, ük Module: 3 Possessivproner Modalverben, Uhrz Lernziel : Sätze mit Modalver Module: 4 Übersetzung: (Deu Lernziel : Die Übung von Gr Module: 5	kel) <u>rundlegendes Verständnis von Deutsch, Deutschland in Europa</u> erben (regelmässig /unregelmässig),das Jahr- Monate, Jahreszer rtikel, Zahlen (Hundert bis eine Million), Ja-/Nein- Frage, Imp per Hobbys, Berufe erzählen, usw n, Negation, Kasus (Bestimmter- Unbestimmter Artike zeit, Präpositionen, Lebensmittel, Getränkeund Essen, Farben, rben, Verwendung von Artikel, Adjektiv beim Verb tsch – Englisch / Englisch – Deutsch) ammatik und Wortschatz	Artikel -Bestimmter- a 3 hours eiten und die Woche, berativ mit "Sie" 5 hours el) Trennbareverben, Tiere
Unbestimmter Arti Lernziel : Sich vorstellen, Gr Module: 2 Konjugation der V Hobbys, Berufe, A Lernziel: Sätze schreiben, ük Module: 3 Possessivproner Modalverben, Uhrz Lernziel : Sätze mit Modalver Module: 4 Übersetzung: (Deu Lernziel : Die Übung von Gr Module: 5	kel) rundlegendes Verständnis von Deutsch, Deutschland in Europa erben (regelmässig /unregelmässig),das Jahr- Monate, Jahresze rtikel, Zahlen (Hundert bis eine Million), Ja-/Nein- Frage, Imp ber Hobbys, Berufe erzählen, usw n, Negation, Kasus (Bestimmter- Unbestimmter Artike zeit, Präpositionen, Lebensmittel, Getränkeund Essen, Farben, rben, Verwendung von Artikel, Adjektiv beim Verb tsch – Englisch / Englisch – Deutsch)	Artikel -Bestimmter- a 3 hours eiten und die Woche, berativ mit "Sie" 5 hours el) Trennbareverben, Tiere 5 hours



	Vellore Institute of Techno (Decuad to be University under section 3 of UGC A	ology Act, 1956)		
Übung der Sprache, Wortschatzbild	lung			
Module: 6				3 hours
Aufsätze :Die Familie, Bundesländ	ler in Deutschland, E	in Fest in I	Deutschland,	
Lernziel :				
Aktiver, selbständiger Gebrauch de	r Sprache			
Module: 7	•			4 hours
Dialoge:				
a) Gespräche mit einem/einer	Freund /Freundin.			
b) Gespräche beim Einkaufen	; in einem Supermark	kt ; in einer	Buchhandlung ;	
c) in einem Hotel - an der Rez	· •			
d) Ein Telefongespräch ; Einla	± ·			
Module: 8				2 hours
Guest Lectures / Native Speakers E	inleitung in die deust	tche Kultur	und Politik	
*	Fotal Lecture hours			30 hours
Text Book(s)				
1 Netzwerk Deutsch als Fremdsr	orache A1, Stefanie E	Dengler, Pa	ul Rusch, Helen Sch	mtiz, Tanja
1. Sieber, Klett-Langenscheidt V	erlag, München : 201	13		
Reference Books				
1. Lagune, Hartmut Aufderstrasse	e, Jutta Müller, Thom	nas Storz, 2	012.	
2. Deutsche Sprachlehre für Ausl	änder, Heinz Griesba	ach, Dora S	chulz, 2013	
3. Studio d A1, Hermann Funk, C	Christina Kuhn, Corne	eslenVerlag	g, Berlin: 2010	
4. Tangram Aktuell-I, Maria-Ros	a, SchoenherrTil, Ma	ax Hueber V	Verlag, Muenchen: 2	2012
www.goethe.de				
wirtschaftsdeutsch.de				
hueber.de				
klett-sprachen.de				
www.deutschtraning.org				
Mode of Evaluation: CAT / Assign	nment / Quiz / Semin	nar / FAT		
Recommended by Board of Studi Approved by Academic Council	es 04.03.2016 41 st ACM		17.06.2016	



Course code	SET – I		L	Т	Р	J	С
SET5001			х	х	X	х	X
Pre-requisite		Sy	ylla	bus	ve	rsio	n
				1.	10		
Course Objectives:							

The Objectives of the course are:

- 1. SET project may be of theoretical analysis, modeling & simulation, experimentation & analysis, prototype design, fabrication of new equipment, correlation and analysis of data, software development, etc. or a combination of these.
- 2. The SET project is intended to give each student the fundamental research concept. The projects will explore innovations in technology, systems and business strategy.
- **3.** It improves the research culture and gives confidence for the student to practice and write individual research article in the form of national and international conferences and journal papers.
- 4. A consciousness of the ethical aspects of research and development work needed for societal improvement
- 5. SET project is carried along with other academic courses in the institute as a part of academic curriculum

Expected Course Outcome:

On completion of this course student should be able to:

- 1. Carried out inside the university, in any research area corresponding to their curriculum
- 2. Publications in the peer reviewed journals / International Conferences will be an added advantage.
- 3. It motivates and encourage research culture in the young minds of graduate engineers
- 4. Students are made aware of plagiarism checking and they are advised not to exceed more than 12% as per the academic regulations.

Mode of assessment:
Mode of assessment.
whole of assessment.

Recommended by Board of Studies		17-	08-2017
Approved by Academic Council	No. 47	Date	05-10-2017



Course code SET – II L T P						P J	С		
SE	Т5002					X X	x x	X	
Pre-r	requisite					Syllabus version			
						1.1	0		
	urse Objectives:								
The Obje	ctives of the c	ourse are:							
1.	1. SET project may be of theoretical analysis, modeling & simulation, experimentation & analysis, prototype design, fabrication of new equipment, correlation and analysis of data, software development, etc. or a combination of these.						ре		
2.		ET project is intended to give each student the fundamental research concept. The projects will re innovations in technology, systems and business strategy.							
3.		s the research culture and gives confidence for the student to practice and write individual ticle in the form of national and international conferences and journal papers.							
4.	A conscious	iousness of the ethical aspects of research and development work needed for societal improvement					ent		
5.	SET project	is carried along with oth	er academic courses in	n the institut	e as a part of aca	ademic curr	iculun	n	
	l Course Out								
On comp	letion of this c	course student should be	able to:						
1. 2. 3. 4.	Publications It motivates a Students are	ried out inside the university, in any research area corresponding to their curriculum dications in the peer reviewed journals / International Conferences will be an added advantage. notivates and encourage research culture in the young minds of graduate engineers dents are made aware of plagiarism checking and they are advised not to exceed more than 12% as per academic regulations.				er			
Mode of 1	Evaluation: C.	AT / Assignment / Quiz	/ FAT / Project / Sem	inar					
					00.0017				
	•	Board of Studies			08-2017				
Ap	proved by Ac	ademic Council	No. 47	Date	05	5-10-2017			



a				
Course co	ode	Essentials of Business Etiquette and pro	blem solving	L T P J C
STS500	1			3 0 0 0 1
Pre-requis	site			Syllabus version
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~				
Course Objec		. 1 1 . 1.1.1.1.1.1.111		
		e students' logical thinking skills rategies of solving quantitative ability problems		
		verbal ability of the students		
		itical thinking and innovative skills		
	0.1			
Expected Cou		come: students to use relevant aptitude and appropriate lang	uses to express them	alvas
		unicate the message to the target audience clearly	uage to express thems	serves
		nts will be able to be proficient in solving quantitativ	e aptitude and verbal	ability questions of
		aminations effortlessly	• up into a una vorcan	actively questions of
		· · · · · · · · · · · · · · · · · · ·		
Module:1		ess Etiquette: Social and Cultural Etiquette and	9 h	ours
		g Company Blogs and Internal Communications		
	and P	lanning and Writing press release and meeting		
Value Mar	C.	notes		
		stoms, Language, Tradition, Building a blog, Develo and objective Communication, Two way dialogue, U		
		on, Analysis, Determining, selecting plan, Progress c		
		to the Point –summarize your subject in the first para		
cutony neur		audience,	Grupin, Doug Tituko	it fold talk to your
Module:2	Study s	kills – Time management skills	3 hours	
		nation, Scheduling, Multitasking, Monitoring, working		adhering to
Prioritization, deadlines				adhering to
deadlines	Procrasti	nation, Scheduling, Multitasking, Monitoring, working	ng under pressure and	adhering to
	Procrasti Present	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and		adhering to
deadlines	Procrasti Present Organi	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing	ng under pressure and	adhering to
deadlines Module:3	Procrasti Present Organi visual a	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing hids and Dealing with questions	ng under pressure and 7 hours	
deadlines Module:3 10 Tips to prep	Procrasti Present Organi visual a pare Pow	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing	ng under pressure and 7 hours he Elevator Test, Blue	e sky thinking,
deadlines Module:3 10 Tips to prep Introduction , I aids, Animatio	Procrasti Present Organi visual a pare Pow body and on to capt	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing hids and Dealing with questions erPoint presentation, Outlining the content, Passing to conclusion, Use of Font, Use of Color, Strategic pre ivate your audience, Design of posters, Setting out th	ng under pressure and 7 hours he Elevator Test, Blue sentation, Importance e ground rules, Dealin	e sky thinking, and types of visual
deadlines Module:3 10 Tips to prep Introduction , I aids, Animatio	Procrasti Present Organi visual a pare Pow body and on to capt	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing hids and Dealing with questions erPoint presentation, Outlining the content, Passing to conclusion, Use of Font, Use of Color, Strategic pre	ng under pressure and 7 hours he Elevator Test, Blue sentation, Importance e ground rules, Dealin	e sky thinking, and types of visual
deadlines Module:3 10 Tips to prep Introduction , 1 aids, Animatio interruptions, S	Procrasti Present Organi visual a pare Pow body and on to capt Staying in	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing nids and Dealing with questions erPoint presentation, Outlining the content, Passing t conclusion, Use of Font, Use of Color, Strategic pre ivate your audience, Design of posters, Setting out th n control of the questions, Handling difficult question	ng under pressure and 7 hours he Elevator Test, Blue sentation, Importance e ground rules, Dealin	e sky thinking, and types of visual
deadlines Module:3 10 Tips to prep Introduction , I aids, Animatio	Procrasti Present Organi visual a pare Pow body and on to capt Staying in Quanti	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing nids and Dealing with questions erPoint presentation, Outlining the content, Passing t conclusion, Use of Font, Use of Color, Strategic pre ivate your audience, Design of posters, Setting out th n control of the questions, Handling difficult question tative Ability -L1 – Number properties and	ng under pressure and 7 hours he Elevator Test, Blue sentation, Importance e ground rules, Dealin	e sky thinking, and types of visual
deadlines Module:3 10 Tips to prep Introduction , aids, Animatio interruptions, S Module:4	Procrasti Present Organi visual a pare Pow body and on to capt Staying in Quanti Averag	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing nids and Dealing with questions erPoint presentation, Outlining the content, Passing t conclusion, Use of Font, Use of Color, Strategic pre ivate your audience, Design of posters, Setting out th n control of the questions, Handling difficult question tative Ability -L1 – Number properties and ges and Progressions and Percentages and Ratios	ng under pressure and 7 hours he Elevator Test, Blue sentation, Importance e ground rules, Dealin s 11 hours	e sky thinking, and types of visual ng with
deadlines Module:3 10 Tips to prep Introduction , I aids, Animatio interruptions, S Module:4 Number of fac	Procrasti Present Organi visual a pare Pow body and on to capt Staying it Quanti Averag tors, Fac	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing hids and Dealing with questions erPoint presentation, Outlining the content, Passing t conclusion, Use of Font, Use of Color, Strategic pre ivate your audience, Design of posters, Setting out th n control of the questions, Handling difficult question tative Ability -L1 – Number properties and es and Progressions and Percentages and Ratios torials, Remainder Theorem, Unit digit position, Ten-	ng under pressure and 7 hours he Elevator Test, Blue sentation, Importance e ground rules, Dealin is 11 hours s digit position, Avera	e sky thinking, and types of visual ng with ages, Weighted
deadlines Module:3 10 Tips to prep Introduction , I aids, Animatio interruptions, S Module:4 Number of fac Average, Arith	Procrasti Present Organi visual a pare Pow body and on to capt Staying in Quanti Averag tors, Fac metic Pr	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing nids and Dealing with questions erPoint presentation, Outlining the content, Passing t conclusion, Use of Font, Use of Color, Strategic pre ivate your audience, Design of posters, Setting out th n control of the questions, Handling difficult question tative Ability -L1 – Number properties and ges and Progressions and Percentages and Ratios	ng under pressure and 7 hours he Elevator Test, Blue sentation, Importance e ground rules, Dealin is 11 hours s digit position, Avera	e sky thinking, and types of visual ng with ages, Weighted
deadlines Module:3 10 Tips to prep Introduction , I aids, Animatio interruptions, S Module:4 Number of fac Average, Arith	Procrasti Present Organi visual a pare Pow body and on to capt Staying in Quanti Averag tors, Fac metic Pr	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing hids and Dealing with questions erPoint presentation, Outlining the content, Passing t conclusion, Use of Font, Use of Color, Strategic pre ivate your audience, Design of posters, Setting out th n control of the questions, Handling difficult question tative Ability -L1 – Number properties and es and Progressions and Percentages and Ratios torials, Remainder Theorem, Unit digit position, Ten- ogression, Geometric Progression, Harmonic Progression	ng under pressure and 7 hours he Elevator Test, Blue sentation, Importance e ground rules, Dealin is 11 hours s digit position, Avera	e sky thinking, and types of visual ng with ages, Weighted
deadlines Module:3 10 Tips to prep Introduction , I aids, Animatio interruptions, S Module:4 Number of fac Average, Arith	Procrasti Present Organi visual a pare Pow body and on to capt Staying in Quanti Averag tors, Fac metic Pr s of ratio	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing hids and Dealing with questions erPoint presentation, Outlining the content, Passing t conclusion, Use of Font, Use of Color, Strategic pre ivate your audience, Design of posters, Setting out th n control of the questions, Handling difficult question tative Ability -L1 – Number properties and es and Progressions and Percentages and Ratios torials, Remainder Theorem, Unit digit position, Ten- ogression, Geometric Progression, Harmonic Progression	ng under pressure and 7 hours he Elevator Test, Blue sentation, Importance e ground rules, Dealin is 11 hours s digit position, Avera	e sky thinking, and types of visual ng with ages, Weighted
deadlines Module:3 10 Tips to prep Introduction , I aids, Animatio interruptions, S Module:4 Number of fac Average, Arith increase, Type Module:5	Procrasti Present Organi visual a pare Pow body and on to capt Staying in Quanti Averag tors, Fac metic Pr s of ratio Reason	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing ids and Dealing with questions erPoint presentation, Outlining the content, Passing to conclusion, Use of Font, Use of Color, Strategic pre- ivate your audience, Design of posters, Setting out the n control of the questions, Handling difficult question tative Ability -L1 – Number properties and es and Progressions and Percentages and Ratios torials, Remainder Theorem, Unit digit position, Ten- ogression, Geometric Progression, Harmonic Progress s and proportions ing Ability-L1 – Analytical Reasoning	ng under pressure and 7 hours he Elevator Test, Blue sentation, Importance e ground rules, Dealin is 11 hours s digit position, Avera ssion, Increase & Deca 8 hours	e sky thinking, and types of visual ng with ages, Weighted rease or successive
deadlines Module:3 10 Tips to prep Introduction , I aids, Animatio interruptions, S Module:4 Number of fac Average, Arith increase, Type Module:5	Procrasti Present Organi visual a pare Pow body and on to capt Staying in Quanti Averag tors, Fac metic Pr is of ratio Reason ment (Lin	nation, Scheduling, Multitasking, Monitoring, working tation skills – Preparing presentation and zing materials and Maintaining and preparing nids and Dealing with questions erPoint presentation, Outlining the content, Passing the conclusion, Use of Font, Use of Color, Strategic pre- ivate your audience, Design of posters, Setting out the n control of the questions, Handling difficult question tative Ability -L1 – Number properties and es and Progressions and Percentages and Ratios torials, Remainder Theorem, Unit digit position, Ten- ogression, Geometric Progression, Harmonic Progress s and proportions ing Ability-L1 – Analytical Reasoning ear and circular & Cross Variable Relationship), Blo	ng under pressure and 7 hours he Elevator Test, Blue sentation, Importance e ground rules, Dealin is 11 hours s digit position, Avera ssion, Increase & Deca 8 hours	e sky thinking, and types of visual ng with ages, Weighted rease or successive
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deadlines Module:3 10 Tips to prep Introduction , I aids, Animatio interruptions, S Module:4 Number of fac Average, Arith increase, Type Module:5 Data Arrangen Puzzle test, Se Module:6	Procrasti Present Organi visual a pare Pow body and on to capt Staying in Quanti Averag tors, Fac metic Pr s of ratio Reason ment (Lin lection D	nation, Scheduling, Multitasking, Monitoring, workin tation skills – Preparing presentation and zing materials and Maintaining and preparing hids and Dealing with questions erPoint presentation, Outlining the content, Passing t conclusion, Use of Font, Use of Color, Strategic pre ivate your audience, Design of posters, Setting out th n control of the questions, Handling difficult question tative Ability -L1 – Number properties and es and Progressions and Percentages and Ratios torials, Remainder Theorem, Unit digit position, Ten- ogression, Geometric Progression, Harmonic Progress s and proportions ing Ability-L1 – Analytical Reasoning ear and circular & Cross Variable Relationship), Blo Decision table	ng under pressure and 7 hours he Elevator Test, Blue sentation, Importance e ground rules, Dealin 11 hours s digit position, Avera ssion, Increase & Dect 8 hours od Relations, Ordering 7 hours	e sky thinking, and types of visual ng with ages, Weighted rease or successive g/ranking/grouping,



	Total Lecture hours:	45 hours		
Ref	erence Books			
1.	Kerry Patterson, Joseph Grenny, Ron McMillan, Al Switzler (2 When Stakes are High. Bangalore. McGraw-Hill Contemporary			
2.	Dale Carnegie, (1936) How to Win Friends and Influence Peop	le. New York. Gallery Books		
3.	Scott Peck. M (1978) Road Less Travelled. New York City. M.	. Scott Peck.		
4.	FACE (2016) Aptipedia Aptitude Encyclopedia. Delhi. Wiley p	oublications		
5.	ETHNUS (2013) Aptimithra. Bangalore. McGraw-Hill Educati	ion Pvt. Ltd.		
Wel	osites:			
1.	www.chalkstreet.com			
2.	www.skillsyouneed.com			
3.	www.mindtools.com			
4.	www.thebalance.com			
5.	www.eguru.ooo			
	le of Evaluation: FAT, Assignments, Projects, Case studies, Rol	le plays,		
3 As	sessments with Term End FAT (Computer Based Test)			



STS50	02	Preparing for Industry	y	L T P J C
				3 0 0 0 1
Pre-requ	isite			Syllabus version
				2.0
Course Ob	v			
	-	e students' logical thinking skills		
		trategies of solving quantitative ability pro	oblems	
		verbal ability of the students		
4. 10 e	sinance c	ritical thinking and innovative skills		
Expected C	^Y OURSO O	utcome		
		lents to simplify, evaluate, analyze and use	functions and e	xpressions to
	-	situations to be industry ready.		Apressions to
Module:1	Intervie	ew skills – Types of interview and		3 hour
		ques to face remote interviews and		
	Mock I	nterview		
~				<u> </u>
		actured interview orientation, Closed quest		
	1 1	ctive, Questions to ask/not ask during an ir		,
		Phone interview preparation, Tips to custo	mize preparation	i for personal
interview, F	Tactice re	bunds		
Module:2	Resume	e skills – Resume Template and Use of		2 hour
		-		
	nower y	verbs and Types of resume and		
		verbs and Types of resume and lizing resume		
	Custom	nizing resume		
	Custom f a standa	nizing resume ard resume, Content, color, font, Introduc		
Quiz on ty	Custom f a standa pes of re	hizing resume ard resume, Content, color, font, Introduc esume, Frequent mistakes in customizing		
Quiz on ty	Custom f a standa pes of re	nizing resume ard resume, Content, color, font, Introduc		
Quiz on ty different co	Custom f a standa pes of re mpany's i	hizing resume ard resume, Content, color, font, Introduc esume, Frequent mistakes in customizing requirement, Digitizing career portfolio		ut - Understanding
Quiz on ty	Custom f a standa pes of re mpany's r Emotio	hizing resume ard resume, Content, color, font, Introduc esume, Frequent mistakes in customizing requirement, Digitizing career portfolio nal Intelligence - L1 – Transactional		
Quiz on ty different co	Custom f a standa pes of re mpany's r Emotio Analysi	hizing resume ard resume, Content, color, font, Introduc esume, Frequent mistakes in customizing requirement, Digitizing career portfolio		ut - Understanding
Quiz on ty different co Module:3	Custom f a standa pes of re mpany's i Emotio Analysi Psychol Puzzles	hizing resume ard resume, Content, color, font, Introduc esume, Frequent mistakes in customizing requirement, Digitizing career portfolio nal Intelligence - L1 – Transactional as and Brain storming and metric Analysis and Rebus /Problem Solving	g resume, Layo	ut - Understanding
Quiz on ty different co Module:3	Custom f a standa pes of re mpany's r Emotio Analysi Psychon Puzzles n, Contr	hizing resume ard resume, Content, color, font, Introduct esume, Frequent mistakes in customizing requirement, Digitizing career portfolio nal Intelligence - L1 – Transactional as and Brain storming and metric Analysis and Rebus /Problem Solving acting, ego states, Life positions, 1	g resume, Layo	ut - Understanding 12 hour nstorming, Grou
Quiz on ty different co Module:3 Introduction Brainstormi	Custom f a standa pes of re mpany's r Emotion Analysi Psychon Puzzles n, Contr ing, Stepl	hizing resume ard resume, Content, color, font, Introduc esume, Frequent mistakes in customizing requirement, Digitizing career portfolio nal Intelligence - L1 – Transactional is and Brain storming and metric Analysis and Rebus /Problem Solving acting, ego states, Life positions, I adder Technique, Brain writing, Crawfor	g resume, Layor Individual Brai	ut - Understanding 12 hour nstorming, Group approach, Reverse
Quiz on ty different co Module:3 Introduction Brainstormi brainstormi	Custom f a standa pes of re mpany's r Emotion Analysi Psychon Puzzles n, Contr ing, Stepl ng, Star	 ard resume ard resume, Content, color, font, Introductesume, Frequent mistakes in customizing requirement, Digitizing career portfolio anal Intelligence - L1 – Transactional as and Brain storming and metric Analysis and Rebus /Problem Solving acting, ego states, Life positions, I adder Technique, Brain writing, Crawfor bursting, Charlette procedure, Round 	g resume, Layor Individual Brai	ut - Understanding 12 hour nstorming, Group approach, Reverse
Quiz on ty different co Module:3 Introduction Brainstormi brainstormi	Custom f a standa pes of re mpany's r Emotion Analysi Psychon Puzzles n, Contr ing, Stepl ng, Star	hizing resume ard resume, Content, color, font, Introduc esume, Frequent mistakes in customizing requirement, Digitizing career portfolio nal Intelligence - L1 – Transactional is and Brain storming and metric Analysis and Rebus /Problem Solving acting, ego states, Life positions, I adder Technique, Brain writing, Crawfor	g resume, Layor Individual Brai	ut - Understanding 12 hour nstorming, Group approach, Reverse
Quiz on ty different co Module:3 Introduction Brainstormi brainstormi Personality	Custom f a standa pes of re mpany's r Emotion Analysi Psychon Puzzles n, Contr ing, Stepl ng, Star Test, Mo	 ard resume ard resume, Content, color, font, Introductesume, Frequent mistakes in customizing requirement, Digitizing career portfolio anal Intelligence - L1 – Transactional and Brain storming and metric Analysis and Rebus /Problem Solving acting, ego states, Life positions, I adder Technique, Brain writing, Crawfor bursting, Charlette procedure, Round re than one answer, Unique ways 	g resume, Layor Individual Brai	ut - Understanding 12 hour nstorming, Grouj approach, Reverse rming, Skill Test
Quiz on ty different co Module:3 Introduction Brainstormi brainstormi	Custom f a standa pes of re mpany's r Emotion Analysi Psychon Puzzles n, Contr ing, Stepl ng, Star Test, Mo	hizing resume ard resume, Content, color, font, Introductesume, Frequent mistakes in customizing requirement, Digitizing career portfolio nal Intelligence - L1 – Transactional is and Brain storming and metric Analysis and Rebus /Problem Solving acting, ego states, Life positions, I adder Technique, Brain writing, Crawfor bursting, Charlette procedure, Round re than one answer, Unique ways tative Ability-L3 – Permutation-	g resume, Layor Individual Brai	ut - Understanding 12 hour nstorming, Grouj approach, Reverse
Quiz on ty different co Module:3 Introduction Brainstormi brainstormi Personality	Custom f a standa pes of re mpany's r Emotion Analysi Psychon Puzzles n, Contr ing, Stepl ng, Star Test, Mo Quantit Combin	hizing resume ard resume, Content, color, font, Introductesume, Frequent mistakes in customizing requirement, Digitizing career portfolio nal Intelligence - L1 – Transactional is and Brain storming and metric Analysis and Rebus /Problem Solving acting, ego states, Life positions, I adder Technique, Brain writing, Crawfor bursting, Charlette procedure, Round re than one answer, Unique ways tative Ability-L3 – Permutation-nations and Probability and Geometry	g resume, Layor Individual Brai	ut - Understanding 12 hours nstorming, Group approach, Reverse rming, Skill Test
Quiz on ty different co Module:3 Introduction Brainstormi brainstormi Personality	Custom f a standa pes of re mpany's i Emotio Analysi Psychon Puzzles n, Contr ing, Stepl ng, Star Test, Mo Quantit Combin and me	hizing resume ard resume, Content, color, font, Introductesume, Frequent mistakes in customizing requirement, Digitizing career portfolio nal Intelligence - L1 – Transactional is and Brain storming and metric Analysis and Rebus /Problem Solving acting, ego states, Life positions, I adder Technique, Brain writing, Crawfor bursting, Charlette procedure, Round re than one answer, Unique ways tative Ability-L3 – Permutation-nations and Probability and Geometry nsuration and Trigonometry and	g resume, Layor Individual Brai	ut - Understanding 12 hour nstorming, Grouj approach, Reverse rming, Skill Test
Quiz on ty different co Module:3 Introduction Brainstormi brainstormi Personality	Custom f a standa pes of re mpany's i Emotion Analysi Psychon Puzzles n, Contr ing, Stepl ng, Star Test, Mo Quantit Combin and me Logarit	hizing resume ard resume, Content, color, font, Introductesume, Frequent mistakes in customizing requirement, Digitizing career portfolio nal Intelligence - L1 – Transactional is and Brain storming and metric Analysis and Rebus /Problem Solving acting, ego states, Life positions, I adder Technique, Brain writing, Crawfor bursting, Charlette procedure, Round re than one answer, Unique ways tative Ability-L3 – Permutation-nations and Probability and Geometry	g resume, Layor Individual Brai	ut - Understandin 12 hour nstorming, Groug approach, Revers rming, Skill Test



Counting, Grouping, Linear Arrangement, Circular Arrangements, Conditional Probability, Independent and Dependent Events, Properties of Polygon, 2D & 3D Figures, Area & Volumes, Heights and distances, Simple trigonometric functions, Introduction to logarithms, Basic rules of logarithms, Introduction to functions, Basic rules of functions, Understanding Quadratic Equations, Rules & probabilities of Quadratic Equations, Basic concepts of Venn Diagram

Mo	odule:5	Reasoning ability-L3 – L Data Analysis and Inter	0 0	nd	7 hours
•		Binary logic, Sequential ou on-Advanced, Interpretation	1 0 11		•
IIIC	<i>aprotatio</i>		tuolos, pie entito e	our enue	5
Mo	odule:6	Verbal Ability-L3 – Con Logic	prehension and		7 hours
		mprehension, Para Jumbles			
Ass	sumption	h & Inference, (c) Strengthe	ning & Weakening a	an Argun	nent
			Total Lecture hou	irs:	45 hours
D - 4	6				
	ference			° C	
1.		etive Resume in Just One I			Letter Book: Write and Use ist Works
2.	Daniel	Flage Ph.D(2003) The Art n. Pearson	· · · · · · · · · · · · · · · · · · ·		
3.		Allen(2002) Getting Thing enguin Books.	s done : The Art of	Stress -F	Free productivity. New York
4.	FACE((2016) Aptipedia Aptitude I	Encyclopedia.Delhi.	Wiley pı	iblications
5.	ETHN	US(2013) Aptimithra. Bang	alore. McGraw-Hill	Education	on Pvt. Ltd.
We	ebsites:				
1.	www.c	halkstreet.com			
2.	www.s	killsyouneed.com			
3.	www.n	nindtools.com			
4.	www.t	hebalance.com			
~	www.e	guru.000			
5.	de of Ev	valuation: FAT, Assignmer nts with Term End FAT (C			ble plays,
Mo	ssessme	`			
Mo 3 A Rec	commen	ded by Board of Studies by Academic Council	09/06/2017 No. 45 th AC	Date	15/06/2017



Course code	Vellore Institute of Technology (bound to be University under socials J of UCC Art. 1996) MASTERS THESIS	т	Т		
Course code	MASIERS THESIS	L	T	PJ	C
MDE 6099					12
Pre-requisite		Sylla	abus	s vers	ion
•				20	
Course Objectives:					
 modeling & new product etc. or a condect. etc. etc. etc. etc. etc. etc. etc.	ty to use a holistic view to critically, independently and creatively identified issues. ity to problem-solving through plan and use adequate methods to conduct works and to evaluate this work. ity to conceptualize new product design solutions through explorations in ity to simulate and express design concepts through physical and digital new to create, analyze and critically evaluate different technical and feasible ity to critically and systematically integrate knowledge. ity to clearly present and discuss the conclusions as well as the knowledge is for these findings in written and spoken English. ity to identify the issues that must be addressed within the framework of the into consideration all relevant dimensions of sustainable development.	t, protot ware de orking o pull tog nology, y, formu qualifie form an nedium. le solutio e and arg he speci deeper i	ype velc n pr getho syst ulate ed ta d co ons. gum fic t	designer opmen oblem er the ems a e and o sks in olour. ents t hesis	n, it, ns ind deal i hat in
with comple 3. A conscious	x product design issues. ness of the ethical, social, and cultural aspects of research and developme	ent work			
 per the academic regul Must be an individua Carried out inside or Design Registration Publications in the period Plagiarism checking 12% as per the academic 	Il work outside the university, in any relevant industry or research institution. and/or Design Patent of the work done during project period will be an ad eer reviewed Journals / International Conferences will be an added value. by Turnitin is compulsory part of master's thesis. Plagiarism level should nic regulations	lded val	ue		
Module:1	6 hours				
Module:2	6 hours				
Module:3	6 hours				
	6 hours				
Module:4					



Module:5				6 hours	
Module:6				6 hours	
Module:7				6 hours	
Module:8	Contemporary issues:			6 hours	
Mode of Evaluation	n: CAT / Assignment / Quiz	/ FAT / Project / Sem	ninar		
Recommende	d by Board of Studies		17-0	08-2017	
Approved by	y Academic Council	No. 47 Date 05-10-2017			



SYLLABUS FOR

PROGRAM CORE

COURSES



C	J	Vellore Institute of Jechnology (b)consults to University under service Jetter 2000 Act, 1959)	IEC		r man	D -	~
Course co MDE500		FORM AND COLOUR STUD	IES		L T) 0	P J 4 4	C 3
INIDESU0	L			'		4 4	_ S
Pre-requis	ite			Syl	labus	versi	on
					v. 1	.0	
Course Object	ives:			I			
		s learn the elements and principles of product design.					
		s learn the perception theory, and product aesthetics					
Expected Cour	rse Out	come:					
The students w	ill have.						
		elements and principles of form.					
2. Capability to							
		plex forms in different mediums.					
		nportance of textures in a form.					
		nportance of color in a form.					
6. Generate for							
Module:1			6 hours				-
	ucture,	volume and shading techniques. Exercises on Gestalt	laws, composition	and fig	ure &	grou	nd
relationships							
Module:2			8 hours				
	2 dimer	nsional and 3 dimensional forms. 2D and 3D form tra					
ind oddenoii to		istonar and 5 annensional forms. 2D and 5D form that	instituti.				
Module:3			8 hours				
Capturing the h	uman a	nd animal form. Study of abstraction in art and sculpt	ure. Exercises on p	product e	expre	ssions	
using abstract f					1		
Module:4			8 hours				
Use of combina	ations as	a method of 3d form generation. Radii manipulation	in 2d and 3d form	l.			
Module:5			6 hours				
	surface	textures in different materials.					
1							
Module:6			10 hours				
Exercises in Co	olour - e	motions of colour, colour-wheel, and colour selection	1				
Module:7			10 hours				
Module:7	ors to ge	nerate new forms. Form, material and process relatio					
	лэ 10 ge	actue new forms. Form, material and process felatio	namp.				
Module:8	Conte	emporary issues:	4 hours				
		on with the artists and designers.					
	Total I	Lecture hours:	60 hours				
Text Book(s)							
	G Stin	nson, R.E., Wigg, P.R., Bone, R.O., and Cayton, D.L.	(2002) Art Fund	amental	$\cdot Th$	or a	nd
		w-Hill, USA.	(2002). An Fund	umentull	5. <i>111</i> 6	.or y u	iu
Reference Boo		, 0.011.					
		The Art of Color: The Subjective Experience and Objective	ective Rationale of	Color, J	ohn V	Wilev	&
		December 1997).		, .		- 5	
	,						



2.	 Elam, Kimberly, 'Geometry of Design', Studies in Proportion and Composition, Princeton Architectural Press, 2001. 								
Mode of Evaluation: CAT / Assignment / Quiz / FAT / Project / Seminar									
Reco	Recommended by Board of Studies 17-08-2017								
App	Approved by Academic Council No. 47 Date 05-10-2017								



Course code DESIGN METHODOLOGY L T P J C MDE5002 0			Consider the University index section 3 of UGC Act, 1956)						
Pre-requisite Syllabus version V. 1.0 Course Objectives: 1. Understanding the concept of product design and development. 2. Creativity Techniques for product design. Expected Course Outcome: The students will have, 1. Ability to carry out product development process and the concept of prototyping. 2. Generate design solutions using various creativity techniques. 3. Demonstrate mediums for concept generations. 4. Ability to dor apid prototyping. Module:1 6 hours Concept development cycles in product development and innovation using different brainstorming techniques. Design development of 2D, 3D products using metaphors through poetry writig. Exercises to represent ideas through infographics, low and high fidelity sketches. Module:2 8 hours Exercises to represent ideas through digital mediums. Module:3 8 hours Exercises to develop prototypes using soft materials (paper, cardboard, thermocol, foam, clay, and POP). Module:5 6 hours Exercises to develop prototypes using soft materials (wood, FRP, sheet metal and HIPS). Module:6 10 hours Exercises on arapid prototyping t	Course co	de	DESIGN METHODOLOGY	<i>č</i>		T	Р	J	С
Course Objectives: v. 1.0 Course Objectives: . 1. Understanding the concept of product design and development. 2. Creativity Techniques for product design. Expected Course Outcome: . The students will have, . 1. Ability to carry out product development process and the concept of prototyping. . 2. Generate design solutions using various creativity techniques. 3. Demonstrate using different mediums for concept generations. 4. Ability to do rapid prototyping. Module:1 6 hours Concept development exercises in product development and innovation using different brainstorming techniques. Design development of 2D, 3D products using metaphors through poetry writing. Module:2 8 hours Exercises to represent ideas through digital mediums. 8 hours Exercises to represent ideas through digital mediums. 8 hours Exercises to develop prototypes using soft materials (paper, cardboard, thermocol, foam, clay, and POP). Module:3 6 hours Exercises to develop prototypes using hard materials (wood, FRP, sheet metal and HIPS). Module:5 Module:6 10 hours Exercises on rapid prototyping techn	MDE500	2			0	0	4	4	3
Ourse Objectives: 1. Understanding the concept of product design and development. 2. Creativity Techniques for product design. Expected Course Outcome:	Pre-requis	ite			Sylla	bus	s ve	rsio	n
2. Creativity Techniques for product design. Expected Course Outcome: The students will have, 1. Ability to carry out product development process and the concept of prototyping. 2. Generate design solutions using various creativity techniques. 3. Demonstrate using different mediums for concept generations. 4. Ability to do rapid prototyping. Module:1 Concept development exercises in product development and innovation using different brainstorming techniques. Design development of 2D, 3D products using metaphors through poetry writing. Module:2 Resercises to represent ideas through infographics, low and high fidelity sketches. Module:3 Exercises for rendering products through digital mediums. Module:4 Exercises to develop prototypes using soft materials (paper, cardboard, thermocol, foam, clay, and POP). Module:5 Exercises to develop prototypes using hard materials (wood, FRP, sheet metal and HIPS). Module:7 Exercises on surface finishing techniques such as Spray painting. Lacquering. Plating. Product graphics, etc., Module:7 Exercises on rapid prototyping techniques. Module:8 Contemporary issues: Module:9 Fixer Contemporary issues: Module:9 Contemporary issues: Module:9 Contemporary discussion with the artists and designers. Module:9 Fixer Contemporary issues: Module:9 Contemporary discussion with the artists and designers. Contemporary discussion with the artiste and designers. Contemporary discussion with the artists and desi	Course Object	tives:			l				
Expected Course Outcome: The students will have, 1. Ability to carry out product development process and the concept of prototyping. 2. Generate design solutions using various creativity techniques. 3. Demonstrate using different mediums for concept generations. 4. Ability to do rapid prototyping. Module:1 6 hours Concept development exercises in product development and innovation using different brainstorming techniques. Design development of 2D, 3D products using metaphors through poetry writing. Module:2 8 hours Exercises to represent ideas through infographics, low and high fidelity sketches. Module:3 8 hours Exercises for rendering products through digital mediums. Module:4 8 hours Exercises to develop prototypes using soft materials (paper, cardboard, thermocol, foam, clay, and POP). Module:5 6 hours Exercises on surface finishing techniques such as Spray painting, Lacquering, Plating, Product graphics, etc., Module:7 10 hours Exercises on rapid prototyping techniques. Exercises on rapid pro									
The students will have, 1. Ability to carry out product development process and the concept of prototyping. 2. Generate design solutions using various creativity techniques. 3. Demonstrate using different mediums for concept generations. 4. Ability to do rapid prototyping. Module:1 Module:1 Module:2 Module:2 Module:3 Module:3 Module:3 Module:4 Module:4 Module:5 Module:5 Module:5 Module:5 Module:6 Module:6 Module:6 Module:7 Module:6 Module:7 Module:7 Module:6 Module:7 Module:7 Module:7 Module:6 Module:7	2. Creati	vity Tec	chniques for product design.						
	Expected Cou	rse Out	come:						
2. Generate design solutions using various creativity techniques. 3. Demonstrate using different mediums for concept generations. 4. Ability to do rapid prototyping. Module:1 Goncept development exercises in product development and innovation using different brainstorming techniques. Design development of 2D, 3D products using metaphors through poetry writing. Module:2 Module:2 Shours Exercises to represent ideas through infographics, low and high fidelity sketches. Module:3 Exercises for rendering products through digital mediums. Module:4 Exercises to develop prototypes using soft materials (paper, cardboard, thermocol, foam, clay, and POP). Module:5 Exercises to develop prototypes using hard materials (wood, FRP, sheet metal and HIPS). Module:6 Exercises on surface finishing techniques such as Spray painting, Lacquering, Plating, Product graphics, etc., Module:7 Exercises on rapid prototyping techniques. Module:8 Contemporary discussion with the artists and designers. Module:9 Total Lecture hours: for the artists and designers. Free Books Product Design and Development, 3rd Ed., by U. T. Karl and S. D. Eppinger, Tata McGraw Hill, 2004. Reference Books L Design Adventice of the store of the sto	The students w	ill have,							
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Exercises on rapid prototyping techniques. Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. 60 hours Total Lecture hours: 60 hours Interview of the artists and designers. Text Book(s) 1. Product Design and Development, 3rd Ed., by U. T. Karl and S. D. Eppinger, Tata McGraw Hill, 2004. Reference Books 1. Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design			<u> </u>	5,8,	8F		-,		
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 Product Design and Development, 3rd Ed., by U. T. Karl and S. D. Eppinger, Tata McGraw Hill, 2004. Reference Books Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design 	Text Book(e)								
Reference Books 1. Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design		Design a	nd Development, 3rd Ed., by U. T. Karl and S. D. En	oinger. Tata McGra	aw Hill.	2004	1.		
1. Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design									
Effective Solutions, by Bruce Hanington and Bella Martin.	1. Universal	Metho		ns, Develop Innov	ative Idea	as, a	nd	Des	ign
	Effective	Solution	ns, by Bruce Hanington and Bella Martin.						

VIT	
	Vellore Institute of Technology (Deemed to be University under section 3 of UGC Act, 1956)

2.	Delft Design Guide: Design Strategies and Methods by Delft University of Technology Faculty of Industrial									
	Design Engineering, 2013, by Technische Hogeschool Delft, Annemiek van Boeijen, Jaap Daalhuizen.									
3.										
Mod	le of Evaluation: Assignment / FAT / Proje	ect / Seminar								
Reco	ommended by Board of Studies	17-08-2017								
App	roved by Academic Council	No. 47	Date	05-10-2017						



~	-	(Dema to be University under section 3 of UCC Act, 1956)			<u> </u>		T =-
Course co		ART, DESIGN AND SOCIET	Γ Y	I	<u> </u>	P J	C
MDE 50	03			2	2	0 0	3
Pre-requis	site			Sylla	abus	versi	on
					v. 1	.0	
Common Ohio	4.						
Course Objec		principles of art and design and its impact on society					
	the key	principles of art and design and its impact of society					
Expected Cou	ırse Out	come:					
The students w	vill have	,					
1. Unde	rstanding	g the culture and its relations to design					
		thods and function complex analysis					
		g on the Principles of design					
4. Desig	gn respor	nsibilities					
			41				
Module:1	rolation	s to Industrial Design	4 hours				
	relation	is to industrial Design					
Module:2			4 hours				
	prevent	solving tasks in new and innovative ways; Creativity		n Comple	x Ar	alysis	3
	•						
Module:3			4 hours				
Attributes of p	roducts;	Indianness in product design; Identifying factors cont	ributing to X-ness	s in produ	icts		
Module:4	lding m	eaningfulness in product design; Negative impacts of	4 hours	ata in aa	aiate		
Universal Prin			meaningless produ	acts in so	ciety	,	
	erpres of	2005					
Module:5			4 hours				
Design respon	sibility;	Social responsibilities of designers					
Module:6	6 1		4 hours				
Implications o	r aestnet	ics in product design; Key issues in visual arts and de	sign.				
Module:7			4 hours				
	ts impact	t on society; Contributions of Bauhaus to the field of i					
Module:8		emporary issues:	2 hours				
Contemporary	discussi	on with the artists and designers.					
	T-4-11		20 1				
	Total I	Lecture hours:	30 hours				
Text Book(s)							
		4), "Design for the Real World", 2nd Edition, Londor	n: Thames & Huds	son			
Reference Bo1.Lidwell.		den, K., Butler, J. [Ed] (2003). Universal Principles of	Dasian Posknor	+			
		Singapore	Design, Rockpor	ι			
2. Routledg	ge Interna	ational Handbook of Participatory Design, Routledge	Press, 2013				
Mode of Evalu	iation: C	AT / Assignment / Quiz / FAT / Project / Seminar					

VIII Velore Institute of Technology (round the University and a COC Act, 199)							
Recommended by Board of Studies	17-08-2017						
Approved by Academic Council	No. 47	Date	15-10-2017				



		(Deemad to be University under section 3 of UGC Act, 1956)						
Course c		INDUSTRIAL DESIGN		L	μ T	P J	С	
MDE50	07			0	0	4 4	3	
Pre-requi	icito			Sylle	ahue	versi	ion	
110-10qu	15110			Syna	v. 1		UII	
						.0		
		Course Objectives:						
		g the user-centred design process including form and c	colour theory.					
2. Unde	erstanding	g product metamorphosis, and ergonomics.						
		Expected Course Outcome:						
The students	will have.							
		product design through proper observation.						
-		lesign concepts for different types of users.						
3. Understand	ling the co	ognitive, morphological process inherent in applying f	form analogies.					
4. Ability to d	lo implen	nent sustainable design and to evaluate the prototype.						
Module:1			6 hours					
Exercises on a	making d	esign brief through different methods of observation.						
Module:2		esien heisf three he different methods of muchters iden	8 hours					
Exercises on i	making d	esign brief through different methods of problem iden	tification.					
Module:3			8 hours					
	naking n	ersonas with different user study techniques.	8 110015					
Excrements on a	making p	ersonus with enforcent user study teeninques.						
Module:4			8 hours					
Development	of design	n concepts based on themes and attributes.						
-		*						
Module:5			6 hours					
Development	of design	n concepts based metaphors.						
Module:6	6.1.		10 hours					
Development	of design	n concepts based on elements from nature.						
Module:7			10 hours					
	of concer	pt generation, testing and evaluation.	10 110015					
Development	or conce	presentation, testing and evaluation.						
Module:8	Conte	emporary issues:	4 hours					
		ion with the artists and designers.						
		5						
	Total I	Lecture hours:	60 hours					
Text Book(s)	1							
		"The Industrial Design Reader", Skyhorse Publishing,	2003					
		The manufacture Design Reader , Skynoise i donoming,						
Reference Bo	oks							
		ppinger, Steven D, 'Product Design and Development	', McGraw-Hill, 2	2004.				
		Vogel, Craig M, 'Creating breakthrough products: In	novation from pro	oduct				
planning	g to progr	am approval', Financial Times Prentice Hall, 2002.						



Mode of Evaluation: Assignment / FAT / Project / Seminar

Recommended by Board of Studies	17-08-2017		
Approved by Academic Council	No. 47	Date	05-10-2017



		Vellore Institute of Technology (Dremad to be University under section 3 of UIC Act, 1956)						
Course of	code	BASIC ERGONOMIC	S	L	T	I) J	C
MDE 5	005			2	0	2	2 0	3
Pre-requ	isite			Syll	abı	us	vei	sio
1					v. 2			
Course Obj								
Students wil		,						
	·	ciples of ergonomics and how to apply the prin	•	•				
	-	portance and techniques of human biological da		.	ents	s.		
3. Obtain a l	knowledg	e and ability towards Accident Investigation ar	nd Safety Manager	nent.				
Expected C	ourse Oi	itcomo:						
	lents will							
		and the applications of ergonomic principles in	n industrial design.					
		e mechanics of human body.	C					
		e human body motions and limitations.						
		fect of environmental factors on human behavi	our.					
		alyse the non-tangible human factors.						
6. Applyin	g the prir	ciples of ergonomics in HCI and HMI.						
Module:1	Introd	uction to Ergonomics	4 hours					
		t details – Syllabus, Ergonomics Past to present	• • •	tanding	Hu	ım	an	
factors and I	Ergonom	cs, Basic Applications and Systems Integration	1.					
Module:2	Anthro	ppometry	4 hours					
iniouule.2	Antin							
Measuremer	nts of the	body used in Human Factors in Engineering (I		encing	the	cl	nan	ge i
Measuremer	nts of the	body used in Human Factors in Engineering (I ons. Statistical Essentials for using Anthropom		iencing	the	cl	nan	ge i
Measuremen body size of	nts of the population			iencing	the	cl	nan	ge
Measuremen body size of Module:3	bits of the population Body:	ons. Statistical Essentials for using Anthropome	etric data in HFE. 4 hours					ge i
Measuremen body size of Module:3 Understandi	Body:	ons. Statistical Essentials for using Anthropome The mechanical system re and movement, Fundamental aspects of sitting	etric data in HFE. 4 hours					ge
Measuremen body size of Module:3 Understandi	Body:	ons. Statistical Essentials for using Anthropome	etric data in HFE. 4 hours					ge :
Measuremen body size of Module:3 Understandi workstation	Body: ng Postur design, V	ons. Statistical Essentials for using Anthropome The mechanical system re and movement, Fundamental aspects of sitting	etric data in HFE. 4 hours					ge :
Measuremen body size of Module:3 Understandi workstation Module:4	Body: ng Postur design, V	ons. Statistical Essentials for using Anthropome The mechanical system re and movement, Fundamental aspects of sitting Vorkstation design and viewing angles	etric data in HFE. 4 hours and standing, St 4 hours 4 hours					
Measuremen body size of Module:3 Understandi workstation Module:4 Fundamenta	Body: ' Body: ' ng Postur design, V Enviro	The mechanical system The mechanical system re and movement, Fundamental aspects of sittin Vorkstation design and viewing angles mments factors: Measurement & Design on and Lighting, Hearing, Sound, Noise and V	etric data in HFE. 4 hours ng and standing, St 4 hours ibration.					ge
Measuremen body size of Module:3 Understandi workstation Module:4 Fundamenta Module:5	Body: ' Body: ' Body: ' ng Postur design, V Enviro ls of Visi Health	ons. Statistical Essentials for using Anthropome The mechanical system re and movement, Fundamental aspects of sittin Vorkstation design and viewing angles onments factors: Measurement & Design on and Lighting, Hearing, Sound, Noise and V and wellbeing for changing population	 etric data in HFE. 4 hours and standing, St 4 hours ibration. 4 hours 	eps for	effe	ect	ive	
Measuremen body size of Module:3 Understandi workstation Module:4 Fundamenta Module:5 Workload, F	Body: ' Body: ' ng Postur design, V Enviro Ils of Visi	The mechanical system The mechanical system The mechanical system The and movement, Fundamental aspects of sittin Vorkstation design and viewing angles The ments factors: Measurement & Design On and Lighting, Hearing, Sound, Noise and V The mechanical system The m	 etric data in HFE. 4 hours and standing, St 4 hours ibration. 4 hours 	eps for	effe	ect	ive	ge ::
Measuremen body size of Module:3 Understandi workstation Module:4 Fundamenta Module:5 Workload, F Actions and	Body: Body:	ons. Statistical Essentials for using Anthropome The mechanical system Te and movement, Fundamental aspects of sittin Vorkstation design and viewing angles onments factors: Measurement & Design on and Lighting, Hearing, Sound, Noise and V and wellbeing for changing population r work and health, working in hot and cold clin ations and Design for physically challenged.	 etric data in HFE. 4 hours and standing, Standing	eps for	effe	ect	ive	ge ::
Measuremen body size of Module:3 Understandi workstation Module:4 Fundamenta Module:5 Workload, F	Body: Body:	The mechanical system The mechanical system The mechanical system The and movement, Fundamental aspects of sittin Vorkstation design and viewing angles The ments factors: Measurement & Design On and Lighting, Hearing, Sound, Noise and V The mechanical system The m	 etric data in HFE. 4 hours and standing, St 4 hours ibration. 4 hours 	eps for	effe	ect	ive	ge :
Measuremen body size of Module:3 Understandi workstation Module:4 Fundamenta Module:5 Workload, F Actions and Module:6	Body: ' Body: ' ng Postur design, V Enviro Ils of Visi Health Fitness for Interpret Cognit	ons. Statistical Essentials for using Anthropome The mechanical system Te and movement, Fundamental aspects of sittin Vorkstation design and viewing angles onments factors: Measurement & Design on and Lighting, Hearing, Sound, Noise and V and wellbeing for changing population r work and health, working in hot and cold clin ations and Design for physically challenged.	 etric data in HFE. 4 hours and standing, Standing	work: In	effe	nti	ive	



- Et	ror, Failu	re and violations by human. Risk – perception and prev	ention. Cross-cultural	l Design.
Mo	dule:7	Workstation & Task Design	4 hours	
Bas Des		ations – Design to fit the target population. Repetiti	ve Tasks: Risk Asse	ssment and Task
Mo	dule:8	Contemporary issues:	2 hours	
Con	temporar	y discussion with industry experts.		
		Total Lecture hours:	30 hours	
Tex	t Book(s)			
1.	Bridger	RS, 'Introduction to Human Factors & Ergonomics', Fo	ourth Edition, Taylor &	& Francis, 2010.
Ref	erence B			
1.	Dul. J an 2008.	nd Weerdmeester B, 'Ergonomics for beginners, a quick	reference guide, Tayl	lor & Francis,
2.		emer, Henrike Kroemer, Katrin Kroemer-Elbert, "ERC ency, Prentice Hall International Editions, 1997.	GONOMICS" How to	Design for Ease
3.	-	(Edt), Ergonomics Interventions for Health and Produc , New Delhi, 2007.	ctivity, Himanshu Pub	lications,
4.		rabarti, Indian Anthropometric Dimensions for ergonon n, Ahmedabad, 1997.	nic design practice, N	ational Institute
Mod	de of Eval	uation: CAT / Assignment / Quiz / FAT / Project / Sem	inar	
List	t of Chall	enging Experiments (Indicative)		
1.	Anthrop	ometry		6 hours
2.	Grip Str	ength – Hand and Pinch		3 hours
3.	Hand str	ength and Back strength		3 hours
4.	RULA A	Analysis		3 hours
5.	RULA A	Analysis		3 hours
6.	Measure	ement of Environmental Factors		6 hours
7.	Borg Sc	ale of perceived exertion		3 hours
8.	NASA 7	TLX		3 hours
		Tot	al Laboratory Hours	30 hours
		ssment: Assignments / FAT		1
Rec	ommende	bd by Board of Studies 27-11-2019		

	VIT Vellore Institute Orseand to be University under a	Def Technology		
Approved by Academic Council	No. 57	Date	05-12-2019	



Course co	de	COMPUTER AIDED PRODUCT I	DESIGN		PJ	C
MDE50						
Pre-requi	site			Syllabu		ion
				V	1.0	
Course Objec	•tives•					
		e course program is,				
1.	Fo work of	on varied projects that expose students to training in a	ligital design using	2D and 3D	surfac	e
r	nodelling	g software's.				
2. 2	2D Digita	l printing 3D scanning. 3D printing and laser cutting				
	0.1					
Expected Cou	irse Out	come:				
		ability to develop and have,				
1. Ability to h						
2. Essential sk						
		s for Realistic renderings.				
4. Ability to de	esign and	l develop digital Portfolio design				
Mod-lo-1			10 ha			
Module:1 Poster design	1		10 hours			
Poster design	-1					
Module:2			5 hours			
Poster design	-2					
	1		201			
Module:3	dalling	1	20 hours			
3D surface mo	odennig -	1				
Module:4			10 hours			
3D surface mo	odelling -	2	10 Hours			
_	U					
Module:5			5 hours			
Realistic 3D re	endering	-1				
	1					
Module:6 Realistic 3D realistic	andonina	2	3 hours			
Realistic 5D fo	endering	-2				
Module:7			5 hours			
Portfolio desig	gn					
Module:8	Conte	emporary issues:	2 hours			
~						
Contemporary	discussi	on with the artists and designers.				
<u> </u>	Total I	ecture hours:	60 hours			
	- Juan L		SV HOULD			
Text Book(s)	1111			f	-4- 4	
		and A Agus Sudjianto, "Computer Aided Product D lishing ,2016	esign Using Six Si	gma for Gre	eatest	
Reference Bo						



1.	Alison Beazley and Teny bond, "Computer Aided Pattern Design and product Development ", Wiley – Blackwell Publications, 2009					
2. Mod	Justin Riggs, "Computer – Aided Design le of Evaluation: CAT / Assignment / Quiz	0		ess,2016		
Reco	Recommended by Board of Studies 17-08-2017					
App	roved by Academic Council	No. 47	Date	15-10-2017		



SYLLABUS FOR

PROGRAM ELECTIVE

COURSES



Course code	HUMAN FACTORS IN DESIGN	
MDE 6021		2 0 2 0 3
Pre-requisite		Syllabus versior
MDE5005	Basic Ergonomics	v.2.00
Course Objective	es:	
The students will	have,	
are used to 2. Ability to	e in anthropometry, biomechanical and physiological princ o optimize human well-being and overall performance. Identify, Analyse, Setup and implement solutions to a hum e on the impact of human factors in workplace design-envi- ty.	nan factors problem.
Expected Course	e Outcome:	
The students will	have,	
	consider human factors and limitations in designing consumers workplaces and work environment.	mer/industrial
 Understan ergonomic Exposure Ability to 	ding the concepts of applied anthropometry, workplace des es aspects in various environmental conditions. to digital Human modelling. apply human factors in various environments and consider ors & accidents.	-
 Understan ergonomic Exposure Ability to human err 	ding the concepts of applied anthropometry, workplace des es aspects in various environmental conditions. to digital Human modelling. apply human factors in various environments and consider ors & accidents.	-
 Understan ergonomic Exposure Ability to human err Module:1 Intro Human – System Selection of action	ding the concepts of applied anthropometry, workplace des as aspects in various environmental conditions. to digital Human modelling. apply human factors in various environments and consider	ring human factors in
 Understan ergonomic Exposure Ability to human err Module:1 Intro Human – System Selection of action action, sequencing Module:2 Desi Task Analysis. Je Factors in Organ	ding the concepts of applied anthropometry, workplace descs aspects in various environmental conditions.to digital Human modelling.apply human factors in various environments and considerors & accidents.duction to Human Factors2 hoursInteraction. Ergonomic Design. Human centric Design of sn in single/ multi task performance. Motor control of action	ring human factors in service/system. n – co-ordination of and training. Human Affective engineering
 Understan ergonomic Exposure Ability to human err Module:1 Intro Human – System Selection of action action, sequencing Module:2 Desi Task Analysis. Jo Factors in Organiand design with res	ding the concepts of applied anthropometry, workplace deses aspects in various environmental conditions.to digital Human modelling.apply human factors in various environments and considerors & accidents.duction to Human Factors2 hoursInteraction. Ergonomic Design. Human centric Design of sn in single/ multi task performance. Motor control of actiong and timing of action- Reaction time. Motor Learning.gn of Task/Job, workplace and Environment 4 hoursob Design. Personnel Recruitment, selection, evaluationisational design and management – situation awareness.	ring human factors in service/system. n – co-ordination of and training. Human Affective engineering
 Understan ergonomic Exposure Ability to human err Module:1 Intro Human – System Selection of action action, sequencing Module:2 Desi Task Analysis. Jo Factors in Organiand design with response of the second s	ding the concepts of applied anthropometry, workplace deses aspects in various environmental conditions. to digital Human modelling. apply human factors in various environments and consider ors & accidents. duction to Human Factors 2 hours Interaction. Ergonomic Design. Human centric Design of s n in single/ multi task performance. Motor control of action g and timing of action- Reaction time. Motor Learning. gn of Task/Job, workplace and Environment 4 hours ob Design. Personnel Recruitment, selection, evaluation isational design and management – situation awareness. espect to Workplace Design. Role of Illumination, Noise, V	ring human factors in service/system. n – co-ordination of and training. Human Affective engineering Vibration, and Motion.
 Understan ergonomic Exposure 1 Ability to human err Ability to human err Module:1 Intro Human – System Selection of action action, sequencing Module:2 Desi Task Analysis. Jo Factors in Organiand design with residuated design	ding the concepts of applied anthropometry, workplace deses aspects in various environmental conditions. to digital Human modelling. apply human factors in various environments and consider ors & accidents. duction to Human Factors 2 hours Interaction. Ergonomic Design. Human centric Design of s n in single/ multi task performance. Motor control of action g and timing of action- Reaction time. Motor Learning. gn of Task/Job, workplace and Environment 4 hours ob Design. Personnel Recruitment, selection, evaluation isational design and management – situation awareness. espect to Workplace Design. Role of Illumination, Noise, V 4 hours Ith and safety management. Human error and reliability is r in Workplace -MSD. Warning and Hazards communica	ring human factors in service/system. n – co-ordination of and training. Human Affective engineering Vibration, and Motion analysis. Managemen



Modelling Human performance in complex systems. Human supervisory controls. Neuroergonomics in Human – system interaction. Digital Human simulation in Design and virtual environment. Accident and Incident investigation. Cost Benefit Analysis in Human-system Investments. Methods for evaluations outcomes.

Module:5Human Factors and Cognitive Aspects4 hoursInformation processing – sensation and perception. Decision making models, decision support and
problem solving. Mental workload and situation awareness. Social and Organisational bases.
Anthropometry for Product and Workspace Design.

Module:6 Human Computer Interaction

Visual Displays – Information visualization. Human factors in Online communications and social computing. Human factors and information security. Usability testing – UX and UI perspectives. User Requirement analysis. Website design and evaluation. Human Factors in ambience intelligence environments. AI and Human with respect to HCI. Interactivity – Evolution and emerging tools.

Module:7 Applications of Human factors and Ergonomics 4 hours

Design for people with functional limitations, Aged and Children. Design for All: Computer assisted design of user interface. HFE Standards. Office Ergonomics. HFE in Manufacturing, Healthcare, Transport, Automation Design, and Aviation.

 Module:8
 Contemporary issues:

2 hours

4 hours

Contemporary discussion with the artists and designers.

Total Lab hours: 30 hours

List of Experiments (Indicative)

- 1. Ergonomic analysis of Manual Material Handling equipment.
- 2. Workspace design and seating, arrangement of components within a physical space.
- 3. Design of repetitive task, design of manual handling task.
- 4. Ergonomic analysis of Controls and data entry devices.
- 5. Illumination, climate, noise, motion, sound, vibration.
- 6. Human error, accidents, human factors and the automobile.
- 7. Organizational and social aspects.
- 8. Virtual environments.

Text Book(s)

1.	G. Karl Kroemer, Henrike Kroemer, Katrin Kroemer-Elbert, "ERGONOMICS" How to
	Design for Ease & Efficiency, Prentice Hall International Editions, 2010.
Da	forence Decks

Reference Books

1. Mark S Sanders, "Human Factors in Engineering and Design", McGraw Hill, New York, 1993.



2. J. Bridger R S, "Introduction to Ergonomics", Taylor and Francis, London, 2003.							
Mode of Evaluation: Assignment / FAT / Project							
Recommended by Board of Studies	27-11-2019						
Approved by Academic Council	No. 56	Date	05-12-2019				



~		Vellore Institute of Technology					-	
Course cod	le	Entrepreneurship and Startups		L	Т	Р	J	С
MDE 6002				2	0	0	0	4
Pre-requisi	ite			Sylla	bu	s ve	ers	ion
Anti-requis	site						v.2	2.00
Course Ob	jectives	To understand contemporary management and finance	cial pr	inciples	s fo	r		
entrepreneu	rs and r	new concepts in venture capital for start-ups.	_	-				
Expected C	Course	Outcome:						
exploitation	of enti	te entrepreneurial opportunities through the invention, rely new ideas, products and services, and/or the creation ways of doing business.		-			s,	
Module:1		4 hours						
as part of th	e image	for product planning. Management thinking on new pro- e of the company. Moving into future, defining company	ies bu	isiness,	teo	chn		
transfer pro	blems, s	SWOT analysis. Analysis of strength, weakness, oppor	tunitie	es and t	nre	eat.		
Module:2		4 hours						
		to assessing of companies financial performance. Stu and competition, when to introduce new products.	dy of	produc	t l	ife	су	cle,
Module:3		4 hours						
demographi	c aspec	potentials for new products, market research, Contexts, setting up a questionnaire for these aspects. Establis. Risk management and venture capital.						
Module:4		4 hours						
-	-	ors share and locating direct and indirect sources to us ing approach and strategies.	nderst	and this	s. <i>I</i>	Ass	ess	ing
Module:5		4 hours						
Developing	a strat	egy to introduce new products, using market gaps a	s com	petitive	e e	dge	. (cost
				1		0	,	



		(Deemed to be University under section 3 of UGC Act, 1956)			
consideratio	ons and profitability of new	products.			
Module:6			4 h	ours	
product por market/prod style, mark	a product plan for Start-up sitioning, planning for futu- luct plan. Seeing product d eting strategy and corporate etitor's range/ patents. Lega	re position. Evolvin esign as a part of a s image. Discriminat	ng a des scheme	sign brief to develop	by interlinking with brand image, house
Module:7			4 h	ours	
Communica	tion, launching the product,	поппоння на шат	くししししい	Лиана.	
Module:8	Contemporary issues:			ours	
Module:8		Total Lecture hour	2 h		
Module:8 Text Book	Contemporary issues:		2 h	ours	
Text Book	Contemporary issues:	Total Lecture hour	2 h rs: 30	ours	hi, 2004. [sep]
Text Book	Contemporary issues: (s) Philips, 'Marketing Manage	Total Lecture hour	2 h rs: 30	ours	hi, 2004. [see]
Text Book 1. Kotler Reference	Contemporary issues: (s) Philips, 'Marketing Manage	Total Lecture hour	2 h rs: 30	ours	hi, 2004. sep
Text Book 1. Kotler Reference Mode	Contemporary issues: (s) Philips, 'Marketing Manage Books	Total Lecture hour	2 h rs: 30	ours	hi, 2004. [1]



Course co	de	MEDICAL PRODUCT DESIGN			L J	P	J	С
MDE601) 0		4	3
	-							-
						1		
Pre-requis	site			Svl	abu	s ve	rsio	n
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			o ji	yllabus version v. 1.0			
Course Object	tives:							
To understand	the key a	aspects of designing and developing products for medical applicatio	ns					
Expected Cou	rse Out	come:						
The students w	vill have.							
	,	ly design knowledge in observation and idea generations.						
		g to apply design principles pertaining to medical field for designing	and	develo	ning	me	dica	1
produ		s to upply design principles pertaining to medical neta for designing	, una	ue (e 10	P	me	area	
1.		r applying standards pertaining to medical field for designing and de	evelo	ping m	edic	al		
produ	cts							
Module:1		6 hours						
Classifying me	dical pro	oduct						
Module:2 Designing Class	a I modi	8 hours						
Designing Clas	ss i meui							
Module:3		8 hours						
Designing Clas	ss I medi							
Module:4		8 hours						
Developing Cla	ass II me	edical product						
Module:5		6 hours						
Developing Cla	ass II me	edical product						
Module:6		10 hours						
Designing Clas	ss III me							
Module:7		10 hours						
Designing Class	ss III me	dical product						
Module:8		emporary issues: 4 hours						
Contemporary	discussi	on with the artists and designers.						
 	TotalT	Lecture hours: 60 hours						
	1 otal L	Lecture nours: 60 nours						
Text Book(s)								
1. Peter Ogr	rodnik, (2012), "Medical Device Design", Academic press						
Reference Boo	alze							
		rocess of Innovating Medical Technologies, Zenios, Makower, Yoch	k CI	Press				
			α, ττ	11035				
2. http://web	b.mit.edu	u/2.75/resources/FUNdaMENTALS.html						



Mode of Evaluation: Assignment / FAT / Project / Seminar

Recommended by Board of Studies	25-09-2017		
Approved by Academic Council	No. 47	Date	05-10-2017

MDE 6022 0 0 0 4 4 Pre-requisite Syllabus version v. 1.0 Course Objectives: v. 1.0 v. 1.0 To have the knowledge about automotive styling and designing. Expected Course Outcome: v. 1.0 Will gain the aesthetic sensibility in automobile design as well as manufacturing constraints. Module:1 6 hours Sketching automobile. 6 hours Sketching automobile. Module:2 Module:2 8 hours 8 hours Rendering automobile with digital medium. 8 hours Module:3 Module:3 8 hours Module:4 Evolution study. 6 hours Trend analysis and market study. Module:6 10 hours 10 hours Module:7 10 hours 10 hours Text Book(s) 7 10 hours Text Book(s) 1. P. Sparke, A Century of Car Design, Mitchell Beasley, London, 2002 Reference Books I. C. E. Armi, American Car Design Now: Inside the Studios of Today's top C Designers, Rizzoli : Distributed in the U.S. trade by St. Martin's Press, New York, 2003			VIT Vellore Institute of Technology Communic bet Unimarity materia and TUCk. AL (198)							
Pre-requisite Syllabus version V. 1.0 V. 1.0 Course Objectives: V. 1.0 To have the knowledge about automotive styling and designing. Expected Course Outcome: Will gain the aesthetic sensibility in automobile design as well as manufacturing constraints. Module:1 Module:1 6 hours Sketching automobile. 8 hours Module:2 8 hours Rendering automobile with digital medium. 8 hours Module:3 8 hours Module:4 8 hours Evolution study. 6 hours Module:5 10 hours Module:6 10 hours Module:7 10 hours Module:8 Contemporary issues: 4 hours 60 hours Text Book(s) 7 1. P. Sparke, A Century of Car Design, Mitchell Beasley, London, 2002 Reference Books 1. 1. C. E. Armi, American Car Design Now: Inside the Studios of Today's top C Designers, Rizzoli : Distributed in the U.S. trade by St. Martin's Press, New York, 2003 2. H. Evenden, Moving Forward: New Directions in Transport Design, Helen Evendon, Londo 2007 3. L. W. Haajanen & B. N	Course c	ode	TRANSPORTATION DESIG	N	L	Т	Р	J	C	
V. 1.0 Course Objectives: To have the knowledge about automotive styling and designing. Expected Course Outcome: Will gain the aesthetic sensibility in automobile design as well as manufacturing constraints. Module:1 6 hours Sketching automobile. Module:2 8 hours Rendering automobile with digital medium. Module:3 8 hours Module:4 8 hours Evolution study. 6 hours Module:5 6 hours Trend analysis and market study. 10 hours Module:7 10 hours Module:8 Contemporary issues: Contemporary discussion with the artists and designers. 60 hours Text Book(s) 1. 1. P. Sparke, A Century of Car Design, Mitchell Beasley, London, 2002 Reference Books 1. 1. C. E. Armi, American Car Design Now: Inside the Studios of Today's top C Designers, Rizzoli : Distributed in the U.S. trade by St. Martin's Press, New York, 2003 2. H. Evenden, Moving Forward: New Directions in Transport Design, Helen Evendon, Londo 2007 3. L. W. Haajanen & B. Nydén, Illustrated Dictionary of Automobile Body Styles, McFarland Co., Jefferson, N.C., 2002	MDE 602	22			0	0	4	4	3	
Course Objectives: To have the knowledge about automotive styling and designing. Expected Course Outcome: Will gain the aesthetic sensibility in automobile design as well as manufacturing constraints. Module:1 6 hours Sketching automobile. 8 hours Module:2 8 hours Rendering automobile with digital medium. 8 hours Model making with different materials. 8 hours Module:3 8 hours Evolution study. 6 hours Module:5 6 hours Trend analysis and market study. 10 hours Module:6 10 hours Module:7 10 hours Module:8 Contemporary issues: Contemporary discussion with the artists and designers. 60 hours Text Book(s) 1. I. P. Sparke, A Century of Car Design, Mitchell Beasley, London, 2002 Reference Books 1. C. E. Armi, American Car Design Now: Inside the Studios of Today's top C Designers, Rizzoli : Distributed in the U.S. trade by St. Martin's Press, New York, 2003 2. H. Evenden, Moving Forward: New Directions in Transport Design, Helen Evendon, Londc 2007 3. L	Pre-requ	isite			Syllab			on	1	
To have the knowledge about automotive styling and designing. Expected Course Outcome: Will gain the aesthetic sensibility in automobile design as well as manufacturing constraints. Module:1 6 hours Sketching automobile. 8 hours Module:2 8 hours Rendering automobile with digital medium. Module:3 Module:3 8 hours Module:4 8 hours Evolution study. 6 hours Module:5 6 hours Trend analysis and market study. 10 hours Module:6 10 hours Tend analysis on market study. 10 hours Module:7 10 hours Total Lab hours: 60 hours Text Book(s) 1. P. Sparke, A Century of Car Design, Mitchell Beasley, London, 2002 Reference Books 1. C. E. Armi, American Car Design Now: Inside the Studios of Today's top C Designers, Rizzoli : Distributed in the U.S. trade by St. Martin's Press, New York, 2003 2. H. Evenden, Moving Forward: New Directions in Transport Design, Helen Evendon, Londo 2007 3. L. W. Haajanen & B. Nydén, Illustrated Dictionary of Automobile Body Styles, McFarland Co., Jefferson, N.C., 2002	Course	Objective				v.	1.0			
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4. T. Lewin, R. Broff, How to design cars like a Pro, MBI Publishing Company, MN, US		•	-		.,100,1					
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2003								
Mode of Evaluation: Assignment / FAT / Project								
Recommended by Board of Studies 03-03-2018								
Approved by Academic CouncilNo. 49Date15-03-2018								



Vellore Institute of Lechnology Consult to be baining under autima 3 of UGC Act, 1960											
Course code	SUSTAINABLE PR	ODUCT DESIGN	L T P J C								
MDE 6003			0 0 4 4 3								
Pre-requisite			Syllabus version								
			v. 1.0								
Course Objectives											
1. Understan	ding the fundamentals of Sustainable produ-	ct design									
	do sustainable projects using new emerging										
	explore sustainable materials and product p	backaging.									
Expected Course	Expected Course Outcome:										
The students will have,											
1. Ability to	explore new emerging sustainable technolog	gies.									
	on sustainable materials and sustainable pro										
	make sustainable food cutleries and recycla	ble product designs									
4. Knowledg	e of sustainable energies and vehicles.										
Module:1		6 hours									
	w emerging sustainable/eco-friendly technol										
	w emerging sustainable/eeo-intendry teenito.	logics.									
Module:2		8 hours									
Exercises for sustai	nable material exploration.	I									
Module:3		8 hours									
Exercises for sustai	nable product packaging.										
Module:4	nable food cutleries.	8 hours									
Exercises for sustai	nable 100d cutienes.										
Module:5		6 hours									
	lable product design.										
	* ž										
Module:6		10 hours									
Exercises for sustai	nable energies										
Modulo.7		10 hours									
Module:7 Exercises for sustai	nable vehicles	10 nours									
Excretises for sustai	mable vemeles										
Module:8 C	ontemporary issues:	4 hours									
	ussion with the artists and designers.										
Tot	al Lecture hours:	60 hours									
Text Book(s)											
Reference Books											
1. William Mcdonough and Michael Braungart (2002). "Cradle to Cradle: Remaking the Way We Make Things", North Point Press, New York.											
Selected Papers", IISc, Bangalore and TU Delft, The Netherlands.											



4.	^{4.} Papanek, V. (1984), "Design for the Real World", 2 nd Edition, London: Thames & Hudson.								
Mode of Evaluation: Assignment / FAT / Project / Seminar									
Reco	Recommended by Board of Studies 17-08-2017								
Approved by Academic CouncilNo. 47Date15-10-2017									



Course code SMART PRODUCT DESIGN L T P J C MDE6023 0			(Deemad to be University under section 3 of UGC Act, 1956)								
Pre-requisite Syllabus version v. 1.0 v. 1.0 Course Objectives: . 1. Understanding the trend and play along with the new evolved product design. Expected Course Outcome: . The students will have, . 1. Understanding the trend and play along with the new evolved product design. 2. Understanding the velocition of smart products. 2. Ability to generate design concepts using smart product components. 3. Understanding the smart co system. 4. Ability to integrate IOT in new products and to evaluate the prototype. Module:1 6 hours Smart Product history and evolution. 8 hours Familiarizing smart product components -1 8 hours Familiarizing smart product components -2 6 hours Electronic programming -1 6 hours Module:3 6 hours Electronic programming -1 10 hours Introduction to smart product eco-system. 10 hours Introduction of IOT in products. 60 hours Integration of IOT in products. 60 hours Text Book(s) 1 1. Smart Prod	Course co	ode	SMART PRODUCT DESIG	Ν]	LT	Р	J	С		
Course Objectives: v. 1.0 1. Understanding the user-centred design process. v. 1.0 Course Objectives: 1. 1. Understanding the trend and play along with the new evolved product design. Expected Course Outcome: The students will have, 1. Understanding the coulution of smart products. 2. Ability to generate design concepts using smart product components. 3. Understanding the smart cco system. 4. Ability to integrate IOT in new products and to evaluate the prototype. Module:1 6 hours Smart Product history and evolution. 8 hours Familiarizing smart product components -1 8 hours Familiarizing smart product components -2 6 hours Electronic programming -1 6 hours Module:5 6 hours Electronic programming -2 10 hours Introduction to smart products. 10 hours Integration of IOT in products. 60 hours Text Book(s) 60 hours 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co Itd Reference Books 1, Sinart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky	MDE602	23			(0 0	4	4	3		
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Module:4 6 hours Electronic programming – 1 6 hours Module:5 6 hours Electronic programming – 2 6 hours Module:6 10 hours Introduction to smart product eco-system. 10 hours Module:7 10 hours Integration of IOT in products. 10 hours Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. 60 hours Text Book(s) 1 Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co Itd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky											
Electronic programming – 1 Module:5 6 hours Electronic programming – 2 Module:6 10 hours Introduction to smart product eco-system. Module:7 10 hours Integration of IOT in products. Module:8 Contemporary issues: 4 hours Contemporary issues: 4 hours Contemporary discussion with the artists and designers. Total Lecture hours: 60 hours 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co Itd Reference Books 1. 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky		•	•								
Module:5 6 hours Electronic programming – 2 10 hours Module:6 10 hours Introduction to smart product eco-system. 10 hours Module:7 10 hours Integration of IOT in products. 4 hours Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. 60 hours Text Book(s) 60 hours 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co Itd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky	Module:4			6 hours							
Electronic programming – 2 Module:6 10 hours Introduction to smart product eco-system. Module:7 10 hours Integration of IOT in products. Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. Total Lecture hours: 60 hours Text Book(s) 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co Itd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky	Electronic pro	grammin	ng – 1								
Electronic programming – 2 Module:6 10 hours Introduction to smart product eco-system. Module:7 10 hours Integration of IOT in products. Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. Total Lecture hours: 60 hours Text Book(s) 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co Itd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky											
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Introduction to smart product eco-system. Module:7 10 hours Integration of IOT in products. 4 hours Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. 60 hours Total Lecture hours: 60 hours I Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co Itd Reference Books . 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky	Electronic pro	grammin	$\log - 2$								
Introduction to smart product eco-system. Module:7 10 hours Integration of IOT in products. 4 hours Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. 60 hours Total Lecture hours: 60 hours I Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co Itd Reference Books . 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky		1									
Module:7 10 hours Integration of IOT in products. 10 hours Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. 4 hours Contemporary discussion with the artists and designers. 60 hours Total Lecture hours: 60 hours I. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co Itd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky			1	10 hours							
Integration of IOT in products. Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. 60 hours Total Lecture hours: for the artists and designers. Total Lecture hours: Contemporary discussion with the artists and designers. Total Lecture hours: for the artists and designers. Text Book(s) 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky	Introduction to	o smart p	roduct eco-system.								
Integration of IOT in products. Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. 60 hours Total Lecture hours: for the artists and designers. Total Lecture hours: Contemporary discussion with the artists and designers. Total Lecture hours: for the artists and designers. Text Book(s) 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky	Madada 7			10 1							
Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. 60 hours Total Lecture hours: 60 hours Text Book(s) 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky	Module:/			10 hours							
Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. 60 hours Total Lecture hours: 60 hours Text Book(s) 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky	Integration of	IOT in n	roducts								
Contemporary discussion with the artists and designers. Total Lecture hours: 60 hours Text Book(s) 60 hours 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky	integration of	ioi mb	1044013.								
Contemporary discussion with the artists and designers. Total Lecture hours: 60 hours Text Book(s) 60 hours 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky											
Contemporary discussion with the artists and designers. Total Lecture hours: 60 hours Text Book(s) 60 hours 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky	Module:8	Conte	emporary issues:	4 hours							
Total Lecture hours: 60 hours Text Book(s) 60 hours 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd Reference Books 1. 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky											
Text Book(s) 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky											
Text Book(s) 1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky		Total I	Lecture hours:	60 hours							
1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd Reference Books 1. 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky											
1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd Reference Books 1. 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky											
Reference Books 1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky											
1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky	1. Smart Product Design, Hardcover – August 1, 2017, Send points Publishing Co ltd										
1. Smart things, Ubiquitous Computing User Experience Design , Mike Kuniavsky	Reference Books										
Mode of Evaluation: Assignment / FAT / Project / Seminar											
- *	Mode of Evalu	Mode of Evaluation: Assignment / FAT / Project / Seminar									
			-								

	VIT Vellore Institute of Technolog Oceaned to be takened yadde actions of ODCA.Act		
Recommended by Board of Studies	25-09-2017		
Approved by Academic Council	No. 47	Date	05-10-2017



	Veniore Institute of Iechnology (Domain to be bairway) under social of USC Act, 1950										
Course co	ode	DESIGN STRATEGY AND INNOV	ATION		'T	Р	J	С			
MDE 60	05			2	0	0	4	3			
Pre-requi	site			Syll	abus	s vei	rsio	n			
				2912	v. 1.0						
Course Object	tives										
· · · · ·		udents to create, lead and manage new products, syste	ms and services th	at have a	sus	tain	able	e			
		y, society and the environment.									
Expected Cou	Expected Course Outcome:										
		ntegrate design-led strategies into existing practice in	business, governr	nent agei	ncies	s, so	cial	1			
enterprise and	commu	nities.									
Module:1	. :	an that have no from a lair a table in a surround in sour	4 hours								
Understanding		ors that keep us from solving tasks in new and innovation	ive ways								
Module:2 Methods of cre	eating in	novative ideas	4 hours								
Wiethous of er											
Module:3			4 hours								
	nercent	ions & paradigms which enable students to "think out									
	Spercep.										
Module:4			4 hours								
	intangibl	e relevance of broadening one's perspectives in Arts A		e and Tec	hno	logy	/ to				
design.	•										
Module:5			4 hours								
Exposure to di	ifferent t	houghts and perspectives, concerns and issues in the C	Context of design.								
Module:6			4 hours								
	design, u	Iser experience, design process. Exposure to the emer		gn; Disru	ptiv	e					
technology.	0 /			0 /	1						
Modulor7			4 h arrag								
Module:7 Importance of	sustaina	ble design practices, preserving traditional practices &	4 hours	underse	rved						
communities.		ere design produces, preserving dualitishing produces e									
Module:8	Conte	emporary issues:	2 hours								
	Colle										
	Total I	Lecture hours:	30 hours								
Text Book(s)	1 T		7'1. T. '								
1. Christopher Jones, (1970). Design Methods Seeds of Human Future, Wiley, Interscience.											
Reference Bo	oks										

	VIII [®] Vellore Institute of Technology Commits be formation and such as a commit of the Control (2000)							
1.	Covey, S. (1990). The Seven Habits of Highly Effective People. Free Press; 1st edition.							
2.	2. Athvankar, Uday, (1997). Mental Imagery as a Design Tool, Cybernetics and Systems, Vol 28, No 1, Jan-Feb, 1997, pp 25-42.							
Mod	le of Evaluation: CAT / Assignment / Qui	z / FAT / Project /	Seminar					
Rec	Recommended by Board of Studies 03-03-2018							
App	Approved by Academic CouncilNo. 49Date15-03-2018							



		1	(Deemed to be University under sect	tion 3 of UGC Act, 1956)								
Course co	ode		SERVICE	DESIGN				L	Т	Р	J	С
MDE 60	06							0	0	4	4	3
Pre-requi	site						S	Syllabus version				
							~.		v.			
Course Object	ctives:						•					
The aim of thi	s course	is to make students unde	rstand the conce	ept of service	desig	n.						
Expected Cor												
Students shou	ld be abl	e to carry out innovative	service designs	through desi	gning,	prototypin	g and te	stir	ıg.			
Module:1					4 ho	urs						
Exercises to c	onnect w	with people to create value	e to the product	through marl	keting							
Module:2					4 ho	urs						
Exercises to d	esign pro	oducts with service applie	cation									
Module:3					4 ho	urs						
Exercises to d	evelop s	ervice design using visua	l explanations.									
Module:4	Module:4 4 hours											
Exercises for	designin	g services as a series of in	nteractions.		•							
Module:5					4 ho	urs						
Exercises to d	esign sei	rvices delivering positive	impact.									
Module:6					4 ho	urs						
Exercises to a	nalyze e	xisting design services										
Module:7					4 ho	urs						
The outcome	of the an	alysis to a viable design i	ntervention with	h viable prop	ositior	1.						
Module:8	Conte	mporary issues:			2 ho	urs						
	Total]	Lecture hours:			60 h	ours						
Text Book(s)												
	ickdorn,	"This is service design th	inking: Basics,	tools, cases"	, Cons	ortium Boo	ok Sales	&]	Dist	t, 20	010	
Reference Books												
1. Ramasw	amy, Ro	hit, 1996. Designing servesign and Management of										
		Assignment / FAT / Project		1 0			-					
D	11 D	.1.00.1.	02 02 0010									
Recommende Approved by			03-03-2018 No. 49	Data	<u> </u>	15-03-201	8					
Approved by	Approved by Academic Council No. 49 Date					13-03-201	0					



		VIT Vellore Inst Operand to be Univer	titute of Technology					
Course o	code	USER EXPE	RIENCE DESIGN	L	T	Р	J	C
MDE 6	007			0	0	4	4	3
Pre-requ	isite			Sylla			sio	n
Course Obje					V	.1		
To learn User	r Experience of any	Product, Application and i	its Service.					
Expected Co	ourse Outcome:							
Will be know	ving the experiential	l practices of product and se	ervices					
Module:1			4 hours					
Experiments	to learn how users i	interact with product						
Module:2			4 hours					
Resarch meth	nod tools							
Module:3	1		4 hours					
Module:5			4 hours					
Data visualiz	ation and wire fram	ing						
Module:4			4 hours					
Usability test	ing technique							
Module:5			4 hours					
Communicat	ing and implementi	ng UX deliverable						
Module:6			4 hours					
	1		I					
Module:7			4 hours					
	1		I					



	(Domal to be University under section 3 of USC Act, 1550)								
Con	Communicating and implementing UX deliverable								
		Total Lecture hours:		6	0 hours				
Tex	t Book(s)								
1.	1. William Buxton, "Sketching User Experiences: Getting the Design Right and the Right Design", Morgan Kaufmann Publishers, 2007								
Refe	erence Bo	oks							
1.	A Projec	t Guide to UX Design: For user e	experience designers i	n the field	or in the making by Russ				
	Unger, C	Carolyn Chandler							
2.	2. The Elements of User Experience: User-Centered Design for the Web and Beyond by Jesse James Garrett								
Mod	Mode of Evaluation: CAT / Assignment / Quiz / FAT / Project / Seminar								
Reco	ommended	l by Board of Studies	03-03-2018						
App	roved by A	Academic Council	No. 49	Date	15-03-2018				



Course code DESIGN WORKSHOP						Р	J	С
MDE 60)08			0	0	4	4	3
Pre-requ	isite			Sylla	ibus	s ve	rsio	n
•								
	e of this v	workshop is to let the students develop the ability to v copic formulated by the faculty members.	vork on design pro	ojects in c	olla	bora	ative	e
Expected Co	ourse Ou	itcome:						
Learn relevat	nt approa	ches, hands on experience and skill development						
Module:1			4 hours					
Design probl	ems with	practicing professionals						
Module:2			4 hours					
Printmaking	<u> </u>							
Module:3			4 hours					
Pottery and C	Ceramics							
Module:4			4 hours					
Arts Sculptur	re, Painti	ng, Story Telling and Narrative						
Module:5			4 hours					
Toy Design,	Exhibitio	on Design						
Module:6			4 hours					
Module:7			4 hours					
Wibuule.7			4 110013					
Module:8	Conte	emporary issues:	4 hours					
	Total I	Lecture hours:	60 hours					
Text Book(s)							
Reference B	ooks							
2 Robin W	2 Robin Williams, John Tollett, Pearson (2002)							



Mode of Evaluation: CAT / Assignment / Quiz / FAT / Project / Seminar								
Recommended by Board of Studies	Recommended by Board of Studies 03-03-2018							
Approved by Academic Council	No. 49	Date	15-03-2018					



Course co	ode	INTERACTION DES	IGN	L T P J C						
MDE602	24			0 0 4 4 3						
Pre-requis	site			Syllabus version						
_				v. 1.0						
1 11.1.		Course Objectives:								
	 Understanding the user-centred design process. To understand the basic Interaction Design and way it can be used in product design. 									
Expected Cou	rse Out	come:								
The students w										
		out users' requirement through proper observation	on.							
		esign concepts for different types of users.								
		ognitive process of humans in interactions. test, and design the required interactions.								
4. Ability to pi	ototype,	test, and design the required interactions.								
Module:1			6 hours							
Exercises on c	onceptua	lizing basic interactions with a product.								
Module:2			8 hours							
	onceptua	lizing cognitive aspects of interaction design.	0 110013							
		· · · · · · · · · · · · · · · · · · ·								
Module:3	0 1	1 1	8 hours							
Experiments o	n Social	and emotional interaction.								
Module:4			8 hours							
Data analysis a	and devel	lopment of interfaces.								
Module:5	and prese	entation of the data and interface design.	6 hours							
Interpretation	and prese									
Module:6			10 hours							
Developing int	terface de	esign.								
Module:7			10 hours							
Prototyping an	d constru	action	To nours							
Module:8		mporary issues:	4 hours							
Contemporary	discussion	on with the artists and designers.								
	Total I	ecture hours:	60 hours							
	Total L		00 110013							
Text Book(s)										
1. About Fa	ice 3: Th	e Essentials of Interaction Design, Alan Cooper,	Robert Reimann, Davi	d Cronin						
Reference Bo	oks									
1. Preece, Rogers and Sharp, Interaction Design: Beyond Human–Computer Interaction, John Wiley and Sons,										
Delhi, 2003.										
2. Shneiderman, Designing the User Interface: Strategies for Effective Human-Computer Interaction, (3rd Ed.), Addison Wesley, 2000.										
Addisoff westey, 2000.										



3.	3. Andrew Sears, Julie A. Jacko The Human-Computer Interaction Handbook: Fundamentals, Evolving Technologies, New York: John Wiley & Sons, 2002.								
Mod	Mode of Evaluation: Assignment / FAT / Project / Seminar								
Reco	Recommended by Board of Studies 03-03-2018								
App	Approved by Academic Council No. 49 Date 15-03-2018								



		1	(Deemed to be University under section	3 of UGC Act, 1956)						
Course c	ode		DIY DES	SIGN		I	μ T	Р	J	С
MDE 60	25					0	0	4	4	3
Pre-requi	isite					Syllabus version				
						~J11		1.0	- 010	
Course Obje	ctives:									
		he DIY concept of produ	ct design and de	velopment.						
		own DIY projects with								
		out innovative DIY prod		1						
Expected Co	urse Out	come:								
The students	will howo									
		gn furniture's and home				gy.				
		esign less complex DIY	products and pro	ducts using recycled ma	aterials					
		gn DIY games	. 1							
4. Deve Module:1	lop Lay 1	flat DIY Products out of	metal.							
		V (D. 14	6	6 hours						
Exercises to d	esign DI	Y (Do it yourself) based	furniture.							
Module:2	1			8 hours						
	osign DF	Y based home decors		o nours						
Exercises to u	esign Di	i based nome decors								
Module:3				8 hours						
	esign les	s complex DIY products		0 11001 5						
Excicises to u	csign ics.	s complex DTT products.								
Module:4				8 hours						
	l designing	DIY products using rec	veled materials	0 110013						
Excicises for	designing	, DTT products using ree	yelea materials.							
Module:5				6 hours						
Exercises to d	esign DF	Y games		0 Hours						
	eoign D1	- Sumos								
Module:6				10 hours						
	esign DF	Y Products using metal.								
	0	0								
Module:7				10 hours						
Exercise to de	sign Lay	Flat DIY Products								
Module:8	Conte	emporary issues:		4 hours						
Contemporary	discussi	on with the artists and de	esigners.	·						
	Total Lecture hours:60 hours									
Text Book(s)										
1. White Lemon, "365 Days of DIY", CreateSpace Independent Publishing Platform, 2016										
	Reference Books									
		aftivity: 40 Projects for the	ne DIY Lifestyle	", Harper Perennial, 200	06					
Mode of Evaluation: Assignment / FAT / Project / Seminar										
Recommende	Recommended by Board of Studies 03-03-2018									
Approved by Academic CouncilNo. 49Date15-03-2018										



Course co	de	CULTURE EMB	EDDED DESIGN		I	T	ΡJ	
MDE 602					0	0	4 4	1 3
Pre-requis	site				Svll	ahus	vers	ion
i i e requis	ite				Syn	V.		
Commo Obiom	4							
Course Object		of design approach to tradition and cul	hure					
			turo.					
Expected Cou	rse Out	come:						
The students w	ill have,							
		g the intercultural influence in design.						
		g the religious influence in design						
		pt to new perceptions in design.						
	standing	g the business practice with cultural con						
Module:1	ndonatan	ding the results of intercultural influence	4 hours	8				
Exercises on u	nuerstan	ang me results of intercultural influence	e in design.					
			Γ					
Module:2			4 hours	5				
Exercises on pi	redicting	the results of intercultural encounters'	influence in design.					
Module:3			4 hours	5				
	eligious	influence in design.		-				
Module:4			4 hours	8				
Use of cultural	intellige	ence in networking.						
Module:5			4 hours	2				
Experiments or	n differe	nt perceptions.	Hours	,				
1		1 1						
Module:6			2 hours	5				
Introducing but	siness p	actices with cultural constraints.						
Module:7			6 hours					
	usiness i	practices with cultural constraints.	0 HOUR	S				
Excrements on or								
Module:8	Conte	emporary issues:	2 hours	5				
Contemporary		on with the artists and designers.	÷					
 			1					
	Total I	ecture hours:	30 hou	ng				
	I Utal I	lecture nours.	50 1100	15				
Text Book(s)								
1. David Ra	izman; l	History of Modern Design, Prentice Ha	11, 2010					
2. Cross, N;	Design	Thinking: Understanding How Designed	ers Think and Work, B	erg, Oxf	ord, 2011.			
Reference Boo	oks							
		History, Oxford Journals						
		-						



Mode of Evaluation: Assignment / FAT / Project / Seminar									
Recommended by Board of Studies	03-03-2018								
Approved by Academic Council	No. 49	Date	15-03-2018						



		T	m	Б	T	C
Course code	NATURE OF MATERIALS AND PROCESSES	L	(T	Р	J	С
MDE5004		2	2	0	0	3
Pre-requisite		Sylla			rsio	n
			v.	1.0		
Course Objectives		ahiar	ina	daa	ing d	
form and c 2. To identify	ding the nature & qualities of materials and various processing techniques for a colour in newly designed products. y various kinds of material properties and their usages arious fundamental aspects of materials and the technologies use to process the		-			
Expected Course	Outcome:					
 Understan Ability in structure a 	ave, identify the properties and usage of thermoplastics and thermosetting plastics ding various selection and applications with limits & advantages of molding pr recognizing various manufacturing processes and assembly techniques with the and costing ding various industrial finishes for plastics, wood and metals with the understa	e conc	ept		ral	
Module:1	4 hours					
	e of thermoplastics, thermosetting plastics.					
<u> </u>						
Module:2	4 hours					
Process of selection	and applications of plastics for engineering and consumer products.					
Madada 2	41					
Module:3	and specific advantages of plastic molding processes.					
Design minitations	and specific advantages of plastic molding processes.					
Module:4	4 hours					
	orative techniques for plastic product, Manufacturing processes and assembly to	echni	ques	s for	•	
Module:5	4 hours					
	re and costing. Significance of form in structural strength of products. Influence	e of r	nate	rials	s an	d
Module:6	4 hours					
	For plastic, wood and metals. Properties and use of rubber, ceramics and glass.					
Module:7	4 hours					
	al materials like wood, bamboo, cane, leather, cloth, jute and paper and their use	e at ci	aft	and		
industrial levels.	in matchais like wood, bamboo, calle, leather, cloth, jute and paper and then us		an			
Module:8 Co	ontemporary issues: 2 hours					
Contemporary discussion with the artists and designers.						
Tot	tal Lecture hours: 30 hours					
Text Book(s)						



	where the second state is a se										
1.	1. Thompson R, 'Manufacturing process for design professionals', Thames and Hudson, London, 2007.										
Refe	Reference Books										
1.	Ashby, Michael, Johnson, Kara, 'Material	ls and Design: The Ai	rt and Scienc	e of Material Selection in Product							
	Design', Butterworth-Heinemann, 2002.										
2.	Garratt J, 'Design and Technology', Caml	bridge University Pre	ss, UK, 2004	1.							
Mod	le of Evaluation: CAT / Assignment / Quiz	/ FAT / Project / Sem	ninar								
Reco	Recommended by Board of Studies 17-08-2017										
App	Approved by Academic Council No. 47 Date 05-10-2017										

		Vellore Institute of 7	rechnology fectoriat 1990	
Pre-requisite Syllabus version Ourse Objectives: V.1 3. Understanding the evolution of technologies Ability to apply new design methodologies to evolve new technologies 5. Ability to use new manufacturing technologies for development of a product Expected Course Outcome: Expected Course Outcome: The students will have, 1. Ability to create real time design modification using data visualization. 2. Capability to create virtual simulations and walk throughs of various models 3. Ability to make product models using new manufacturing technologies like 3D printing and Laser cutting. 4. Generate high fidelity models with high quality renders Module:1 6 hours Real time design modification 8 hours Data visualization 9 hours Module:3 9 hours Virtual simulations 9 hours Module:4 8 hours 3D printing 10 hours CNC machining 10 hours Module:8 Contemporary issues: 4 hours Contemporary discussion with the artists and designers. 60 hours Text Book(s) 1 New Technologies - Conceived and edited by Phaidon Editors, Phaidon Design Classics, 2009	Course code	NEW TECHNOLOGI	ES FOR DESIGN	L T P J C
Course Objectives: V.1 Course Objectives: V.1 Ability to apply new design methodologies to evolve new technologies Ability to use new manufacturing technologies for development of a product Expected Course Outcome: Expected Course Outcome: The students will have. Capability to create real time design modification using data visualization. 2. Capability to create virtual simulations and walk throughs of various models Ability to create virtual simulations and walk throughs of various models 3. Ability to oreate real time design modification using data visualization. Cenerate high fidelity models with high quality renders Module:1 6 hours Real time design modification 8 hours Module:2 8 hours Data visualization 8 hours Module:3 8 hours Virtual simulations 6 hours Laser cutting 10 hours Module:6 10 hours CNC machining 4 hours Contemporary discussion with the artists and designers. 60 hours Itext Book(s) 1 I. New Technologies - Conceived and edited by Phaidon Editors, Phaidon Design Classics, 2009 1	MDE 6027			0 0 4 4 3
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The students will have,	4. Ability to	apply new design methodologies to evolve ne		
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1. New Technologies - Conceived and edited by Phaidon Editors, Phaidon Design Classics, 2009 Reference Books 1. Mass Production - Conceived and edited by Phaidon Editors, Phaidon Design Classics, 2009	To	otal Lecture hours:	60 hours	
1. New Technologies - Conceived and edited by Phaidon Editors, Phaidon Design Classics, 2009 Reference Books 1. Mass Production - Conceived and edited by Phaidon Editors, Phaidon Design Classics, 2009	Text Book(s)			
1. Mass Production - Conceived and edited by Phaidon Editors, Phaidon Design Classics, 2009	1. New Techno	logies - Conceived and edited by Phaidon Edit	ors, Phaidon Design Classics, 2	2009
				000
Mode of Evaluation: Assignment / FAT / Project / Seminar	1. Mass Produc	ction - Conceived and edited by Phaidon Edito	rs, Phaidon Design Classics, 20	009
	Mode of Evaluation	on: Assignment / FAT / Project / Seminar		

	VIT VIII VIIII VIIIIVA VIIII VIIIII VIIII VIIIII VIIIIII	Dgy 1956)	
Recommended by Board of Studies	03-03-2018		
Approved by Academic Council	No. 49	Date	15-03-2018



C		(Romate is to University under socials of UDC: Act, 1959)						
Course co MDE602		Product Detailing		L T P J C 0 0 4 4 3				
MIDE002	20							
Pre-requis	site			Syllabus version				
				1.0				
Course Objec								
		nding the fundamentals of part modelling						
		nding various aspects of product component generation	on					
3. A		manipulate a 2D drawing to a high-Fidelity model.						
Expected Cou		come:						
The students w	vill have,							
		s using modelling techniques						
		te Reverse engineering of a given component						
		make Assembly and 2d drawings of the models						
		g to make draft for mould manufacturing						
		te high fidelity model o use rapid manufacturing techniques to create protot	type					
Module:1	reacge l	o use rapid manufacturing techniques to create protot	6 hours					
Part modelling	ŗ		0 Hours					
	>							
Module:2			8 hours					
Reverse engine	eering (g	iven component part)	·					
			•					
Module:3			8 hours					
Assembly								
			01					
Module:4 2D drawing			8 hours					
2D drawing								
Module:5			6 hours					
Draft for moul	d manuf	acturing	0 Hours					
Module:6			10 hours					
High Fidelity I	Model							
Module:7	<u> </u>		10 hours					
Prototype Man	iulacturii	lg						
Module:8	Conte	emporary issues:	4 hours					
		on with the artists and designers.	4 nours					
Contemportary	aiseassi							
	Total I	ecture hours:	60 hours					
Text Book(s)								
1.								
Reference Bo	oks							
		, Plastic Part Design for Injection Molding, Hanser P	Publication, 2010					
2. Plastic pr	2. Plastic process handbook : Myer Kutz.							
3. Guide to	3. Guide to injection molding : Prabodh Bolur.							

VIT	
	Vellore Institute of Technology (Deemed to be University under section 3 of UGC Act, 1956)

(Dremat to be University mader arction 3 of UOC Act, 1956)						
. Mechanics of sheet metal forming : Z Marciniale, J L Duncan, S J Hu,						
5. Mold design : R W Pye. GE Plastic Design Guide.						
Handbook of die design : Ivan Suchy						
e of Evaluation: Assignment / FAT / Pro	oject / Seminar					
Recommended by Board of Studies 03-11-2018						
Approved by Academic CouncilNo. 53Date13-12-2018						
	Mold design : R W Pye. GE Plastic Des Handbook of die design : Ivan Suchy e of Evaluation: Assignment / FAT / Pro- pommended by Board of Studies	Mold design : R W Pye. GE Plastic Design Guide. Handbook of die design : Ivan Suchy e of Evaluation: Assignment / FAT / Project / Seminar ommended by Board of Studies 03-11-2018	Mold design : R W Pye. GE Plastic Design Guide. Handbook of die design : Ivan Suchy e of Evaluation: Assignment / FAT / Project / Seminar ommended by Board of Studies 03-11-2018	Mold design : R W Pye. GE Plastic Design Guide. Handbook of die design : Ivan Suchy le of Evaluation: Assignment / FAT / Project / Seminar ommended by Board of Studies 03-11-2018		



Course code												MUN	Act, 1956)	TIC	ON						L	Т	Р	J	С
MDE 6014																					0	0	4	4	3
Pre-requisite																				Sylla	bu	c v	orci	on	
Pre-requisite																				<u>зупа</u> v. 1.2		5 V	ersi	on	
Comme Obioati																									
Course Objectiv		ctive	lv wi	th vis	uallv	v an	nd ve	verba	allv.	·															
			•			,				-															
Expected Cours Students will be			ne:																						
1. Describ	e the t	typi										facts	are c	crea	ted.										
2. Both re-												aniat	in a th		maat		hater		anh	i a a tir	.:		A		
 Develoj objectiv 				ise of	aest	tnet	tic ji	Juag	gmen	nt, aj	ippre	eciat	ing ti	ie sj	pect	rum	betw	een	sub	jecuv	nty	an	a		
			U												1										
Module:1															4	hοι	ırs								
Exercises on Gra	aphic d	desi	gn																						
Module:2															4	hou	urs								
Exercises on typ	ograph	phy																							
Module:3															4	hou	ırs								
Exercises on exp	oressive	ve ty	pogra	aphy																					
Module:4															4	hou	ırs								
Exercises on Vis	ual nai	narrat	ives																						
Module:5															4	hou	ırs								
Exercises on bra	anding	ıg																							
	1																								
Module:6															4	hou	irs								
Exercises on dyn	namic v	e visu	ial lay	youts																					
Module:7															4	hou	ırs								
Communications	s throug	ough	tangil	ble an	d dig	gita	al m	nediu	ums	5															
Module:8	Cont	ntem	npora	ry iss	sues										4	hou	ırs								
Total Lect	ture ho	hour	s:												6() hou	urs								
Text Book(s)	naard	d 4 -	mia C1	horin	"TL		Ince	hia	Dar		D af	form	00 P-	C	:f	lacti	on D	- alex	D		n -	C	ort	ia	
1. Poppy Eva Designers I							-			-				Spo	ecifi	icatio	on Bo	ook:	Eve	erythi	ng	Gr	aph	10	
Reference Book	s																								
LATER CHECE DOOR																									

	VIIT [®] Vellore Institute of Technology Unservice to University and Section 45 (20)						
1.	Alex W. White , "The Elements of Graphic Design", (Second Edition), Allworth Press, 2011						
2. Mo	 Steven Heller and Gail Anderson, "The Graphic Design Idea Book: Inspiration from 50 Masters", Laurence King Publishing, 2016 Mode of Evaluation: Assignment / FAT / Project / Seminar 						
Rec	Recommended by Board of Studies 03-03-2018						
App	Approved by Academic Council No. 49 Date 15-03-2018						



Course co MDE 60	ode			1				
MDE 60	ouc	INTEGRATED DESIGN RESE	ARCH	L	T	Р	J	С
)15			2	0	0	4	3
Pre-requi	isite			Sylla	abus	s ve	rsio	n
				~)		1.20		
Course Objec	ctives							
This course pr								
resea 2. Broa	urch quest	earch areas together into one framework, a generic d ons together and provides support to address these i w of the generic concepts of design, design research	n a systematic way.			t lir	ıks t	the
E-masted Car								
1	n of this c 1. Deve	ourse the students researching into design, helps op a holistic understanding of the area of design rese out design research effectively and efficiently.	earch					
Module:1	Introdu	action to Design	4 hours					
				·			1	6
a Design Resear		Issues, Lack of Overview of Existing Research, La nodology.	ick of Use of Results	in Prac	ctice	e, No	eed	for
	0014	A Design Dessenth Methodology	1 4 7					
Module:2	DRM:	A Design Research Methodology	4 hours					
	Methodol tions, Gra	ogical Framework, Types of Research Within the DF phical Representation, From Reference Model to Im	RM Framework, Rep				ing	and
Introduction, I Desired Situat	Methodol tions, Gra Success C	ogical Framework, Types of Research Within the DF phical Representation, From Reference Model to Im	RM Framework, Rep				ing	anc
Introduction, I Desired Situat Measureable S Module:3	Methodol tions, Gra Success C Researe	ogical Framework, Types of Research Within the DF phical Representation, From Reference Model to Im riteria.	M Framework, Repr pact Model, Success 4 hours	Criteria	a an	d		
Introduction, I Desired Situat Measureable S Module:3 Identifying Ov Questions and	Methodolo tions, Gra Success C Researd verall Top I Hypothe	ogical Framework, Types of Research Within the DF phical Representation, From Reference Model to Im riteria.	M Framework, Repr pact Model, Success 4 hours Expectations; Clarit	Criteria	a an	d ria,	Mai	in
Introduction, I Desired Situat Measureable S Module:3 Identifying Ov Questions and	Methodolo tions, Gra Success C Researd verall Top I Hypothe irch Plan ,	ogical Framework, Types of Research Within the DF phical Representation, From Reference Model to Im riteria. Ch Clarification Process ic of Interest, Clarifying Current Understanding and ses , Criteria, Research Questions and Hypotheses; S	M Framework, Repr pact Model, Success 4 hours Expectations; Clarit	Criteria	a an	d ria,	Mai	in
Introduction, I Desired Situat Measureable S Module:3 Identifying Ov Questions and Overall Resea Module:4 Understanding Literature, Sur Interest, Form	Methodolo tions, Gra Success C Researd verall Top I Hypothe urch Plan , Descrip g Design, mmarizin nulating R	ogical Framework, Types of Research Within the Dr phical Representation, From Reference Model to Im riteria. Ch Clarification Process ic of Interest, Clarifying Current Understanding and ses , Criteria, Research Questions and Hypotheses; S Overall Research Plan	M Framework, Repr pact Model, Success 4 hours Expectations; Clarif Selecting Type of Res 4 hours teps; Reviewing Liter ng and Defining Fact	fying C search, rature, 7	a an	d ria, mul tify	Mai ating	in
Introduction, I Desired Situat Measureable S Module:3 Identifying Ov Questions and Overall Resea Module:4 Understanding Literature, Sur Interest, Form	Methodolo tions, Gra Success C Researd verall Top I Hypothe irch Plan , Descrip g Design, mmarizin, ulating R Developin,	ogical Framework, Types of Research Within the DF phical Representation, From Reference Model to Im riteria. Ch Clarification Process ic of Interest, Clarifying Current Understanding and ses , Criteria, Research Questions and Hypotheses; S Overall Research Plan tive Study I Schools of Thought, Types of DS-I ,DS-I Process St g Literature; Determining Research Focus , Identifyi esearch Questions and Hypotheses, Techniques for I	M Framework, Repr pact Model, Success 4 hours Expectations; Clarif Selecting Type of Res 4 hours teps; Reviewing Liter ng and Defining Fact	fying C search, rature, 7	a an	d ria, mul tify	Mai ating	in
Introduction, M Desired Situat Measureable S Module:3 Identifying Ov Questions and Overall Resea Module:4 Understanding Literature, Sur Interest, Form Hypotheses, D Module:5 Developing D	Methodolo tions, Gra Success C Researd verall Top I Hypothe urch Plan , Descrip g Design, mmarizin ulating R Developin Prescri vesign Sup	opical Framework, Types of Research Within the Dr phical Representation, From Reference Model to Im riteria. Ch Clarification Process ic of Interest, Clarifying Current Understanding and ses , Criteria, Research Questions and Hypotheses; S Overall Research Plan tive Study I Schools of Thought, Types of DS-I ,DS-I Process Su g Literature; Determining Research Focus , Identifyi esearch Questions and Hypotheses, Techniques for H g Research Plan for DS-I.	A Framework, Repr pact Model, Success 4 hours Expectations; Clarit Selecting Type of Res 4 hours teps; Reviewing Liter ng and Defining Fact Refining Research Qu 4 hours tematic PS Process ;	Criteria fying C search, rature, T tors and uestions	Crite Form Iden I Lin S and	d ria, mul ttify nks d	Mai atin; ing of	in g



		(Deemed to be University under section 3 of UGC A							
Evaluating Design Support Evaluation, Importance of Evaluation, Types of Evaluation in DRM, Synthesis Example,									
DS-I Versus DS-II, Existing Evaluation Approaches; Types of DS-II, Initial DS-II, Comprehensive DS-II,									
Systematic DS-II Process									
·									
Module:7	Module:7 Writing Up 4 hours								
Publishing Res	sults; Various Forms of Publication	on and Their Intent,	Overall S	tructure of a The	esis; Approaches to Help				
Structure a Th	esis, Table of Content Approach	, Presentation Appro	ach, Metl	hodical Design A	Approach, Question and				
Answer Appro	bach								
11									
Module:8	Contemporary issues:			2 hours					
	× ×								
	Total Lecture hours:			30 hours					
Text Book(s)									
1. Blessing	, LTM, Chakrabarti, A. DRM A l	Design Research Me	thodology	y, Springer-Verla	ag, London, 2009.				
Reference Bo				~					
1. Brenda I	Laurel, "Design Research Method	s and Perspectives",	MIT Pres	ss,Cambridge, 20	004				
Mode of Evaluation: CAT / Assignment / Quiz / FAT / Project / Seminar									
woue of Evaluation. CAT / Assignment / Quiz / FAT / Floject / Seminar									
Recommended	l by Board of Studies	03-03-2018							
Approved by A	Academic Council	No. 49	Date	15-03-201	8				
11		-							



Course code CREATIVITY AND INNOVATION L I T P J C MDE 6028 0			(Demid to be University maker section 3 of UGC Act, 1959)						
Pre-requisite Syllabus version Course Objectives: V1.0 This course cultivates students in creativity skills for innovative solutions to product design problems. It enhances their 'out-of-the-box' thinking for design problems. It enhances Expected Course Outcome:	Course co	ode	CREATIVITY AND INNOVAT	ION	L	T	Р	J	С
Course Objectives: V1.0 This course cultivates students in creativity skills for innovative solutions to product design problems. It enhances their 'out-of-the-box' thinking for design problems. It enhances Expected Course Outcome: • • Students will develop skills in creativity and become comfortable with 'out-of-the-box' thinking. • • Students will develop skills in creativity for innovative design solutions. Module:1 3 hours Writing poetry on topic and relating it to a product 3 hours Explore and select an appropriate metaphor and then develop products through creative expressions. 3 hours Module:3 3 hours Problem identification and task analysis through role play 3 hours Module:5 3 hours Deep Dive - Creativity method for developing new products. 3 hours Module:6 3 hours Quick mock-up development 3 hours Module:8 Contemporary issues 3 hours Text Book(5) I Cole hours' Tree Making of Young People Who Will Change the World. New York: Scribner, 2012. I Wagner, Tony. Creating Innovators: The Making of Young People Who Will Change the World. New York: Scribner, 2012. Students	MDE 60	28			0	0	4	4	3
Course Objectives: V1.0 This course cultivates students in creativity skills for innovative solutions to product design problems. It enhances their 'out-of-the-box' thinking for design problems. It enhances Expected Course Outcome: • • Students will develop skills in creativity and become comfortable with 'out-of-the-box' thinking. • • Students will develop skills in creativity for innovative design solutions. Module:1 3 hours Writing poetry on topic and relating it to a product 3 hours Explore and select an appropriate metaphor and then develop products through creative expressions. 3 hours Module:3 3 hours Problem identification and task analysis through role play 3 hours Module:5 3 hours Deep Dive - Creativity method for developing new products. 3 hours Module:6 3 hours Quick mock-up development 3 hours Module:8 Contemporary issues 3 hours Text Book(5) I Cole hours' Tree Making of Young People Who Will Change the World. New York: Scribner, 2012. I Wagner, Tony. Creating Innovators: The Making of Young People Who Will Change the World. New York: Scribner, 2012. Students	Pre-requi	site			Svlla	abus	s vei	rsia	n
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2. De Bono Edward, Lateral Thinking, Penguin (UK), 1972									
2. 2. 2. 2	2. De Bono	b Edward	l, Lateral Thinking, Penguin (UK), 1972						



3.	3. Christopher Jones. Design Methods Seeds of Human Future, Wiley, Interscience, 1970.							
Mod	Mode of Evaluation: CAT / Assignment / Quiz / FAT / Project / Seminar							
Reco	Recommended by Board of Studies 03-03-2018							
App	Approved by Academic CouncilNo. 49Date15-03-2018							



Course code		Craft, Creativity and Post-Modernism		L T P J C
MDE 601	17			0 0 4 4 3
Pre-requis	site			Syllabus version
				v. 1.0
Course Objec		dia the significance of such in Industrial design		
		nding the significance of craft in Industrial design nding various creative process in craft		
3. A	bility to	analyze various cultural roots and crafts in Indian th	adition	
Expected Cou	rse Out	come:		
The students w	ill have	,		
		g the significance of craft and creative process in In-	dustrial Design	
		ng craft to industrial design for exploring form		
		g the history of craft and various Indian traditions g the Postmodern interpretation of craft and its value	in various Indian r	narkets
Module:1		uction to Craft	4 hours	hurkets
Significance of	f craft fo	r the field of industrial design. Tracing the origins o	f industrial design t	to craft.
Module:2	Creativ	ve Process in Craft	4 hours	
Materials and J	processe	s in various crafts. Methods for connecting tradition	al crafts with presen	nt day products.
Module:3	Craft a	as a means of exploring form	4 hours	
Study of form	in bamb	oo and other craft. Explorations in form with craft as	s basis.	
		•	-	
Module:4	Cultur	al roots in craft	4 hours	
Study on the h	istory of	craft. Influences of culture on crafts		
Module:5	Crafts	and Indian traditions	4 hours	
Introduction to	post-m	odernism. Repositioning of craft in the post-modern	era. Significance of	f craft as a creative base
for current des	ign prac	tices.		
Module:6	Post_m	odern interpretation of craft	4 hours	
		-		
Introduction to for current des	-	odernism. Repositioning of craft in the post-modern	era. Significance of	f craft as a creative base
TOT CUITEIIL UES	ign prac	inces.		
Module:7	Craft d	lesign for urban and export markets	4 hours	
Blending of ne	w techn	ologies for craft design. Strategies for urban and exp	ort markets with cr	aft based post-modern
design.			010 1110110 US 11111 01	
Module:8	Conte	mporary issues:	2 hours	
Contemporary	discussi	on with the artists and designers.	•	
I	Total	acture hourse	30 hours	
	i otal I	Lecture hours:	30 hours	
Tout Deal-(c)				
Text Book(s)1.John That	ckara (F	d), Design After Modernism, (Beyond the Object),	1989.	
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Ref	Reference Books								
1.	Jencks, Charles; Post-Modernism: A New Classicism in • Art and Architecture, Academy Editions, London, 1987								
2.	Powell, Jim; Postmodernism for beginners, • Orient Longman, India, 1998.								
3.	McKim, Robert; Experiences in Visual Thinking, • Publisher: Brooks/Cole Publishing Company, 1980.								
4.	Victor Margolin (Ed), Design Discourse (History, Theory, • Cr	iticism), The	University of Chicago Press, 1989.					
Mod	Mode of Evaluation: CAT / Assignment / Quiz / FAT / Project / Seminar								
Rec	Recommended by Board of Studies 03-03-2018								
App	roved by Academic Council	No. 49	Date	15-03-2018					