

DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES (COS & POS MAPPING) OF ALL COURSES FRAMED UNDER JNTUA-R15 REGULATION

INDEX

List of all courses in MEC, offered by the institution for the regulation R15, JNTUA

S.No	Course Code	Course Name	Year & Sem
1	15A52101	Functional English	
2	15A54101	Mathematics – I	
3	15A05101	Computer Programming	
4	15A51101	Engineering Chemistry	I-I Sem
5	15A01101	Environmental Studies	I-I Sem
6	15A52102	English Language Communication Skills	
7	15A51102	Engineering Chemistry Lab	
8	15A05102	Computer Programming Lab	
9	15A52201	English for Professional Communication	
10	15A54201	Mathematics – II	
11	15A03201	Material Science and Engineering	
12	15A56101	Engineering Physics	I II Com
13	15A03101	Engineering Drawing	I-II Sem
14	15A03202	Material Science and Engineering Lab	
15	15A56102	Engineering Physics Lab	
16	15A99201	Engineering & IT Workshop	
17	15A54301	Mathematics - III	
18	15A52301	Managerial Economics & Financial Analysis	
19	15A01308	Mechanics of Solids	
20	15A03301	Engineering Drawing for Mechanical Engineers	II I Com
21	15A03302	Engineering Mechanics	— II-I Sem
22	15A03303	Thermodynamics	
23	15A01309	Mechanics of Solids Lab	
24	15A03304	Computer Aided Drafting Lab	
25	15A54401	Probability and Statistics	
26	15A99301	Basic Electrical and Electronics Engineering	
27	15A03401	Machine Drawing	
28	15A03402	Kinematics of Machines	
29	15A03403	Thermal Engineering – 1	— II-II Sem
30	15A03404	Manufacturing Technology	
31	15A03405	Thermal Engineering Laborator	
32	15A03406	Manufacturing Technology Laboratory	

RAMIREDDY SUBBARAMI REDDY ENGINEERING COLLEGE

S.No	Course Code	Course Name	Year & Sem
33	15A01510	Fluid Mechanics and Hydraulic Machines	
34	15A03501	Thermal Engineering - I	
35	15A03502	Dynamics of Machinery	
36	15A03503	Machine Tools	
37	15A03504	Design of Machine Members - I	III-I Sem
38	15A03505	Entrepreneurship (MOOCS-I)	
39	15A01511	Fluid Mechanics and Hydraulic Machines Laboratory	
40	15A03508	Machine Tools Laboratory	
41	15A99501	Audit course – Social Values & Ethics	
42	15A03601	Operations Research	
43	15A03602	Design of Machine Members – II	
44	15A03603	Heat Transfe	
45	15A03604	Finite Element Method	
46	15A03605	Metal forming Process	III-II Sem
47	15A03606	Non Conventional Source of Energy	III-II Sem
48	15A03609	Heat Transfer Laboratory	
49	15A03610	Computer Aided Engineering Laboratory	
50	15A52602	Advanced English Language Communication	
50	13A32002	Skills (AELCS) Laboratory	
51	15A52601	Management Science	
52	15A03701	Automobile Engineering	
53	15A03702	CAD/CAM	
54	15A03703	Metrology and Measurements	
55	15A03704	Refrigeration and Air – Conditioning (CBCC-II)	IV-I Sem
56	15A03708	Automation and Robotics (CBCC-III)	
57	15A03710	CAD/ CAM Laboratory	
58	15A03711	Metrology and Measurements Laboratory	
59	15A03801	Industrial Engineering (MOOCS-II)	
60	15A03805	Gas Turbines and Jet Propulsion (MOOCS -III)	
61	15A03807	Comprehensive Viva Voce	IV-II Sem
62	15A03808	Technical Seminar	
63	15A03809	Project Work	

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RAMIREDDY SUB ENGINEERIN		CO	OURS	E OU	TCO	MES	& MA	PPIN	IG OI	F COs	with	POs &	PSOs	
Engineering Through I		S	SEM:	I-I			R	eg: R	15		AY	: 2017-2	2018	1
Course	Code:	Course	Name	FUN	CTIC	NAL	ENG	LISH]		Р	C
15A5	2101	Prerequ	uisite:N	IONE								3 1	0	3
				COUI	RSE O	UTC	OMES	(COs)						
CO No.	COURS	E OUT	COM	(E										
2101.1	Acquire and inter	0	-	-	-	-			• •	· .				,
2101.2	Develop	oral co	mmui	nicatio	n skil	ls in	Englis	h to s	peak	fluent	ly in	various	acade	mic
	and soc	ial situa	tions.	(BTL	3)									
2101.3	Identify	deviant	use	of E	nglish	both	in sp	oken	and	writte	n fori	ms, and	impr	ove
	awaren	ess of it	s in sc	ience	and te	chnol	ogy. (BTL2))					
2101.4	Understa	nd the	impor	rtance	of re	ading	for 1	ife, ar	nd car	eer a	nd the	ereby de	evelop	an
	inter	est for it	t. (BT	L2)										
2101.5	Demonst	trate fur	ndame	ntal sk	cills re	quired	l for c	ritical	think	ing. (E	BTL2)			
Mapping	of Course	Outcome	s (COs) with	Progra	m Out	comes	(POs) d	& Prog	ram Sj	pecific	Outcome	s (PSO	s)
00						РО							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
2101.1									3	3	2	3		
2101.2									2	3	2	3		
2101.3									3	3				
2101.4									3	2	2	3		
2101.5											2	2		
		•			0	•		0	3	3	2	3		
AVG	0	0	0 ation. 3	0	0	0	0	0	3	3	3	3	<u> </u>	

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E.			N	H-16, K	adanuth	ala, Bog	ole Man	dal, Kava	ali- 524 1	142, S.P.S	S.R. Nello	re, A.P.)		
No.	\geq											CIEN POs &		
RAMIREDDY SUB ENGINEERIN	BARAMI REDDY IG COLLEGE							31 1 1 1	10 0.			2016-2		•
Engineering Through I		S	EM:	I-I			R	eg: R	15			2010 2	-017	
Course	Code:	Course	Name:	: Matl	nemat	ics – I					I		Р	0
15A4	4101	Prereq	uisite: 1	None							3	1	0	3
				COU	RSE C	OUTC	OMES	(COs)					
CO No.	COURS	SE OUI	COM	Έ										
4101.1	Solve the	First, Sec	ond and	d Highe	er order	D.Es a	ınd App	olication	ns of Fi	irst Ord	er D.E (BTL3)		
4101.2	Attain the deflection		-		tions o	of L.D.I	Es like	Mecha	nical &	k Electi	rical Os	cillatory	circuit	s an
4101.3	Familiar	ize with	function	ons of	severa	al varia	ables v	vhich i	is usef	ùl in C	Optimiz	ations.	(BTLI	_6)
4101.4	Determine	e importa	int tools	s of cal	culus in	Highe	r Dimer	nsions (Multip	e Integ	rals) (BT	LL5)		
4101.5	Become fa	amiliar w	th the a	applica	tions of	vector	calculu	us to En	gineer	ing Prol	blems. (BTL6)		
Mapping	g of Course	Outcom	es (COs	s) with	Progra	ım Out	comes	(POs)	& Prog	gram S	pecific	Outcome	es (PSC)s)
<u> </u>						PO							PS	50
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
4101.1	3	2	2	2	-	-	-	-	-	-	-	2	2	2
4101.2	3	2	2	2	-	-	-	-	-	-	-	2	2	2
4101.3	2	3	3	2	-	-	-	-	-	-	_	2	2	3
4101.4	2	3	2	2	-	-	-	-	-	-	-	1	2	2
	3	3	2	2	-	-	-	-	-	-	-	2	2	2
4101.5						1		1	1	1				1 4

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and the second	1		·	•	,			TUA. Ar dal, Kava						
	Ž	D	EPAR	TME	NT OI	F CON	IPUT	ER SC	CIENC	CE AN	D EN	GIN	EERI	NG
RAMIREDDY SUBB ENGINEERING	ARAMI REDDY COLLEGE		COU	RSE (OUTC	OMES	& M	APPIN	GOF	COs v	vith P	Os &	PSOs	\$
Engineering E Through Inc			SEM	: I –	Ι]	Reg: R	.15		AY:	2017	2018	
Course (mpute	r Prog	ramm	ing					Г P	-
15A05	101	Prer	requisit	e:Nil								3	1 -	3
					DURSE	E OUTO	COME	S (COs)					
CO No.	COU	RSE (DUTC	OME										
5101.1	Analyz	ze overv	view of c	compute	r progra	mming	(BTL4)							
5101.2	Unders	stand va	rious sta	atements	s in C ar	nd discu	ss the ar	rays, sti	ngs, fun	ctions (BTL2)			
5101.3	Illustra	te point	ters and	underst	anding t	he scope	e of fun	ctions. (l	BTL2)					
5101.4	Develo	p the co	ommand	l line arg	guments	and stru	uctures ((BTL 3)						
5101.5	Unders	stand the	e file ha	ndling f	unction	s and pro	e-proces	sor dire	ctives. (BTL2)				
Mapping of	Course	Outcon	mes (CC)s) with	Progra	am Outo	comes (POs) &	Progra	m Speci	ific Out	tcomes	(PSOs)
COs						Р	0						Р	SO
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2
5101.1	3	2	2	2	-	-	-	-	-	-	-	2	2	3
5101.2	3	3	3	3	-	-	-	-	-	-	-	2	2	3
5101.3	3	3	2	3	-	-	-	-	-	-	-	3	2	2
5101.4	2	3	3	2	-	-	-	-	-	-	-	3	3	2
5101.5	2	3	3	2	-	-	-	-	-	-	-	3	2	2
AVG	3	3	3	2	-	-	-	-	-	-	-	3	2	2
3/2/1 Indicat	tes Stren	gth of C	Correlati	on. 3-Hi	igh, 3-M	ledium a	and 1-Lo	ow		1		1	1	<u>. </u>

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		RA	MIRE	DDY	SUB	BAR	AMI	REDD	ÝE	NGINE	ERIN	e coi	TEG	E
(Same										001: 2015 C 142, S.P.S.I				
	2	1								ES AN			ES	
RAMIREDOY SUBBARA	MI REDDY									F COs				
Engineering Exce Through Innova	llence	S	EM:	I-II]	Reg: R1	5		AY:	2017-2	018	
Course		Course	Name	: Engi	neerii	ng Ch	emist	ry			L	Т	Р	С
15A51	101	Prerequ	uisite:]	None							3	0	0	3
				MRS	E OUI	ГСОМ	IFS (C	(0, 0)						
CO No.	COURSE	OUTCO						.03)						
1101.1	Differentiate			d and	soft w	vater.(L3)							
1101.2	Discuss BL	INA-S a	nd BU	NA-N	Elasti	romer	s (L2)							
1101.3	Understand	the ele	ctroch	emica	l sour	ces of	ener	gy. (L3)						
1101.4	Discuss abou	ıt solid, li	quid, g	gaseou	s fuels	(L2)								
1101.5	Understand	the princ	iples c	of lubri	cants a	and CN	Ts (L2)						
Mappin	g of Course Ou	tcomes (C	COs) w	ith Pro	gram (Outcon	nes (P	Os) & Pr	ogran	n Specific	e Outco	mes (PS	Os)	
						РО			-				PS	0
Cos	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1101.1	3	3	3	2	2	2			2		3	2	3	
1101.2	2	2	3	3		1	1					2		2
1101.3	3	2	3	2			3		1				3	
1101.4	2	2	2	2							1		2	2
1101.5	2	1	1	2		1							2	
AVG	3	2	3	3	2	3	2	####	2	####	2	2	3	2
3/2/1 Indicates S	Strength of Corre	lation. 3-1	High, 2	-Mediu	m and	1-Low				- -	. <u> </u>			•

		f	RAMI	REDI	DYS	UBBA	RAN	AI RE	DDÝ	ENGI	NEERI	NG CO	OLLE	SE	
6				· • •	•					O 9001: 20 524 142, S.		ed Institutio	0 n.		
	X		DE									CIEN	CES		
RAMIREDDY SUBBAI ENGINEERING O	RAMI RED DY OLLEGE		COU	JRSE	OUT	COM	ES &	MAP	PING	OF CO	Os with	POs &	: PSOs	5	
Engineering Ex Through Inno		S	EM:	I-I			F	Reg: R	15		AY:	2017-20	18		
Course	e Code:	Course	Name	: Envir	onmei	ntal Stu	ıdies				Ι	L T	Р	(
15A01101		Prereq	uisite:]	None							3	6 0	0	3	3
				COU	JRSE	ουτς	OME	S (COs)						
CO No.	COURSI	E OUTC	OME												
1101.1	Understa	nd the va	arious	natura	al resc	ources	(L2)								
1101.2	Discribe a	bout the	Biodi	versity	/ and	Ecosys	tem (I	L2)							
1101.3	Discuss a	bout the	pollut	ion as	pects	(L3)									
1101.4	To know	about the	e socia	l issue	es rela	ted to	envir	onmer	it and	thir pro	otectior	n acts (L	1)		1
1101.5	Discribe a	bout the	popu	lation	explo	sion a	nd we	lfare p	rogra	mme (L	2)				
Марр	ing of Course	Outcome	s (COs)	with F	Program	m Outc	omes (POs) &	Progr	am Spec	ific Outo	comes (P	SOs)		
						PO]	PSO	
Cos	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
1101.1	3	2	3	2	3		2		2				2	2	
1101.2	2	2	3	2		2	3						3		2
1101.3	3	2	3	2			2					3	3	2	
1101.4	2	2	3	2			2	2						3	
1101.5	2	2	3	2	3		3					3		3	
AVG	3	2	3	2	3	2	3	2	2	####	####	3	3	3	2

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S)	~	Г)EPA											CES	
	BARAMI REDDY G COLLEGE		OURS												
Engineering Through Ir		S	SEM:	I-II			R	eg: R	15		AY	: 2	017-2	018	
Course	Code:	Course COMN				FOR F	PROF	ESSIO	NAL]	L	Т	Р	C
15A5	2201	Prerequ	isite:N	NONE							í	3	1	0	3
				COU	RSE O	UTC	OMES	(COs))						
CO No.	COURS	E OUT	'COM	E											
	Particip	ate effe	ctivel	y in c	lebate	es on	mode	ern co	rpora	atism	and l	iste	en, ai	nd sp	eal
2201.1	well in I	English	in gro	up di	scussi	ons. (BTL3)							
2201.2	Recall t	he alter	nativ	e sour	ces o	f enei	gy by	, liste	ning,	summ	arizi	ng	and r	ewrit	ting
		s. (BTL							Ċ.			U			
2201.3	Develop	report	writi	ng ski	lls. (B	TL3)									
2201.4	Interpre	t charts	and t	tables	. (BTI	.2)									
2201.5	Commu thereby			•				•	-	oing	requi	red	con	npete	nc
) with	Progra	m Out	comes	(POs) d	& Prog	gram Sj	pecific	Ou	tcome	s (PSO	s)
Mapping	g of Course	Outcome	s (COs	y with										PS	
	g of Course	Outcome	s (COs) with		PO		1	n	1	ſ	1		10	0
Mapping COs	g of Course	Outcome	s (COs	4	5	PO 6		8	9	10	11		12	1	
COs				4				8	9 3	10 3	11 2				
				4				8	-				2		0 2
COs 2201.1 2201.2				4				8	3	3	2		2		[
COs 2201.1 2201.2 2201.3				4				8	3	3	2 - 2		2 2 3		[
COs 2201.1				4				8	3 2 3	3 3 3	2		2		

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				•		·	ted to JN ole Mano							n.	
Z	2						F HU								
RAMIREDDY SUE ENGINEERIN	BARAMI REDDY VG COLLEGE	C	OURS	SE OU	JTCO	MES	& M A	APPIN	IG O	F CO	s with	PC)s &	PSOs	
Engineering Through I	g Excellence nnovation	S	EM:	I-II			R	eg: R	15		AY	: 20	017-2	2018	
Course	Code:	Course	Name	Matl	nemati	ics – I	I]	L	Т	Р	(
15A5	4201	Prereq	uisite:]	None								3	1	0	
				COU	RSE C	OUTC	OMES	(COs)						
CO No.	COURS	SE OUI	COM	Έ											
4201.1	Understa	nd the us	sage of	Lapla	ce Tra	nsform	ns. (BT	L2)							
4201.2	Evaluate	the Four	ier Ser	ies exp	pansio	1 of pe	riodic	functio	ons. (B	STL5)					
4201.3	Understa	nd the us	age of	Fourie	er Tran	sform	s. (BTI	L2)							
4201.4	Formulat	e/Solve/	Classif	v the	solutio	one of		Fauati	one ar	nd also	find	the	solu	tions	6
4201.4	Dimensio									iu aisc	, ind	the	solu	uons (JI .
4201.4		onal Way	ve equa	itions a	and He	at equ	ations.						solu		
4201.5	Dimensio	onal Way	ve equa	tions a	and He	at equans. (BT	ations. TL2) Outco	(BTL	5)						
4201.5	Dimensio Understa	onal Way	ve equa	tions a	and He	at equans. (BT	ations. TL2) Outco s)	(BTL	5)						nes
4201.5	Dimensio Understa	onal Way	ve equa	tions a	and He	at equans. (BT ogram (PSO	ations. TL2) Outco s)	(BTL	5)			pec		Dutcor	nes
4201.5 Mapping COs	Dimensio Understa of Course	nd the us Outcon 2	ve equa sage of nes (Cu 3	tions a Z-Tra Os) wi	nsform	at equates at equates (BT) as	TL2) Outco s)	(BTL)	5) POs) &	& Prog	gram S	pec	cific C	Dutcor	nes 50
4201.5 Mapping COs 4201.1	Dimensio Understa of Course 1 3	e Outcorr 2 2	re equa sage of nes (Co 3 2	Tions a Z-Tra Os) wi	nd Hennsform th Pro 5 -	at equates at equates (BT) as	TL2) Outco s)	(BTL)	5) POs) &	& Prog	gram S	pec	cific () 12 1	Dutcor	nes 50
4201.5 Mapping COs 4201.1 4201.2	Dimensio Understa of Course	nd the us Outcon 2	ve equa sage of nes (Cu 3	tions a Z-Tra Os) wi	nd Hennsform	at equates at equates (BT) as	TL2) Outco s)	(BTL)	5) POs) &	& Prog	gram S	pec	cific C	PS	mes SO
4201.5 Mapping COs 4201.1	Dimensio Understa of Course 1 3	e Outcorr 2 2	re equa sage of nes (Co 3 2	Tions a Z-Tra Os) wi	nd Hennsform th Pro 5 -	at equates at equates (BT) as	TL2) Outco s)	(BTL)	5) POs) &	& Prog	gram S	pec	cific () 12 1	PS 1 2	mes SO
4201.5 Mapping COs 4201.1 4201.2	Dimension Understand of Course 1 3 2	e Outcon 2 2 3	re equa sage of nes (Cu 3 2 2	Tra Z-Tra Os) wi 4 2 2	nd Hennsform th Pro 5 -	at equates at equates (BT) as	TL2) Outco s)	(BTL)	5) POs) & 9 - -	& Prog	gram S	pec	12 1	PS 1 2 2 2	mes 50
4201.5 Mapping COs 4201.1 4201.2 4201.3	Dimension Understa of Course 1 3 2 3	e Outcom	<pre>/e equa sage of nes (C) 3 2 2 2 2</pre>	A242222	nd Hennsform th Pro 5	at equates at equates (BT) as	TL2) Outco s)	(BTL)	5) POs) & 9 - - -	& Prog 10	gram S	pec	12 1	Ps 1 2 2	

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HOD/ CSE

RAMIREDDY SUBBARAMI REDDY
ENGINEERING COLLEGE

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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

Engineering Excellence Through Innovation	SEM: I-II	Reg: R15	А	Y: 2	2017-2	2018	
Course Code:	Course Name: MATERIAL	SCIENCE AND ENGINEERING		L	Т	Р	С
15A03201	Prerequisite: None			1	0	0/2	2

COURSE OUTCOMES (COs)

CO No.	COURS	E OUI	COM	E										
3201.1	get know	ledge o	n bond	s of so	lids an	d knov	ving th	ie crys	tallizat	tion of	metals			
3201.2	able to c of equilit state trar	orium di	agrams	s isom		•	•	•					• •	•
3201.3	able to I alloys of				•	opertie	es of a	ll cast	irons	, steels	s and I	Non-ferr	ous m	eta
3201.4	able to hardenin		e met	hods (of diff	erent	heat t	reatm	ents i	.e. anr	nealing	, norma	lizing	and
3201.5	understa machine compone	and str	ucture	of co	mpon	ents, 1	These	compo	osite r	nateria	als help	os to de	evelop	the
Mapping	alloys	Outcome	s (COs)) with l	Progra	m Outo	comes	(POs) d	& Prog	gram Sj	pecific	Outcome	es (PSO	s)
		Outcome	s (COs)) with l	Progra	m Outo PO		(POs) d	& Prog	gram Sj	pecific(Outcome	es (PSO PS	- -
Mapping COs		Dutcome	s (COs)) with 1	Progra 5			(POs) &	& Prog 9	gram Sj 10	pecific (Outcome		<u> </u>
	of Course (PO							PS	0
COs 3101T.1	of Course (PO 6				10	11		PS 1	0 2 1
COs 3101T.1 3101T.2	of Course (1 3					PO 6 2				10 3	11		PS 1 3	
COs 3101T.1 3101T.2 3101T.3	of Course (1 3 3	2	3	-	5	PO 6 2 2	7 -	8	9 -	10 3 3	-	12 - -	PS 1 3 3	
COs	of Course (1 3 3 3	2	3	-	5	PO 6 2 2 2 2	7 - -	8	9 - -	10 3 3 3	-	12 - -	PS 1 3 3 3	0

3/2/1 Indicates Strength of Correlation. 3-High, 3-Medium and 1-Low

Course Faculty Sign



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DEPARTMENT OF HUMANITIES AND SCIENCES

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

SEM: I-II	Reg: R15	А	Y: 2	017-2	2018	
Course Name: Enginee	ring Physics		L	Т	Р	С
Prerequisite:NONE	3	0	0	3		
	Course Name: Enginee	Course Name: Engineering Physics	Course Name: Engineering Physics	Course Name: Engineering Physics L	Course Name: Engineering PhysicsLT	Course Name: Engineering PhysicsLTP200

COURSE OUTCOMES (COs)

CO No.	COURSE OUTCOME	
6101.1	Articulate interference, diffraction (BTL3), Analyze (BTL4). Device laser (BDevelop optic fiber (BTL6)	3TL4),
6101.2	Interpret crystallography (BTL2), Use ultrasonics (BTL3).	
6101.3	Illustrate quantum mechanics (BTL1) and solve electron theory(BTL3).	
6101.4	Categorize semiconductors and magnetic materials (BTL4).	
6101.5	Explain superconductivity (BTL1) and Connect nanomaterials (BTL4)	
Mapping	of Course Outcomes (COs) with Program Outcomes (POs) & Program Specific Outcomes	s (PSOs)
	РО	PSO

COr						PO							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
6101.1	2	3	2	2	3	1	-	_	-	—	—	1	2	3
6101.2	3	2	3	2	2	3	-	_	-	—	—	1	3	3
6101.3	2	3	2	1	2	2	-	_	_	—	-	2	3	3
6101.4	3	3	3	1	3	1	-	_	_	—	_	1	2	2
6101.5	3	2	2	2	2	2	-	-	I	—	—	3	2	2
AVG	3	3	3	2	3	3						2	3	3
3/2/1 Indicat	tes Strength	of Correl	ation. 3	3-High,	2-Med	lium an	d 1-Lov	N						

Course Faculty Sign (R.M.SHARMA)

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astan.	F	T.M.I										Institutio		IE.
C.A.			N	H-16, K	adanutha	ala, Bogo	ole Mano	lal, Kava	ali- 524 1	142, S.P.S	S.R. Nello	re, A.P.)		
	ARAMI REDDY											NEER		
ENGINEERING Engineering E	COLLEGE		UUKS	E OU		VIES	& NIA	APPIN	IG UI	F COs	s with .	POs &	PSUs)
Through Inn			SEM:					eg: R			AY:	2021-	2022	-
Course	Code:	Course	Name	ENG	INEE	RINO	G DR /	AWIN	<u>IG</u>		I		P	C
15A03	3101	Prereq	uisite:]	None							1	0	0/2	2
				COUI	RSE O	UTCO	OMES	(COs))					
CO No.	COUR	SE OUT	ГСОМ	IE										
3101T.1	Draw v	arious c	urves a	applied	d in er	iginee	ring.							
3101T.2	Show p	rojectio	ns of p	oints,	lines,	plane	s and	solids	graph	ically.				
3101T.3	Draw th	ne devel	opmen	t of su	irfaces	s of so	olids.							
3101T.4	Use con	nputers	as a dr	afting	tool.									
3101T.5	Draw is	sometric	and o	rthogr	aphic	drawi	ngs us	ing C.	AD pa	ackage	es.			
Mapping	of Course	Outcome	es (COs) with]	Progra	m Out	comes	(POs)	& Prog	gram Sj	pecific (Dutcom	es (PSO	s)
60						РО)						PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3101T.1	3	1	1	-	-	-	-	-	-	3	-	-	3	1
3101T.2	3	3	2	-	-		-	-	-	3	-	-	3	1
3101T.3	3	1	1	-	-		-	-	-	3	-	-	3	1
3101T.4	3	3	3	-	-	-	-	-	1	3	-	-	3	1
3101T.5	3	2	3	1	-	-	-	-	2	3	-	-	3	1
	3	2	2	-	-	-	-	-	1	3	- 1	-	3	1

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(B. RADHA KRISHNA)

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RAMIREDDY SUBB	ARAMI RED DY	D	EPA	RTM	IENT	ГOF	ME	CHA	NIC	AL E	NGI	NEER	ING	
Engineering Through In	Excellence	C	OURS	E OU	TCO	MES	& M A	PPIN	IG O	F COs	with	POs &	PSOs	3
ratorya ta	10421104	S	EM:	II-I			R	eg: R	15		AY:	2018-	19	
Course	Code:	Course	Name	MATH	HEMAT	TICS-III					Ι	T	Р	C
15A5	4301	Prereq	uisite:]	NONE	2						3	1	0	3
														·
				COUI	RSE O	UTC	OMES	(COs))					
CO No.	COUR	SE OUT	COM	E										
4302.1	able to a	nalyze er	ngineer	ing pro	oblems	using	the co	ncepts	of Ma	trices a	and Nu	merical	metho	ds.
4302.2	able to a	nalyze er	ngineer	ing pro	oblems	using	the co	ncepts	of Ma	trices a	and Nu	merical	metho	ds.
Mapping	of Course	Outcome	es (COs) with]	Progra	m Out	comes	(POs) a	& Prog	ram Sj	oecific (Dutcome	es (PSC)s)
	,				0	PO		× /		, <u> </u>				50
COs			T		1				1	1				
	1	2	3	4	5	6	7	8	9	10	11	12	1	2
4302.1	2	2	2	1	-	-	-	-	-	-	-	1	2	2
4302.2		_											2	2
	2	2	2	1 1	- 0	- 0	-	- 0	- 0	- 0	- 0	1	2	2

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RAMIREDDY SUBBARAMI REDDY ENGINEERING COLLEGE

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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

Through Innovation	SEM: II-I	Reg: R15	A	V: 2	018-1	9	
Course Code:		l Economics and Financial An		L	T	Р	С
15A52301	Prerequisite: None			3	1	0	3

COURSE OUTCOMES (COs)

CO No.	COURSE OUTCOME
2301.1	Get the basic inputs of Managerial Economics and demand concept and able to estimate the future demand of a product. (BTL2)
2301.2	Explain the concepts of cost and production and can calculate the breakeven point.(BTL2)
2301.3	Learn how to take effective decisions under various market situations and also about different forms of business organizations.(BTL2)
2301.4	Get the inputs of accounting concepts and analyze the financial statements.(BTL4)
2301.5	Know how to take an effective investment decision.(BTL2)

Mapping of Course Outcomes (COs) with Program Outcomes (POs) & Program Specific Outcomes (PSOs)

60						РО							PS	50
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
2301.1	2	-	-	-	2	1	-	-	-	-	-	1	-	2
2301.2	3	-	1	-	-	2	-	-	-	-	-	2	-	2
2301.3	2	-	-	-	-	1	-	-	-	-	-	1	-	2
2301.4	2	-	-	-	2	1	-	2	-	-	-	1	-	2
2301.5	2	-	1	-	2	1	-	-	-	-	-	1	-	2
AVG	2	-	1	-	2	1	-	2	-	-	-	1	-	2

	EN .	R	AMI	RED	DY S	UBB		MI] LLE		DY F	ENGI	NEER	RING	
	SA A											l Institutio ore, A.P.)	n.	
RAMIREDDY SUBBA	RAMI REDBY	D	EPA	RTM	[EN]	Г О F	ME	CHA	NIC	AL E	NGI	NEER	ING	
Engineering En Through Inno	cellence	C	OURS	E OU	TCO	MES	& MA	PPIN	IG OI	F COs	with	POs &	PSOs)
Through this		S	SEM:	II-I			R	eg: R	15		AY	: 2018-	19	
Course	Code:		C	Course	Name:	Mech	anics	of Sol	ids		I		Р	С
15A01	308	Prerequ	uisite: l	None								3 1	0	3
	1			COU	RSE O	UTCO	OMES	(COs))					
CO No.	COURS	SE OUI	COM	IE										
1308 .1	Evaluate	stresses	and stu	rains (I	BTL5)									
1308.2	To drav conditior	v the	SF ar	· · · ·		Igrams	for	variou	is be	ams ı	under	differen	nt load	ling
1308 .3	Determin and sprin	e the re	sistanc	e and	deforr	nation	in ma	chine	memb	ers sul	ojected	to torsi	onal lo	bads
1308 .4	Analyze	and desi	gn thin	, thick	cylind	lers. (E	BTL4)							
1308.5	Analysis	of stress	es in c	urved	bars. (1	BTL4)	I							
Mapping	of Course (Outcome	s (COs) with l	Progra	m Outo	comes	(POs)	& Prog	gram Sj	pecific	Outcome	es (PSO	IS)
<i></i>						РО							PS	O
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1308.1	3	3	3	3	-	-	-	-	3	-	-	-	3	1
1308 .2	3	3	3	3	-	-	-	-	3	-	-	-	3	1
1308 .3	3	3	3	3	-	-	-	-	3	-	-	-	3	1
1308 .4	3	3	3	3	-	-	-	-	3	-	-	-	3	1
1308 .5	3	3	3	3	-	-	-	-	3	-	-	-	3	1
AVG	3	3	3	3	-	-	-	-	3	-	-	-	3	1
3/2/1 Indicate	es Strength	of Correl	ation. 3	-High,	3-Med	ium and	d 1-Lov	V						

and a	FI	R	AMI	RED	DYS	SUBE		AMI LLE		DY I	ENG	INEE	RING	r
												d Instituti ore, A.P.)	0 n.	
RAMIREDDY SUBB	ARAMI REDDY	Γ	DEPA	RTN	1EN	ГOF	ME	СНА	NIC	AL E	NGI	NEER	RING	
ENGINEERING Engineering I												POs &		5
Through Inc	novation	5	SEM:	II-I			R	eg: R	15		AY	: 2018-	2019	
Course	Code:	ENG	GINEF	ERINC	G DRA			R ME	CHAN	NICAI	.]	LT	Р	C
15A0	3301	Prereq	uisite:	None								3 1	3	3
											·			•
				COU	RSE C	OUTC	OMES	(COs)					
CO No.	COUR	SE OUT	ГСОМ	ſE										
1308 .1	Drawir	ng 2D an	d 3D c	liagrai	ns of	variou	s obje	cts.						
1308 .2	Learnii	ng conve	ntions	of Dr	awing	, whic	h is a	n Univ	versal	Langu	lage of	f Engin	eers.	
1308 .3	Draftin	g projec	tions c	of poin	its, pla	nes ar	nd soli	ds.						
Mapping	g of Course	e Outcom	es (COs	s) with	Progra	ım Out	comes	(POs)	& Prog	gram S	pecific	Outcom	es (PSC)s)
						РО)						PS	50
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
	-									_	-			
1308 .1	3	3	-	-	3	-	-	-	3	3	3	1	3	1
1308 .1 1308 .2		3	-	-	3 3	-	-	-	3	3	3	1	3	1
	3		-	-				-				1 1 1	_	



3302.1

3302.2

3302.3

3302.4

3302.5

AVG

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RAMIREDDY SUBBARAMI REDDY ENGINEERING COLLEGE

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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

Intough Innovation	SEM: II-I	Reg: R15	А	Y: 2	2018-1	.9	
Course Code:	Course Name: ENGIN	EERING MECHANICS		L	Т	Р	С
15A03302	Prerequisite: None			3	1	0	3

				COUI	RSE O	UTCO	OMES	(COs))					
CO No.	COURS	E OUT	СОМ	E										
3302.1	Resolve f	forces a	nd cou	uples	in mec	chanic	al syst	tems.	(L3)					
3302.2	Identify th	ne frictio	nal foi	rces ar	nd its ir	nfluend	ce on e	quilibr	rium. (L3)				
3302.3	Find the c	entre of	gravit	y and	mome	nt of ir	nertia f	or vari	ious ge	eometr	ic shap	pes (L3)		
3302.4	Develop e	quation	s for d	ifferer	it moti	ons. (L	.4)							
3302.5	Determin (L4)	e the di	splace	ement	, veloc	city an	d acce	elerati	on rel	ations	in dyr	namic sy	stems	
Mapping	of Course C	outcome	s (COs)) with]	Progra	m Out	comes	(POs) a	& Prog	gram Sj	pecific	Outcome	s (PSO	s)
CO						РО							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2

3/2/1 Indicates Strength of Correlation: 3-High, 2-Medium and 1-Low

Course Faculty Sign

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and a	E	RAI	AIREI	DDY	SUBE	BAR	AMI I	REDD	YEN	IGIN	EERIN	ie co	LLEC	ΞĒ
			· • •	•		·					Certified S.R. Nelloi		n.	
RAMIREDDY SUBB	ARAMI REDDY COLLEGE	D								·	NGIN		ING	
Engineering I Through Inc	xcellence	C	OURS	E OU	TCO	MES	& M A	APPIN	IG OI	F COs	s with l	POs &	PSO s	3
Through the	INTERIOR	S	EM:	II-I			R	leg: R	15		AY:	2018-	19	
Course	Code:	Cours	e Nan	ne: T	hermo	odyna	mics				L	Т	Р	С
15A03303	}	Prereq	uisite:]	None							3	1	0	3
				COUI	RSE O	UTC	OMES	(COs)					
CO No.	COUR	SE OUT	COM	Έ										
3302.1		tand the into wor			of the	rmody	nami	c prop	erties	relate	d to co	nversio	n of h	eat
3302.2		the laws ssors and		-			oilers	, heat	pump	s, refri	igerator	rs, heat	engin	nes,
3302.3	Utilize	steam p	roperti	es to o	design	stean	ı base	d com	poner	ts (B)	ΓL4)			
3302.4	Introdu	ce the co	oncept	of ava	ilable	energ	y for	maxin	num w	ork co	onversi	on. (B	TL5)	
3302.5	Analyze	e thermo	dynam	nic rela	ations	and a	ir stan	dard c	cycles	(BTI	A)			
Mapping	of Course	Outcome	s (COs) with]	Progra	m Out	comes	(POs)	& Prog	ram S	pecific (Outcome	es (PSC)s)
						PO							PS	50
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3302.1	1	2	2	1	1	1	1	1	1	1	-	2	3	1
3302.2	2	2	2	1	1	1	1	1	1	1	-	2	3	1
3302.3	3	3	3	3	2	1	-	1	1	1	-	2	3	1
3302.4	3	2	2	2	2	1	-	1	1	1	-	2	3	1
3302.5	2	2	3	1	1	1	1	1	1	1	-	2	3	1
AVG	3	3	3	2	2	1	1	1	1	1	-	2	3	1

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Contraction of the second											Certified S.R. Nellor		n.	
AMIREDDY SUBBI	ARAMI REDDY	D									NGIN		ING	
Engineering E Through Inn	xcellence	C	OURS	E OU	TCO	MES	& M A	PPIN	IG 0]	F COs	s with I	POs &	PSOs	•
integn inn	ovation	5	SEM:	II-I			R	leg: R	15		AY:	2018-2	219	
Course	Code:			Comp	Cou outer A	urse N Aided		ting L	ab		L	Т	Р	(
15A03	3304	Prereq	uisite:	None							0	0	4	2
				COU	RSE O		MES		<u> </u>					
	COUD	SE OU	FCON		NSE U		JVIES)					
CO No.		strate th			nal rei	nreser	tation	s of r	nateri	als and	1 mach	ine co	mone	nte
3404.1	(BTL2)			ventio.		presen	lation	5 01 1	liateria	ans and	1 macm		mpone	-110
3404.2		iveted, w				•		•		· ·				
3404.3		olid mod							•		1L0)			
2404.4	Generat	e solid m	odels (of mac	hine pa	arts and	1 asser	nble th	em. (I	31L6)				
3404.4	Transla	te 3D ass	emblie	s into 2	2D dra	wings.	(BTL	4)						
3404.5	Create 1	nanufact	uring d	rawing	g with o	dimens	ional a	and ge	ometri	c tolera	ances. (I	BTL6)		
Mapping	of Course	Outcome	es (COs) with	Progra	m Out	comes	(POs)	& Prog	gram Sj	pecific C	outcome	es (PSC)s)
COs				-		PO		-					PS	50
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	
3404.1	3	3	-	-	3	-	-	-	3	3	3	1	3	
3404.2	3	3	-	-	3	-	-	-	3	3	3	1	3	-
3404.3	3	3 3 3 3 1									3]		
3404.4	3	3	-	-	3	-	-	-	3	3	3	1	3	-
3404.5	3	3	-	-	3	-	-	-	3	3	3	1	3]
	3	3	-	-	3	-	1		3	3	3	1	3	1

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											Certified S.R. Nello		n.	
AMIREDDY SUBB	ARAMI REDDY	D									NGIN		ING	
ENGINEERING Engineering E	xcellence	C	OURS	E OU	TCO	MES	& M A	PPIN	IG OI	F COs	with l	POs &	PSOs	5
Through Inn	iovation	S	SEM:	II-I			R	eg: R	.15		AY:	2018-1	19	
Course	Code:		Cou	rse Na	ame: 1	Mecha	nics c	of Soli	ds Lal)	L	Т	Р	0
15A0	1309	Prereq	uisite: l	None							0	0	4	2
				COU	RSE O	UTC	OMES	(COs))					
CO No.	COUR	RSE OUT	ГСОМ	IE										
1305P.1	Unders	stand the	stress-	strain	behav	viour (of diff	erent	materi	als.(B	TL2)			
1305P.2	Identif	y the diff	erence	e betw	een co	ompre	ssion	and te	nsion	testing	g.(BTL	1)		
1305P.3	Evalua	te the ha	rdness	of dif	ferent	mater	rials.(l	BTL5))					
1305P.4	Correla	ate the el	astic c	onstar	nts of t	the ma	terials	s(B7	ГL2)					
Mapping	of Course	e Outcome	s (COs) with	Progra	m Out	comes	(POs)	& Prog	ram Sj	pecific (Outcome	es (PSC)s)
<i></i>						PO)						PS	50
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1305P.1	3	3			-	-	-	-	3	3	-	-	3	1
1305P.2	3	3			-	-	-	-	3	3	-	-	3	1
1305P.3	3	3			-	-	-	-	3	3	-	-	3]
12026.2											-	-	3	1
1305P.3	3	5												

S											Certified S.R. Nello	l Institutio re, A.P.)	on.	
RAMIREDDY SUBI	SARAMI REDDY	D	EPA	RTM	IEN	r of	ME	CHA	NIC	AL E	NGI	NEER	RING	
Engineering Through In	Excellence	C	OURS	E OU	TCO	MES	& M A	PPIN	IG OI	F COs	with	POs &	PSOs	5
Through th	10421101	SEM: II-II Reg: R15 A								AY	: 2018-	19		
Course	Code:	Course	Name:	Proba	bility a	and Sta	atistics				Ι	L T	Р	C
15A5	4401	Prereq	uisite: I	Basic E	quatio	ns & B	Basic P	robabil	ity		3	1	0	3
4401 :2		the probl al Quality • Outcome	Contro	ol and (Queuir	ng theo	bry and	d draw	appro	priate	inferer	ices.		
Mapping						P0							PS	50
										10	11	12	1	_
Mapping COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
	1	2	3 2	4	5	6	7	8	9	-	-	12	2	2 1
COs				-	5	-			-	-			-	

aner.	5	RAN	URE	DDY	SUBI	SAR/	₹MI I	₹£DD	DY EN	IGIN	EERIN	ie co	LLEC	i£
	Y.										Certified S.R. Nello	Institutio 'e, A.P.)	n.	
RAMIREDOY SUBB	ARAMI REDBY	D	EPA	RTM	IEN	ГOF	ME	CHA	NIC	AL E	NGIN	IEER	ING	
Engineering Through In	Excellence	COURSE OUTCOMES & MAPPING OF COs with POs									POs &	PSOs	;	
rate again		SEM: II-II Reg: R15 AY: 2								2018-	19			
Course	Code:		Course Name: BASIC ELECTRICAL AND ELECTRONICS ENGINEERINGL								Т	Р	C	
15A9930	1	Prerequ	uisite:]	None							3	0	0	3
				COUI	RSE O	UTC	OMES	(COs)					
CO No.	COUR	SE OUT	COM	Έ										
9301 .1	basics of	of Electri	cal Ci	rcuits,	Netw	ork th	eoren	ns, two	o port	netwo	rks. (B	TL2)		
9301.2	basics o	f, DC gene	erators	& mo	tors, T	ransfo	rmers,	Induc	tion m	otors a	nd Alte	rnators	. (BT]	L4)
Mapping	g of Course	Outcome	s (COs) with [Progra	m Out	comes	(POs)	& Prog	gram Sj	pecific (Jutcome	es (PSC)s)
						PO							PS	50
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
9301 .1	3	2	2	1	1	1	1	1	1	1	-	2	3	1
9301.2	3	2	2	1	1	1	1	1	1	1	-	2	3	1
AVG	3	3	2	2	2	1	1	1	1	1	_	2	3	1

and a	PEN I	K		KĽD		JUDI		LLE					RING	r
											5 Certified S.R. Nello		on.	
AMIREDDY SUBB	ARAMI REDDY	D	EPA	RTN	IEN'	Г ОГ	ME	СНА	NIC	AL E	NGIN	NEER	ING	
Engineering		C	OURS	SE OU	JTCO	MES	& M A	APPI	IG O	F CO	s with	POs &	PSO	5
Through Ini	lovation	S	EM:	II-II			R	eg: R	15		AY:	2018-	19	
Course	Code:	Course Name: Machine DrawingLT								Р	C			
15A0	3401	Prerequ	uisite:]	None				0			3	1	0	3
				COU	RSE C	OUTC	OMES	(COs)					
	~ ~ ~ ~ ~ ~	SE OUT	COV	ſE										
CO No.			OUTCOME ill acquire skills to draft on a drawing sheet without much effect. Student											
CO No. 3401:1	Student		quire	skills			a dra	wing s	sheet	withou	ut mucl	n effec	t. Stud	lent
	Student are advi These of manufa	s will a	equire isit ma s can	skills achine be ea	shop. asily	prepai	ed ar	nd un	dersto	od by	both	the p	eople	in
3401 :1	Student are advi These of manufac shop. able to and still	s will ac sed to v drawing:	cquire isit ma s can industr the fin e any	skills achine be ea ry and nal pro useful	shop. asily the c oduct prod	prepar consur by pro uct se	red ar ners to	nd und bo. St	dersto udents units	od by s are a	v both advised	the po to vis	eople it mac s/supp	in chin
3401 :1 3401 :2 3401 :3	Student are advi These of manufac shop. able to and still	s will ac ised to v drawing cturing produce produce l produce eents to l	cquire isit ma s can industr the fin e any be mad	skills achine be ea ry and nal pro useful de loca	shop. asily l the c oduct l prod ally or	prepar consur by pro uct se nly.	red ar ners to ocurin rving	nd und bo. St g the effect	dersto udents units t ively.	od by s are a from v It is n	both advised various aot nece	the po to vis source essary	eople it mac s/supp that al	in chin olier l th
3401:1 3401:2 3401:3 Mapping	Student are advi These of manufac shop. able to and still compon	s will ac ised to v drawing cturing produce produce l produce eents to l	cquire isit ma s can industr the fin e any be mad	skills achine be ea ry and nal pro useful de loca	shop. asily l the c oduct l prod ally or	prepar consur by pro uct se nly.	red ar ners to ocurin rving comes	nd und bo. St g the effect	dersto udents units t ively.	od by s are a from v It is n	both advised various aot nece	the po to vis source essary	eople it mac s/supp that al	in chin olier 1 th
3401 :1 3401 :2 3401 :3	Student are advi These of manufac shop. able to and still compon	s will ac ised to v drawing cturing produce produce l produce eents to l	cquire isit ma s can industr the fin e any be mad	skills achine be ea ry and nal pro useful de loca	shop. asily l the c oduct l prod ally or	prepar consur by pro uct se ily. m Out	red ar ners to ocurin rving comes	nd und bo. St g the effect	dersto udents units t ively.	od by s are a from v It is n	both advised various aot nece	the po to vis source essary	eople it mac s/supp that al	in chin llier l th Ds)
3401:1 3401:2 3401:3 Mapping	Student are advi These of manufac shop. able to and still compon	s will ac ised to v drawing cturing produce produce l produce ents to l Outcome	cquire isit ma s can industr the fin e any be mac es (COs	skills achine be ea ry and nal pro useful de loca s) with	shop. asily the c oduct prod ally or Progra	prepar consur by pro uct se ily. m Out PO	red ar ners to ocurin rving	ad und bo. St g the effect: (POs)	dersto udent: units t ively. & Prog	od by s are a from v It is n gram S	both advised various ot nece pecific (the po to vis source essary	eople it mac s/supp that al es (PSC	in chin llier l th Ds)
3401:1 3401:2 3401:3 Mapping COs	Student are advi These of manufac shop. able to and still compone of Course	s will ac ised to v drawing cturing produce produce produce ents to l Outcome	cquire isit ma s can industr the fin e any be mac es (COs	skills achine be ea ry and nal pro useful de loca s) with	shop. asily j the c oduct prod ally or Progra 5	prepar consur by pro uct se ily. m Out PO	red ar ners to ocurin rving	ad und bo. St g the effect: (POs)	dersto udent: units t ively. & Prog	od by s are a from v It is n gram S 10	both advised various ot nece pecific (11	the po to vis source essary Dutcom	eople it mac s/supp that al es (PSC PSC 1	in chin lier l th Ds) SO 2 1
3401:1 3401:2 3401:3 Mapping COs 3401.1	Student are advi These of manufac shop. able to and still comport of Course	s will ac ised to v drawing cturing produce produce produce produce outcome 2 3	cquire isit ma s can industr the fin e any be mac es (COs	skills achine be ea ry and nal pro useful de loca s) with 4 -	shop. asily j the c oduct prod ally or Progra 5 3	prepar consur by pro uct se ily. m Out PO	red ar ners to ocurin rving	ad und bo. St g the effect: (POs)	dersto udent: ively. & Prog 9 3	od by s are a from v It is n gram S 10 3	y both advised various tot nece pecific (11 3	the porto vision of the po	eople it mac s/supp that al es (PSC PS 1 3	in chin olier l th

and a	SEI	R	AMI	RED	DY S	SUBE		MI I		DY F	ENG	INI	EER	ING	r
										01: 2015 142, S.P.S				1.	
AMIREDDY SUBB	ARAMI REDDY	D	EPA	RTM	IENT	Г О F	ME	СНА	NIC	AL E	NGI	NE	ER	ING	
Engineering I	COLLEGE	C	OURS	E OU	TCO	MES	& M A	APPIN	IG O	F COs	with	PC)s &	PSOs	5
Through Inr	novation	S	EM: I	II-II			R	leg: R	15		AY	: 20	018-1	9	
Course	Code:	Cou	ırse Na	me: K	INEN	IATI(CS OI	F MA	CHIN	IERY]	L	Т	Р	C
15A03	3402	Prerequ	uisite: l	None								3	1	0	3
				COLU											
	COUP	SE OUT			KSE U		JNIES	(COs))						
CO No.		erstandi			nts of	differ	ent of	mech	anier	with	lower	r na	ire a	nd hie	The
3402.1	pairs.(B					unici		meet	a111511	1 VV IUII	10 W C	r pa	ins a		5110
3402.2	· ·	e knowl	edge o	of diffe	erent t	ypes of	of stra	ight li	ne mo	otion n	necha	nisr	n and	l stee	ring
	Ŭ	echanisn		-											
3402.3		an in de	-		-		-	-			•				
		t points				hanis	ms us	ing di	fferen	nt metl	hods(rela	ative	veloc	city
2402.4		ineous n		· ·	,	0								11.00	
3402.4	-	the k		-		terent	gear	profi	les a	nd ca	lculat	ıng	the	diffe	ren
3402.5		ters of g and ana				nrof	ila for	diffo	ront to	10 00 0	f follo		ra on	dvor	iou
5402.5		ins.(BTI		merer	it can	i pioi		unter	lent ty	pes o		Jwe	is all	u vai	iou
Mapping	of Course	Outcome	s (COs) with]	Progra	m Out	comes	(POs)	& Prog	gram Sj	pecific	Out	tcome	s (PSC)s)
						PO)							PS	50
COs	1	2	3	4	5	6	7	8	9	10	11		12	1	2
3402.1	3	3	-	-	-	-	-	-	3	-	3		-	3	1
3402.2	3	3	-	-	-	-	-	-	3	-	3		-	3	1
3402.3	3	3 3 - 3 -								-	3	1			
	3	3	-	-	-	-	-	-	3	-	3		-	3	1
3402.4															
3402.4 3402.5 AVG	3 3 3	3	-	-	-	-	-	-	3 3	-	3 3		-	3	1



RAMIREDDY SUBBARAMI REDDY ENGINEERING COLLEGE

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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

INTORGN INNOVATION							
	SEM: II-II	Reg: R15	А	Y: 2	018-1	.9	
Course Code:	Course Name: Therma	l Engineering – 1		L	Т	Р	С
15A03403	Prerequisite: None			3	1	0	3

COURSE OUTCOMES (COs)

CO No.	COURS	E OUT	СОМ	Ε										
3403.1	To under	stand	the W	orking	, Princ	ciples	of I.C	. engir	nes. (BTL2	2)			
3403.2	To teach	combus	stion p	roces	s in SI	and C	CI eng	ines.	(BTL	4)				
3403.3	To introd	o introduce different types of compressors. (BTL5)												
3403.4	To familia turbines		-	of the	ermody	ynamio	c cycle	es used	in ste	am po	wer pl	ants and	gas	
3403.5	To impar condition		-	on the	work	ing of	nozzl	es, tur	bines,	refrig	eratio	n and ai	r	
Mapping	of Course C	Dutcome	s (COs)) with I	Progra	m Outo	comes ((POs) d	& Prog	ram Sj	pecific	Outcome	s (PSO	s)
CO						РО							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3403.1	3	2	2	1	1	1	1	1	1	1	-	2	3	
3403.1 3403.2	3	2 2	2	1	1	1	1	1	1	1	-	2	3	
						_								
3403.2	3	2	2	1	1	1	1	1	1	1		2	3	
3403.2 3403.3	3	2 3	2	1	1	1	1	1	1	1	-	2	3	,

3/2/1 Indicates Strength of Correlation: 3-High, 2-Medium and 1-Low

Course Faculty Sign

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											Certified S.R. Nello	Institution re, A.P.)	1.	
RAMIREDDY SUBB/	ARAMI REDDY	D	EPA	RTN	IENT	ГОГ	ME	CHA	NIC	AL E	NGIN	NEER	ING	
Engineering E Through Inn	xcellence	C	OURS	E OU	TCO	MES	& M A	PPIN		F COs	s with]	POs &	PSOs	
Intough Inn	ovation	S	EM:	II-II			R	leg: R	15		AY:	2018-1	9	
Course	Code:		Cou	irse Na	me: M	anufac	cturing	Techn	ology		L	T	Р	С
15A03	3404	Prerequ	uisite:]	None							3	1	0	3
											1			
				COU	RSE O	UTC	OMES	(COs))					
CO No.	COURS	SE OUI	ГСОМ	1E										
3404 .1	Understa useful p												ls to	
3404 .2	Identify	and ana	alyze v	various	s weld	ling ar	nd met	al cut	ting o	peratio	ons(BT	L1)		
3404 .3	Apply th drawing		0			0	-				-	g Proces	sses,	
3404 .4	. Understand proc					g proo	cesses	like f	orgin	g, exti	rusion,	equipn	nent u	sed
3404 .5	Identify	various	plasti	c part	s man	ufactu	ring to	echniq	ues a	nd the	ir meth	ods(BT	Ľ6)	
Mapping	of Course	Outcome	s (COs) with]	Progra	m Out	comes	(POs) d	& Prog	gram Sj	pecific (Outcome	s (PSO	s)
						PO)						PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3404 .1	3	1	-	-	3	1	1	-	1	-	-	2	3	1
3404 .2	3	1	-	-	3	1	1	-	1	-	-	2	3	1
3404 .3	3	1	-	-	3	1	2	-	1	-	-	2	3	1
3404 .4	3	1	-	-	3	1	2	-	1	-	-	2	3	1
3404 .5	3	1	-	-	3	1	2	-	1	-	-	2	3	1
AVG	3	1	-	-	3	1	2	-	1	-	-	2	3	1
3/2/1 Indicat	tes Strength	of Correl	ation. 3	-High,	3-Med	ium an	d 1-Lov	N						



RAMIREDDY SUBBARAMI REDDY ENGINEERING COLLEGE

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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

	SEM: II-II	Reg. R15	А	Y: 2	018-1	9	
Course Code:	Course Name: Therma	al Engineering Laboratory		L	Т	Р	С
15A03405	Prerequisite: None			0	0	4	2

COURSE OUTCOMES (COs)

CO No.	COURSE OUTCOME
3401P.1	To Explain different working cycles of engine (L1)
3401P.2	To Describe various types of combustion chambers in IC engines (BTL3)
3401P.3	To Illustrate the working of refrigeration and air conditioning systems (BTL4)
3401P.4	To Evaluate the Heat Balance Sheet of IC engine. (BTL5)

Mapping of Course Outcomes (COs) with Program Outcomes (POs) & Program Specific Outcomes (PSOs)

CO-						РО							PS	50
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3401P.1	1	2	2	1	1	1	1	1	1	1	-	2	3	1
3401P.2	2	2	2	1	1	1	1	1	1	1	-	2	3	1
3401P.3	3	3	3	3	2	1	-	1	1	1	-	2	3	1
3401P.4	3	2	2	2	2	1	_	1	1	1	-	2	3	1
AVG	3	3	3	2	2	1	1	1	1	1	-	2	3	1

Course Faculty Sign

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	5									01: 2015 42, S.P.S				•	
RAMIREDDY SUBBA	RAMI REDBY	D								AL E				NG	
ENGINEERING Engineering E	xcellence									F COs					
Through Inn	ovation	S	EM: I	I-II			R	eg: R	15		AY	: 2018	3-1 9	9	
		Course	Name	e: Man	ufactu	Iring To		U		brv					
Course	Code:	course						-87		. ,	1	L T	•	Р	С
15A03	406	Prerequ	isite: 1	None							(0 0		4	2
				COUI	RSE O	UTCO	OMES	(COs)							
CO No.	COURS	E OUT	COM	E											
3406 .1	Understa	and the	makin	g of p	attern	s and	calcul	ation (of its a	allowa	nces(I	BTL1))		
3406 .2	Prepare					0	dersta	nd the	maki	ng of l	nallow	parts	lik	ke bot	tles
	by the bl	ow mou	ılding	mach	ine(B'	TL1)									
3406 .3	Understa			g of m	etals l	by we	lding _l	proces	s, and	l its he	at affe	ected z	zon	e on	
	weldmen		<i>'</i>												
3406 .4	Understa universa			0				with	the l	help o	of per	meabi	lity	y me	ter,
Mapping	of Course (Dutcome	s (COs)) with]	Progra	m Out	comes	(POs) a	& Prog	gram Sj	pecific	Outcor	nes	(PSO	s)
						РО								PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12		1	2
3406 .1	3	1	-	-	3	1	-	-	2	1	-	2		3	1
3406 .2	3	1	-	-	3	1	-	-	2	1	-	2		3	1

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Course Faculty Sign

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3/2/1 Indicates Strength of Correlation. 3-High, 3-Medium and 1-Low

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HOD/MECH

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(state		R	AMI	RED	DY S	SUBE		MI I		DY E	NGIN	IEER	RING			
	9									01: 2015 (42, S.P.S.)			n.			
RAMIREDDY SUBBA	RAMI REDDY	D								AL EN			ING			
ENGINEERING Engineering E										F COs						
Through Inn	ovation	S	EM:	III-I			R	eg: R	15		AY:	2019-2	2020			
Course	Code:	Course	Name	: Fluid	l Mec	hanic		0		achine	S L	Т	Р	C		
15A01510		Prereq	uisite:]	None							3	1	0	3		
	1			COUI	RSE O	UTCO	OMES	(COs))							
CO No.	COUR	SE OUT	ГСОМ	IE												
1510 .1	Familia	rize bas	ic term	ns usec	l in flu	uid me	echani	cs (B]	ΓL1).							
1510 .2	Unders	Understand the principles of fluid statics, kinematics and dynamics (BTL1) Understand flow characteristics and classify the flows and estimate various losses in flow														
1510 .3					s and	classif	y the fl	ows ai	nd esti	mate va	rious lo	osses in	flow			
1510 .4	Analyze	rough channels (BTL1) nalyze characteristics for uniform and non-uniform flows in open channels (BTL4)														
1510 .5	Design	different	types of	of turb	ines, c	entrifu	gal and	l multi	istage	pumps.	(BTLA)				
Mapping	of Course	Outcome	s (COs) with]	Progra	m Out	comes	(POs)	& Prog	ram Sp	ecific O	utcome	es (PSO	s)		
						PO							PS	0		
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2		
1510 .1	3	3	-	-	-	1	-	1	1	-	-	2	3	1		
1510 .2	3	3	-	-	-	1	-	1	1	-	-	2	3	1		
1510 .3	3	3	-	-	-	1	-	1	1	-	-	2	3	1		
1510 .4	3	3 3 1 - 1 1 2										2	3	1		
1510. 5	3	3	-	-	-	1	-	1	1	-	-	2	3	1		
	3	3		1	r -	1		1	1	T		2	3	1		



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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

Infough Innovation										
	SEM: III-I									
Course Code:	Course Name: Therma		L	Т	Р	С				
15A03501	Prerequisite: None			3	1	0	3			

COURSE OUTCOMES (COs)

								× /						
CO No.	COURS	E OUT	СОМ	E										
3501.1	To under	stand	the W	orking	g Princ	ciples	of I.C	. engir	nes. ((BTL2	2)			
3501.2	To teach	combus	stion p	roces	s in SI	and C	CI eng	ines.	(BTL	4)				
3501.3	To introd	uce diff	erent t	ypes o	of com	presso	rs. (B	TL5)						
3501.4	To familia turbines		-	of the	ermody	ynamio	c cycle	es used	l in ste	am po	wer pl	lants and	gas	
3501.5	To impar condition		-	on the	work	ing of	nozzł	es, tur	bines,	refrig	eratio	n and ai	r	
Mapping	of Course C	Dutcome	s (COs)) with l	Progra	m Outo	comes	(POs) d	& Prog	ram Sj	pecific	Outcome	s (PSO	s)
						РО							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3501.1	3	2	2	1	1	1	1	1	1	1	-	2	3	1
3501.2	3	2	2	1	1	1	1	1	1	1	-	2	3	1
3501.3	3	3	1	3	2	1	-	1	1	1	-	2	3	1
3501.4	3	2	2	2	2	1	-	1	1	1	-	2	3	1
3501.5	3	2	1	1	1	1	1	1	1	1	-	2	3	1
AVG	3	3	2	2	2	1	1	1	1	1	-	2	3	1

3/2/1 Indicates Strength of Correlation: 3-High, 2-Medium and 1-Low

Course Faculty Sign

HOD/MECH

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	×										Certified R. Nello	Institutio re, A.P.)	n.			
RAMIREDDY SUBB	ARAMI RED DY											NEER				
Engineering Through Ini		CO	DURS	E OU	TCO	MES	& M A	PPIN	IG OI	F COs	with	POs &	PSOs	;		
		SI	EM:	III-I			R	eg: R	15		AY:	2019-2	2020			
Course	Code:	Cours	e Nan	ne: Dy	namic	s of M	achine	ery			Ι	, T	Р	C		
15A0	3502	Prerequ	uisite:]	None							3	1	0	3		
				COU	RSE O	UTCO	OMES	(COs))							
CO No.	COURS	SE OUT	COM	Έ												
3502.1	Understa	Understand the effect of reactive gyroscopic couple on the stability of vehicles (BTL2)														
3502.2	Understa	Understand the power lost and power transmitted due to friction (BTL2)														
3502.3	Identify	dentify and correct the unbalances of rotating body (BTL1)														
3502.4	Reduce	lentify and correct the unbalances of rotating body (BTL1) educe the magnitude of vibration and isolate vibration of dynamic system														
3502.5	Determi	ne dime	nsions	of Go	overno	ors for	speed	l contr	ol .(B	TL1)						
Mapping	of Course	Outcome	s (COs) with l	Progra	m Out	comes	(POs) &	& Prog	ram Sj	pecific (Outcome	es (PSC)s)		
CO.						РО							PS	50		
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2		
3502.1	3	2	2	-	-	-	-	-	-	1	-	1	3	1		
3502.2	3	2	2	-	-	-	-	-	-	1	_	1	3	1		
3502.3	3	3	1	-	-	-	-	-	-	1	-	1	3	1		
3502.4	3	2	2	-	-	-	-	-	-	1	-	1	3	1		
3502.5	3	2	1	-	-	-	-	-	-	1	-	1	3	1		
	3	3	2	-	1			1	ł	1	1 1	1	3	1		

(See		R	AMI	RED	DY S	SUBB		MI I LLE		DY F	ENGI	NEER	RING	
	5			•		, ,					Certified S.R. Nello	l Institutio ore, A.P.)	n.	
RAMIREDDY SUBBA	RAMI REDBY	D	EPA	RTM	IENT	ГOF	ME	CHA	NIC	AL E	NGI	NEER	ING	
Engineering E Through Inn	xcellence	C	DURS	E OU	TCO	MES	& M A	PPIN	IG O	F COs	s with	POs &	PSOs	
Intougn Inn	0441101	S	EM: I	II-I			R	eg: R	15		AY	: 2019-2	2020	
Course	Code:	Cour	se Na	ame:	Macl	hine 7	Fools				I	T	Р	С
15A03	3503	Prerequ	uisite: I	None								3 1	0	3
													1	J
				COUI	RSE O	UTCO	OMES	(COs)						
CO No.	COURS	SE OUT	COM	E										
3503 .1	Choose of	cutting p	process	es and	l varia	bles. (13) .Re	elate to	ool we	ar and	tool li	fe. (11)		
3503 .2	Calculate	e the ma	chinin	g para	meter	s for d	ifferen	t macl	hining	proce	sses. (l	5)		
3503 .3	Identify	methods	to gei	nerate	differ	ent typ	es of s	surface	es. (13))				
3503 .4	Explain	work-ho	lding	require	ements	s. (12)								
3503 .5	Design j	igs and t	fixture	s. (16)										
Mapping	of Course	Outcome	s (COs)) with]	Progra	m Outo	comes	(POs) &	& Prog	gram Sj	pecific	Outcome	s (PSO	s)
						РО							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3503 .1	3	-	-	-	3	1	-	-	1	-	-	2	3	1
3503 .2	3	-	-	-	3	1	-	-	1	-	-	2	3	1
3503 .3	3	-	-	-	3	1	-	-	1	-	-	2	3	1
3503 .4	3	-	-	-	3	1	-	-	1	-	-	2	3	1
3503 .5	3	-	1	-	3	1	-	-	1	-	-	2	3	1
	3	-	1	-	3	1	-	-	1	-	-	2	3	1
3/2/1 Indicat	es Strength	of Correl	ation. 3	-High,	3-Med	ium and	d 1-Lov	V						



RAMIREDDY SUBBARAMI REDDY ENGINEERING COLLEGE

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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

Through Innovation	SEM: III-I	Reg: R15	A	Y: 2	2019-2	20	
Course Code:	Course Name: DESIG	N OF MACHINE MEMBE	CRS-I	L	Т	Р	С
15A03504	Prerequisite: None			3	1	0	3

	COURSE OUTCOMES (COs)
CO No.	COURSE OUTCOME
3504 :1	capable to apply design procedures using theories of failure for different elements.
3504 :2	o design simple components under cyclic loading using Goodman's and Soderberg's criterions.
3504 :3	able to design riveted joints with different configuration, boiler shell joint design and eccentric loading design of riveted joints.
3504 :4	able to design cotter joint, knuckle joint and shafts.

3504:5 able to design various rigid and flexible shaft couplings.

Mapping of Course Outcomes (COs) with Program Outcomes (POs) & Program Specific Outcomes (PSOs)

CO.						PO							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3504 .1	3	2	2	-	-	-	-	-	-	1	-	1	3	1
3504 .2	3	2	2	-	-	-	-	-	-	1	-	1	3	1
3504 .3	3	3	1	-	-	-	-	-	-	1	-	1	3	1
3504 .4	3	2	2	-	-	-	-	-	-	1	-	1	3	1
3504 .5	3	2	1	-	-	-	-	-	-	1	-	1	3	1
	3	3	2	-	-	-	-	-	-	1	-	1	3	1

Course Faculty Sign

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												d Instituti ore, A.P.)	o n.	
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Engineering I		C	OURS	E OU	TCO	MES	& M A	PPIN	IG OI	F COs	with	POs &	: PSOs	5
Through Inr	iovation	S	EM:	III-I			R	eg: R	15		AY	: 2019-	2020	
Course	Code:	Course	e Name	: FLU		-	NICS ES LAI		HYDF	RAULI		T	Р	С
15A0151	1	Prerequ	uisite: l	None							() 0	4	2
CO No.	COUR	SE OUT			RSE O	OUTCO	DMES	(COs))					
1511 .1	principle	orming thes of disc	harge 1	neasur	ring de	vices a	and hea	id loss	due to	sudde	n contr	raction		
1511 .2	Î	tand the b			•	· ·		i	1			,		
1511 .3	Analysiz	ze hydrau	ilic ma	chines	(BTL	13)								
Mapping	of Course	Outcome	s (COs) with]	Progra	m Out	comes	(POs)	& Prog	ram Sj	pecific	Outcom	es (PSC)s)
						РО)						PS	50
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
			1	l				1	1	_		2		1
1511 .1	3	3	-	-	-	1	-	1	1		-	2	3	1
1511 .1 1511 .2	3	3	-	-	-	1	-	1	1	-	-	2	3	1
		-	-	-	-	-	-	-	-	-	-		_	-

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RAMIREDDY SUBB	ARAMI REDDY	D		,				,		,		NEER	ING		
Engineering E												POs &		\$	
Through Inn	0441104	S	SEM:	III-I			R	leg: R	15		AY:	2019-2	20		
Course	Code:	Cours	e Nam	e: Mac	hine T	ools La	aborat	ory			I	, T	Р	C	
15A03	3508	Prereq	uisite:	None							0	0	4	2	
				COU	RSE O	OUTCO	OMES	G (COs))						
CO No.	COUR	SE OUT	ГСОМ	1E											
3508 .1	Identify	y techniq	ues to	miniı	nize tl	he erro	ors in	measu	iremer	nt(BTI	L1)				
3508 .2	Identify	y method	ls and	devic	es for	measu	ireme	nt of le	ength,	angle,	, gear a	& thread	d		
	Identify methods and devices for measurement of length, angle, gear & thread parameters, surface roughness and geometric features of parts (BTL1) Understand working of lathe, shaper, planner, drilling, milling and grinding machines.														
3508 .3	Unders (BTL2)		rking o	of lath	e, shaj	per, pl	anner	, drilli	ng, m	illing a	and gri	nding n	nachir	nes.	
3508 .4	Compre	ehend sp	eed ar	nd feed	d mecl	hanisn	ns of 1	nachii	ne too	ls. (B7	TL5)				
3508 .5	Estimat	te machi	ning ti	imes f	or ma	chinin	g ope	rations	s on m	achine	e tools	(BTL2)			
Mapping	of Course	Outcome	es (COs) with	Progra	m Out	comes	(POs)	& Prog	gram Sj	pecific (Outcome	s (PSC)s)	
						PO)						PS	50	
COs					_		_		_	10					
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	
3508 .1	3	2	-	-	3	1	1	-	-	-	-	2	3	2	
3508 .2	3	1	-	-	3	1	2	-	-	-	-	2	3	1	
3508 .3	3	1	-	-	3	1	2	-	-	-	-	2	3	1	
3508 .4	3	1	-	-	3	1	2	-	-	-	-	2	3	1	
3508 .5	3	1	1	-	3	1	-	-	-	-	-	2	3	1	
		1		1	3	1	2	1	1	l			3	1	

B.Tech III – II Semester (ME)

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AMIREDDY SUBB	ARAMI REDDY COLLEGE	D	DEPARTMENT OF MECHANICAL ENGINEERING												
Engineering E	xcellence	C	OURS	E OU	TCO	MES	& M A	PPIN	IG O	F COs	with	POs &	PSOs	\$	
Through the	101211011	SE	SEM: III-II Reg: R15 AY: 20							: 2019-	019-2020				
Course	Code:	Course	Name	Opera	ations	Resear	rch]	L T	Р	0	
15A03	3601	Prereq	uisite:]	None								3 1	0	3	
				COUI	RSE O	UTCO	OMES	(COs))						
CO No.	COURS	SE OUT	COM	E											
3601 :1	Develop	mathema	mathematical models for practical problems. (13)												
3601 :2	Apply lin	linear programming to transportation problems. (13)													
3601 :3	Solve ga	ames using various techniques. (13)													
3601 :4	Solve pr	oduction scheduling and develop inventory policies. (16													
3601 :5	Apply of	otimality	conditi	ions fo	r const	trained	and u	nconst	rained	nonlin	ear pro	oblems.	(13)		
Mapping	of Course	Outcome	s (COs) with]	Progra	m Out	comes	(POs) a	& Prog	gram Sj	pecific	Outcome	es (PSC)s)	
COs		РО									PS	50			
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	
36011	2	2	1	2	-	-	-	-	-	-	-	-	2	-	
3601.2	2	2	2	2	-	-	-	-	-	-	-	-	2	-	
3601.3	2	2	1	2	-	-	-	-	-	-	_	-	2	-	
3601.4	2	2	-	2	-	-	-	-	-	-	-	-	2	-	
3601.5	2	2	-	2	-	-	-	-	-	-	-	-	2	1-	
AVG	2	2	1	2	-	-	-	-	-	-	-	-	2	-	



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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

Through Innovation						
	SEM: III-II	Y: 2	Y: 2019-20			
Course Code:	Course Name: DESIG	L	Т	Р	С	
15A03602	Prerequisite: None		3	1	0	3

CO No.	COURSE OUTCOME
3602 :1	able to design crane hooks, C-clamps and various belt, rope and chain drives.
3602 :2	able to design helical sprigs for two wheel vehicle and laminated springs for trucks
3602 :3	able to design journal bearings, ball bearings and roller bearings and to know the advantages of rolling contact bearings against sliding contact bearings.
3602 :4	able to design spur and helical gears for different input conditions.
3602 :5	able to know various forces acting on I C engine parts and failure criteria to be adopted for various parts.
Mapping	of Course Outcomes (COs) with Program Outcomes (POs) & Program Specific Outcomes (PSOs)

CO						РО							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3602.1	3	2	2	-	-	-	-	-	-	1	-	1	3	1
3602.2	3	2	2	-	-	-	-	-	-	1	-	1	3	1
3602 .3	3	3	1	-	-	-	-	-	-	1	-	1	3	1
3602.4	3	2	2	-	-	-	-	-	-	1	-	1	3	1
3602.5	3	2	1	-	-	-	-	-	-	1	-	1	3	1
AVG	3	3	2	-	-	-	-	-	-	1	-	1	3	1
3/2/1 Indicat	es Strength o	of Correl	ation: 3	-High,	2-Med	ium and	d 1-Lov	V						

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DEPARTMENT OF MECHANICAL ENGINEERING COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

Through Innovation	SEM: III-I	Dog. D15	٨	v. 1	019-2	020	
	SEIVI: 111-1	Reg: R15	A	1:2	019-2	020	
Course Code:	Course Name: Heat th	Course Name: Heat transfer					
15A03603	Prerequisite: None			3	1	0	3

COURSE OUTCOMES (COs)

CO No.	COURSE OUTCOME
3603-1	To impart the basic laws of conduction, convection and radiation heat transfer and their applications (BTL2)
3603-2	To familiarize the convective heat transfer concepts (BTL4)
3603-3	To explain basics of radiation heat transfer (BTL5)
3603-4	To make conversant with the heat transfer analysis related to thermal systems like heat exchangers, evaporator, and condenser. (BTL5)
3603-5	To understand the phenomenon of boiling and condensation to familiarize the mass

transfer process (BTL4)

Mapping of Course Outcomes (COs) with Program Outcomes (POs) & Program Specific Outcomes (PSOs)

60						PO							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3603.1	3	2	2	1	1	1	1	1	1	1	-	2	3	1
3603.2	3	2	2	1	1	1	1	1	1	1	-	2	3	1
3603.3	3	3	1	3	2	1	-	1	1	1	-	2	3	1
3603.4	3	2	2	2	2	1	-	1	1	1	-	2	3	1
3603.5	3	2	1	1	1	1	1	1	1	1	-	2	3	1
AVG	3	3	2	2	2	1	1	1	1	1	-	2	3	1

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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

Through Innovation				T 7 A	0.4.0			
	SEM: 111-11	SEM: III-II Reg: R15 A						
Course Code:	Course Name: Finite Elen	L	Т	Р	С			
15A03604	Prerequisite: None	3	1	0	3			

COURSE OUTCOMES (COs)

CO No.	COURSE OUTCOME
3604 :1	able to know introductory basic principles and approaches for solving FEM problems in different fields.
3604 :2	able to formulate FEM model for simple problems.
3604 :3	able to write interpolation functions to higher order isoparametric elements.
3604 :4	able to derive element matrices for applying the principles to find stresses in beams and trusses and temperature distribution in composite walls and fins.
3604 :5	able to solve bars, trusses, beams and heat transfer problems using FEM and also to apply boundary conditions in realistic problems.

Mapping of Course Outcomes (COs) with Program Outcomes (POs) & Program Specific Outcomes (PSOs)

<u> </u>						РО							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3604.1	2	2	1	2	2	-	-	-	-	-	-	-	3	
3604.2	2	2	2	2	2	-	-	-	-	-	-	-	3	
3604.3	2	2	1	2	2	-	-	-	-	-	-	-	3	
3604.4	2	2	-	2	2	-	-	-	-	-	-	-	3	
3604.5	2	2	-	2	2	-	-	-	-	-	-	-	3	
AVG	2	2	1	2	2	-	-	-	-	-	-	-	3	



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DEPARTMENT OF MECHANICAL ENGINEERING COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

Through Innovation							
	SEM: III-II	Reg: R15	Α	Y: 2	019-2	2020	
Course Code:	Course Name: Metal forn	ning Process		L	Т	Р	С
15A03605	Prerequisite: None			3	1	0	3

CO No.	COURS	SE OUT	COM	E										
3605 :1	understar plasticity					-				ional	stress	analysis,	theor	ус
3605 :2	understa	nd the pri	inciple	s of rol	lling aı	nd forg	ging pro	ocesse	s, their	applic	cations	and defe	ects	
3605 :3	understar industria			ntals of	f extru	sion pr	ocess	and wi	re drav	wing p	rocesse	es and the	eir	
3605 :4	understa	nd the va	rious p	ress w	orking	proces	sses, th	neir adv	vantag	es and	disadv	antages.		
3605 :5	understar application		oncept	of plas	stic ma	inufact	uring _]	proces	s, rapi	d man	ufactur	ing proc	ess an	d i
	1													
Mapping	g of Course	Outcome	s (COs) with l	Progra	m Outo	comes ((POs) a	& Prog	ram Sj	pecific	Outcome	s (PSO	s)
	g of Course	Outcome	s (COs) with I	Progra	m Outo PO	comes ((POs) &	& Prog	ram Sj	pecific	Outcome	s (PSO PS	<u></u>
Mapping COs	g of Course	Outcome	s (COs)) with 1	Progra 5		comes ((POs) &	& Prog	ram Sj 10	pecific (Outcome 12		0
				<u> </u>		PO							PS	0
COs	1		3	<u> </u>	5	PO		8				12	PS 1	0
COs 3605.1	1		3	<u> </u>	5 2	PO		8 2				12 2	PS 1 2	0
COs 3605.1 3605.2	1 2 2		3 1 2	<u> </u>	5 2 2	PO 6 -		8 2 2				12 2 2	PS 1 2 2	0
COs 3605.1 3605.2 3605.3	1 2 2 2 2		3 1 2	<u> </u>	5 2 2 2 2	PO 6 - - 1		8 2 2 2 2	9			12 2 2 2 2	PS 1 2 2 2	<u></u>

3/2/1 Indicates Strength of Correlation. 3-High, 2-Medium and 1-Lo

Course Faculty Sign

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AMIREDDY SUBB	ARAMI REDBY											IEER		
Engineering Through In		C	OURS	E OU	TCO	MES	& MA	PPIN	IG OI	F COs	with]	POs &	PSOs	\$
		SE	EM:	III-II			R	eg: R	15		AY:	2019-	2020	
Course	Code:	Course	Name	: Non	Conve	ntiona	Sourc	e of Er	nergy		L	Т	Р	C
15A0	3606	Prereq	uisite:	None							3	1	0	3
				COUI	RSE O	UTC	OMES	(COs))					
CO No.	COUR	SE OUI	COM	[E										
3606 :1	Underst	anding va	rious N	Non-co	nventi	onal so	ources	of Ene	rgy.					
3606 :2	Able to	learn how	to use	renew	able e	nergie	s instea	ad of c	onvent	tional f	uels			
Mapping	g of Course	e Outcome	es (COs) with [Progra	m Out	comes	(POs)	& Prog	gram Sj	pecific (Jutcome	es (PSC)s)
~~						PO							PS	50
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3606.1	2	-	1	-	-	2	3	3	-	-	-	-	-	2
3606.2	2	-	2	-	-	2	3	3	-	-	-	-	-	2
AVG	2	-	1		2	2	3	3					-	2



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DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

10100401 1010040100							
	SEM: III-I	Reg: R15	Α	Y: 2019-2020 L T 0 0	2020		
Course Code:	Course Name: Heat T	ransfer Lab		L	Т	Р	С
15A03609	Prerequisite: None			0	0	4	2
1							

COURSE OUTCOMES (COs)

CO No.	COURSE OUTCOME
3609.1	To Understand different modes of heat transfer (BTL1)
3609.2	To evaluate thermal conductivities of different materials (BTL4)
3609.3	To Gain knowledge about natural and force convection phenomenon (BTL5)
3609.4	Estimate experimental uncertainty in measurements (BTL5)

Mapping of Course Outcomes (COs) with Program Outcomes (POs) & Program Specific Outcomes (PSOs)

60						PO							PS	50
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3609.1	3	2	2	1	1	1	1	1	1	1	-	2	3	1
3609.2	3	2	2	1	1	1	1	1	1	1	-	2	3	1
3609.3	3	3	1	3	2	1	-	1	1	1	-	2	3	1
3609.4	3	2	2	2	2	1	-	1	1	1	-	2	3	1
AVG	3	3	2	2	2	1	1	1	1	1	-	2	3	1

Course Faculty Sign

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	5									01: 2015 42, S.P.S				1.	
RAMIREDDY SUBB/ ENGINEERING	RAMI REDDY									AL E					
Engineering E Through Inn	xcellence	C	DURS	E OU	TCO	MES	& M A	PPIN	IG OI	F COs	with	PC)s &	PSOs	
Through the	oration	S	EM: I	II-II			R	eg: R	15		AY	: 20	019-2	2020	
Course	Code:	Cou	rse Na	me: Co	mpute	er Aide	d Engi	neerin	g Labo	ratory		L	Т	Р	C
15A03	3610	Prerequ	uisite:	None								0	0	4	2
3610:1 3610:2 Mapping		te CAD : CNC prog Outcome	grams	for va			•	-		ram Sj	pecific	Out	tcome	s (PSO	vs)
						РО)							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11		12	1	2
3602T.1	2	-	3	-	3	-	-	-	-	3	3		2	2	-
3602T.2	2	-	3	-	3	-	-		-	3	3		2	2	-
AVG	2	-	3	-	3	-	-	-	-	3	3		2	2	-
3/2/1 Indicat	es Strength	of Correl	ation. 3	-High,	3-Med	ium an	d 1-Lov	v							

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Engineering I Through Inc			COU	RSE (OUTC	OMES	5 & M.	APPIN	G OF	COs v	vith l	POs	s &]	PSOs	3
Through Th	10421104		SEM:	III -	- II]	Reg: R	15		AY	: 20)19-:	2020	
Course	Code:		rse Nan LCS) Lat			English	Langua	age Con	nmunic	ation Sl	kills	L	Т	Р	С
15A52	602	Prer	requisite	e: Nil								0	0	2	0
				CC	DURSE	E OUT	COME	S (COs)						
CO No.	COU	RSE (OUTC	OME											
2602.1			ind und LSRW			lifferen	t aspec	ts of t	he Eng	lish laı	nguag	e pi	rofic	iency	with
2602 .2	Apply	comm	unicati	on skill	s throu	gh vario	ous lang	guage le	earning	activiti	es[B	ГL2	2]		
2602.3	-		English speaki	•			•	hm, into	onation	and sy	llable	e div	visio	n for	better
2602.4	Evalua	te and	exhibit	accept	table et	iquette	essentia	al in soc	cial and	l profes	sional	set	tings	.[BT]	L6]
2602.5			eness or sh.[BT		er tongi	ue influ	ience a	nd neut	ralize i	t in ord	er to	imp	rove	fluen	icy in
Mapping of	f Course	Outco	mes (CC)s) with	n Progra	am Outo	comes (POs) &	Progra	m Speci	ific Oı	itco	mes ((PSOs)
						P	0							P	SO
COs	1	2	3	4	5	6	7	8	9	10	11		12	1	2
2602.1	-	-	-	-	-	-	-	-	1	1	-		2	-	1
2602.2	-	-	-	-	-	1	2	-	-	1	-		-	1	1
2602.3	-	-	-	-	-	-	-	-	-	1	-		-	1	1
2602.4	-	-	-	-	-	-	1	1	1	-	-		-	1	1
2602.5	-	-	-	-	-	-	-	-	-	-	-		-	-	-
AVG	-	-	-	-	-	1	2	1	1	1	-		2	1	1
3/2/1 Indica	tes Streng	gth of C	Correlati	on. 3-H	igh, 3-M	ledium a	and 1-L	ow							

-4															
	\geq										Certified S.R. Nello		n.		
	ARAMI REDDY COLLEGE	D	EPA	RTM	IENT	Г ОF	ME	CHA	NIC	AL E	NGIN	IEER	ING		
Engineering	Excellence	CO	JURS	E OU	TCO	MES	& M A	PPIN	IG OI	F COs	with I	POs &	PSOs	5	
Through In	10431108	SF	EM:	IV-I			R	eg: R	15		AY:	2020-2	2021		
Course	Code:	Course	Name:	Mana	igeme	nt Scie	ence				L	Т	Р	C	
15A5	2601	Prerequ	uisite:]	None	-						3	1	0	3	
10110														<u> </u>	
				COUI	RSE O	UTCO	OMES	(COs)							
CO No.	COURS	E OUT				0100		(000)							
	Understa				orincit	oles of	mana	geme	nt and	know	the de	signs c	of		
2601.1	organiza		-	-				0				0			
2601.2	Apply th	e know	ledge	of Wo	rk-stu	dy pri	nciple	s & Q	uality	Cont	rol tech	iniques	. (BT	L3)	
2601.3	Analyze (BTL4)	the con	knowledge of Work-study principles & Quality Control techniques. (BTL3)												
2601.4	Evaluate Strategy				-	-		-				knowle	dge al	oou	
2601.5	Understa TQM. (H	and the 1										Sigma	and		
			(60)) with]	Progra	m Out	comes	(POs) d	& Prog	gram Sj	pecific (Outcome	es (PSC)s)	
Mapping	g of Course	Outcome	s (COs												
	g of Course	Outcome	s (COs			PO							PS	50	
Mapping COs	g of Course	Outcome	s (COs)	4	5	PO 6	7	8	9	10	11	12	PS		
				4	5	-	7	8 1	9 3	10 2	11	12		50 2 2 2	
COs		2	3	•		-	7 - -		-		11 - -	12 - -		2	
COs 2601.1 2601.2	1	2 2 3	3 - 3	2	-	-	-	1	3	2	-	12 - -		2 2 2	
COs 2601.1		2 2	3 -	2		-	7 - -		-		11 - - -	12 - - -		2 2 2	
COs 2601.1 2601.2	1	2 2 3	3 - 3	2	-	-	-	1	3	2	-	12 - - - -		2 2 2 3	
COs 2601.1 2601.2 2601.3	1	2 2 3 2	3 - 3 3	2 2 2	-	-	-	1	3	2	-	12 - - - - -		2	

(star		R	AMI	RED	DY S	SUBB		MI I		DY I	ENGI	NEEF	RING	r
	5										Certified S.R. Nello	l Institutio ore. A.P.)	on.	
AMIREDDY SUBB	ARAMI REDBY	D										NEER	ING	
Engineering I												POs &		5
Through In:	hovation	SI	EM:	IV-I			R	eg: R	15		AY	: 2020-	2021	
Course	Code:	Course	Name	AUT(ЭМОВ	ILE E	NGINE	ERIN	G		Ι	T	Р	(
(15A0)	3701)	Prereq	uisite:	None)						3	3 1	0	
	,													
				COU	RSE O	UTC	OMES	(COs))					
CO No.	COUR	SE OUT	COM	[E										
3701.1	Illustrat	e workir	ng of I	C engi	ine co	mpone	ents.(I	BTL1)						
3701.2	Analyze	e the co	mbust	ion pł	nenom	enon	in S.	and	C.I e	ngines	and	various	emiss	sio
	control	methods	(BT	L1)										
3701.3	Explain	various	eleme	nts an	d tran	smissi	ion sys	stem o	of an a	utomo	bile.(I	BTL2)		
3701.4	Explain	, steering	g and s	suspen	sion s	system	ns of a	n auto	mobil	e.(BT	L6)			
3701.5	Describ	e the im	portan	ce of s	safety	syster	nand	hybrid	vehic	ele.(B	ГL2)			
Mapping	g of Course	Outcome	es (COs) with]	Progra	m Out	comes	(POs)	& Prog	gram Sj	pecific	Outcom	es (PSC)s)
00						РО	1						PS	50
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	1
3701.1	3	2	1	-	-	-	-	-	1	-	-	-	3	1
3701.2	3	3	2	-			-	-	2	-	_	-	3	3
3701.3	3	2											3	
3701.4		2	1	-	-	-	-	-	2	-	-	-	3	
5701.4	3	2	-	-	-	-	-	-	1	-	-	-		
	3	3	-	-	-	-	-	-	1	-	-	-	3	-
3701.5	5													

ALT.	Sei	R	AMI	RED	DY S	SUBB		MI I		DY F	ENGI	NEER	RING		
											Certified S.R. Nello	Institutio	n.		
RAMIREDDY SUBB	ARAMI RED DY	D		<i>,</i>				<i>.</i>		<i>,</i>		NEER	ING		
Engineering I Through Inr		C	OURS	E OU	TCO	MES	& M A	PPIN	IG OI	F COs	with	POs &	PSOs		
riitergii fii	ioretton.		*	IV-I			R	eg: R	15		AY	2020-2	2021		
Course	Code:	Course	Name:	CAD/CA	AM						I	L T	Р	C	
15A03	3702	Prereq	uisite:	None	;						3	1	0	3	
				COU	DSEO		MES								
	COUD	SE OUT	COM		SE U	OUTCO	JNIES	(COS))						
CO No.	COUR														
3702.1	Apply v	various transformations to manipulate a geometric model.(BTL3)													
3702.2	Illustrat	e variou	s entit	ies of	wire f	rame,	surfac	e, and	l solid	mode	ls. (B)	TL1)			
3702.3	Develop	the CN	C part	t progr	ammi	ng for	giver	l comp	ponent	t. (BT	ĽL2)				
3702.4		ate manu er aided		-			n simi	lar att	ribute	s of pa	arts, Ju	stify th	e need	d of	
3702.5	-	trends i			-		rove tl	ne pro	ductiv	vity. (E	BTL3)				
Mapping	of Course	Outcome	s (COs) with]	Progra	m Out	comes	(POs)	& Prog	ram Sj	pecific (Outcome	es (PSO	s)	
COs						РО							PS	60	
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2	
3702.1	2	-	3	-	3	-	-	-	-	3	3	2	2	-	
3702.2	2	-	3	-	3	-	-		-	3	3	2	2	-	
3702.3	2	-	3	-	3	-	-	-	-	3	3	2	2	-	
3702.4	2	-	3	-	3	-	-	-	-	3	3	2	2	-	
3702.5	2	-	3	-	3	-	-	-	-	3	3	2	2	-	
AVG	2	-	3	-	3	-	-	-	-	3	3	2	2	-	
AVO		1													

ALL T		R	AMI]	RED	DY S	SUBB		MI] LLE		DY F	ENG	IN	EER	ING	
						, Affiliato ala, Bogo								n.	
RAMIREDDY SUBB	ARAMI REDDY	D	EPA	RTM	IEN	ГOF	ME	CHA	NIC	AL E	NGI	NF	EER	ING	
ENGINEERING Engineering E	xcellence	CC	OURS	E OU	TCO	MES	& M A	PPIN	IG OI	F COs	with	P PC)s &	PSOs	
Through Inr	lovation	SF	EM:	IV-I			R	eg: R	15		AY	Z:2	020-2	2021	
Course	Code:	Course	Name:	METRO	DLOGY	' AND	MEAS	SUREM	IENTS			L	Т	Р	С
15A0.	3701	Prereq	uisite:	None								3	1	0	3
				COU	RSE O	UTCO	OMES	(COs))						
CO No.	COURS	E OUT	СОМ	Έ											
3701.1	Understa	and the p	orincip	oles of	meas	ureme	ent sys	tems(BTL2)					
3701.2	Design	mecha	tronic	s sy	vstem,	coi	ntrol	syste	ems	and	mic	rop	roces	sor-ba	ised
2701.2	controlle		,												
3701.3	Choose displace	-										-			like
3701.4	Analyze same phy	the mea	asuren	nent d	ata oł			-	-						the
3701.5	Illustrate impulsio			it met	rolog	ical to	ools a	and p	erform	n me	asure	mei	nts ii	n qua	lity
Mapping	of Course	Outcome	s (COs) with l	Progra	m Outo	comes	(POs) a	& Prog	ram Sj	pecific	Ou	tcome	s (PSO	s)
						РО								PS	0
COs	1	2	3	4	5	6	7	8	9	10	11		12	1	2
3701.1	3	1	3	-	2	-	-	-	-	1	-		-	3	1
3701.2	3	1	3	-	2	-	-	-	3	3	-		-	3	1
3701.3	3	1	3	-	2	-	-	-	3	3	-		-	3	1
3701.4	3	1	3	-	2	-	-	-	3	3	-		-	3	1
3701.5	3	1	3	-	2	-	-	-	3	3	-		-	3	1
AVG	3	1	3	-	2	-	-	-	3	3	-		-	3	1
3/2/1 Indica	tes Strength	of Correl	ation. 3	-High,	3-Med	ium and	d 1-Lov	N							



Engineering Excellence

RAMIREDDY SUBBARAMI REDDY ENGINEERING COLLEGE

(Approved by AICTE, Affiliated to JNTUA. An ISO 9001: 2015 Certified Institution. NH-16, Kadanuthala, Bogole Mandal, Kavali- 524 142, S.P.S.R. Nellore, A.P.)

DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

Intendu Innevation	SEM: IV-I	Reg: R15	٨	v . 1	020-2	021	
	SENI: IV-I	Keg: KI5	A	1:2	020-2	021	
Course Code:	Course Name: Refrig	eration and Air Condition	ning	L	Т	Р	С
15A03704	Prerequisite: None			3	1	0	3

COURSE OUTCOMES (COs)

CO No.	COURSE OUTCOME
3704.1	To understand the thermodynamic principles are applied to the refrigeration and air conditioning industry.(BTL2)
3704.2	To learn how real systems used in commercial industrial refrigeration and air

J4. <i>L</i>	To learn how real systems used in commercial, industrial refrigeration and air	
	conditioning industries are to be built-up. (BTL4)	
		1

3704.3	To impart the knowledge on various refrigeration methods like VCR, VAR and latest
	developments (BTL5)

^{3704.4} To analyze the various air conditioning methods like summer, winter and year round air conditioning (BTL5)

3704.5	To understand the practical applications of refrigeration and air conditioning systems.
	(BTL4)

Mapping of Course Outcomes (COs) with Program Outcomes (POs) & Program Specific Outcomes (PSOs)

60.						PO							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3704.1	1	2	3	1	1	1	1	1	1	1	-	2	3	1
3704.2	1	2	3	1	1	1	1	1	1	1	-	2	3	1
3704.3	3	3	3	3	2	1	-	1	1	1	-	2	3	1
3704.4	3	2	2	2	2	1	-	1	1	1	-	2	3	1
3704.5	1	2	1	1	1	1	1	1	1	1	-	2	3	1
AVG	2	3	3	2	2	1	1	1	1	1	-	2	3	1

Course Faculty Sign

ALT T		R	AMI	RED	DY S	SUBB		MI I		DY F	ENGI	NEER	ING	
												l Institutio ore, A.P.)	n.	
RAMIREDDY SUBB	ARAMI REDBY	D	EPA	RTM	IENT	Г ОГ	ME	CHA	NIC	AL E	NGI	NEER	ING	
ENGINEERING Engineering I		C	OURS	E OU	TCO	MES	& M A	PPIN	IG OI	F COs	s with	POs &	PSOs	
Through Inr	ovation	SI	EM:	IV-I			R	eg: R	15		AY	: 2020-2	2021	
Course	Code:	Course	Name:	AUTOM	ATION	AND R	OBOTIC	S			Ι	T	Р	C
15A03	3708	Prereq	uisite:	None	;							3 1	0	3
					RSE O	OUTCO	OMES	(COs))					
CO No.	COURS	SE OUT	COM	E										
3708.1	Understat strategies						bes of a	automa	tion, c	compoi	nents o	f automa	tion,	
3708.2	Understat carried of flexible a	ut on aut ssembly	omateo lines (l flow BTL2)	line w	ithout i	interru	ption a	ind hov	w to ba	alance t	he line a	ind	
3708 .3	Know the in the des							obot. E	3y kno	wing t	his the	student	may ap	oply
3708.4	Understa	nd the ap	plicati	ons of	variou	is type	s of en	d effec	ctors, a	nd sen	sor dev	vices(B	TL2)	
3708 .5	Understat (BTL2)	nd robot	progra	mming	g langı	uages v	which 1	nay ad	lopt in	differe	ent app	lications	of rob	ot.
Mapping	of Course	Outcome	s (COs) with]	Progra	m Out	comes	(POs)	& Prog	ram Sj	pecific	Outcome	s (PSO	s)
						РО							PS	0
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3708 .1	3	1	3	-	2	-	-	-	-	1	-	-	3	1
3708.2	3	1	3	-	2	-	-	-	3	3	-	-	3	1
3708 .3	3	1	3	-	2	-	-	-	3	3	-	-	3	1
3708.4	3	1	3	-	2	-	-	-	3	3	-	-	3	1
3708.5	3	1	3	-	2	-	-	-	3	3	-	-	3	1
AVG	3	1	3	-	2	-	-	-	3	3	-	-	3	1
3/2/1 Indica	tes Strength	of Correl	ation. 3	-High,	3-Med	ium and	d 1-Lov	v						

and a		R	AMI	RED	DY S	UBB		MI I LLE		DY H	ENGI	NEER	RING	
											Certified S.R. Nello	Institutio re, A.P.)	n.	
AMIREDDY SUBB	ARAMI REDDY	D	EPA	RTM	IENT	Г О F	ME	СНА	NIC	AL E	NGIN	JEER	ING	
ENGINEERING Engineering E	xcellence	C	OURS	E OU	TCO	MES	& M A	PPIN	IG O	F COs	with]	POs &	PSOs	}
Through Inn	ovation	S	EM:	IV-I			R	eg: R	15		AY:	2020-2	2021	
Course	Code:	Course	Name:	CAD/C	CAM L	ABOR	ATOR	RY ST		I	L	Т	Р	C
15A03	3710	Prerec	uisite:	None	:						0	0	4	2
				COUI	RSE O	UTC	OMES	(COs))					
CO No.	COUR	SE OUI	COM	[E										
3710.1	Generat	e CAD 1	nodels	(BT	[4]									
3710.2		NC prog		`	,	achini	ng ope	eration	is. (B7	TL1)				
3710.3	Write p	rograms	for di	fferent	curve	es. (B	TL1)							
Mapping	of Course	Outcome	s (COs) with l	Progra	m Out	comes	(POs)	& Prog	gram Sj	pecific (Jutcome	es (PSO	s)
						PO							PS	60
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3710.1	2	-	3	-	3	-	-	-	-	3	3	2	3	-
3710.2	2	-	3	-	3	-	-		-	3	3	2	3	-
3710.3	2	-	3	-	3	-	-	-	-	3	3	2	3	 -
	2	-	3	_	3	_	_	_		3	3	2	3	┨

(ANT)	Ser.	R	AMI	RED	DY S	UBB		MI] LLE		DY F	ENGI	NEER	RING	
			· • •	•							Certified S.R. Nello	Institutio re, A.P.)	n.	
AMIREDDY SUBB	ARAMI REDDY	D										NEER	ING	
Engineering		CO	DURS	E OU	TCO	MES	& M A	PPIN	IG OI	F COs	with	POs &	PSOs	
Through Ini	novation	SI	EM:	IV-I			R	eg: R	15		AY:	2020-2	2021	
Course	Code:	Co	ourse N	ame: N		DLOGY BORA		EASUI	REME	NTS	L	T	Р	0
15A0	3711	Prereq	uisite:	None							0	0	4	2
												•		
				COUI	RSE O	UTCO	OMES	(COs))					
CO No.	COURS	E OUT	СОМ	E										
3711.1	Study of character		•						s and	experi	ment i	on of it	S	
3711.2	Study of character		•						s and	experi	ment i	on of it	s	
3711.3	Differen								(BTL	2)				
3711.4	Analyze same phy					tained	from	differ	ent me	easurin	ng instr	ruments	s for th	ne
Mapping	of Course	Outcome	s (COs) with]	Progra	m Out	comes	(POs) d	& Prog	ram Sj	pecific (Outcome	es (PSO	s)
						РО							PS	0
~ ~						(_	8	9	10	11	12	1	2
COs	1	2	3	4	5	6	7	U	-	-				
COs 3711.1	1 3	2	3 2	4 3	5	- 6	7	-	3	3	-	-	3	-
		2		-	5 - -	- -	-	-			-	-	3	-
3711.1 3711.2	3	-	2	3	5 - -	6 - - -	7 - - -	-	3	3	-	-		-
3711.1	3	-	2 2	3	5 - - -	6 - - - -	7 - - - -		3	3			3	-

and a	F	RAN	AIRE	DDY	SUBE	BAR/	¥WI f	REDD	ŶĒ	IGIN	EERIN	ie co	LLEC	ìE
24											Certified S.R. Nello	Institutio	n.	
RAMIREDDY SUBB	ARAMI REDDY COLLEGE	D										NEER	ING	
Engineering E	Excellence	C	OURS	E OU	TCO	MES	& M A	PPIN	IG O	F COs	with I	POs &	PSOs	;
through the		SE	EM:	IV-II			R	eg: R	15		AY:	2020-2	2021	
Course	Code:	Course	Name	INDU	STRIA	L ENC	GINEE	RING			I	, T	Р	C
15A03	3801	Prerequ	uisite:	None							3	1	0	3
				COUI	RSE O	OUTCO	OMES	(COs))					
CO No.	COURS	SE OUT	COM	E										
3801 .1	Explain	the cond	cepts,	theorie	es of r	nanag	ement	and o	organiz	zation	(BTL2	2)		
3801 .2	Can Sel	ect the s	uitable	e plant	layou	its and	l plant	locat	ionfor	produ	iction()	BTL1)		
3801 .3	Determi	ine to se	lect be	st pos	sible 1	manuf	acturii	ng pro	cedur	es. (B	TL5)			
3801 .4	Underst	and the	differe	nt typ	es of i	invent	ory m	odels	and it	s appli	cabilit	y (BTL	.2)	
3801 .5	Know th	he impor	tance	of insj	pectio	n and	qualit	y stan	dards	in pro	duction	n (BTL	1)	
Mapping	of Course	Outcome	es (COs) with]	Progra	m Out	comes	(POs) a	& Prog	gram Sj	pecific (Outcome	es (PSC)s)
COs						РО							PS	SO
COS	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3801 .1	2	-	1	-	-	-	-	-	-	-	-	-	-	2
3801 .2	2	-	2	-	-	-	-	-	-	-	-	-	-	2
3801 .3	2	-	1	-	-	1	-	-	_	-	-	-	-	2
3801 .4	2	-	-	-	2	1	-	-	-	-	-	-	-	2
3801 .5	2	-	-	-	2	1	2	-	-	-	-	-	-	2
	2	+	2	-	2	1	2	-		1			-	2

Course Faculty Sign (K.RAMAMOHAN REDDY)

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RAMIREDDY SUBBARAMI REDDY

Engineering Excellence

RAMIREDDY SUBBARAMI REDDY ENGINEERING COLLEGE

(Approved by AICTE, Affiliated to JNTUA. An ISO 9001: 2015 Certified Institution. NH-16, Kadanuthala, Bogole Mandal, Kavali- 524 142, S.P.S.R. Nellore, A.P.)

DEPARTMENT OF MECHANICAL ENGINEERING

COURSE OUTCOMES & MAPPING OF COs with POs & PSOs

Infough Innovation							
	SEM: IV-II	Y: 2	2020-2	021	C 3		
Course Code:	Course Name: Gas Tu	rbine and Jet Propulsion	ı	L	Т	Р	С
15A03805	Prerequisite: None			3	1	0	3

COURSE OUTCOMES (COs)

CO No.	COURSE OUTCOME													
3805.1	To understand the basic gas cycles of gas turbine (BTL2)													
3805.2	To analyze the methods of regeneration, inter cooling and reheating of Brayton cycle of gas turbine (BTL4)													
3805.3	To familiarize the concept of jet propulsion (BTL5)													
3805.4	To analyze the working principle of jet engines (BTL5)													
3805.5	To impart knowledge on the working of rockets (BTL4)													
Mapping	of Course C	Outcome	s (COs) with]	Progra	m Outo	comes	(POs) d	& Prog	ram Sj	pecific	Outcome	s (PSO	s)
60	РО											PSO		
COs	1	2	3	4	5	6	7	8	9	10	11	12	1	2
3805.1	1	2	3	1	1	1	1	1	1	1	-	2	3	1
3805.2	1	2	3	1	1	1	1	1	1	1	-	2	3	1
3805.3	3	3	3	3	2	1	-	1	1	1	-	2	3	1
3805.4	3	2	2	2	2	1	-	1	1	1	-	2	3	1

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AVG2332211113/2/1 Indicates Strength of Correlation: 3-High, 2-Medium and 1-Low

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Course Faculty Sign

2

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3805.5

HOD/ MECH

2

2

3

3

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