(An Autonomous Institute)



Curriculum (Structures)

for

M.Tech. Programme in Mechanical (Design Engineering)

With Effect From

Academic Year

2018-2019 (F. Y. M. Tech.)

2019-2020 (S. Y. M. Tech.)

(An Autonomous Institute)
Teaching and Evaluation Scheme

First Year M.Tech. Program in Mechanical (Design Engineering)

Semester I

	(Course	T	'eachi	ing So	cheme	Evaluation Scheme				
Category	Code	Name	L	Т	P	Credits	Component	N		Marks	
Category	Couc	Name		1	1	Credits	Component	Max		n for sing	
		D 1 M (1 1 1					ISE 1	10			
MC	3DE501	Research Methodology for Mechanical Design	2	_	_	2	MSE	30		40	
IVIC	JDLJ01	Engineers	2	_		2	ISE 2	10		10	
		Liighteers					ESE	50	20		
							ISE 1	10			
PC	3DE502	Advanced Stress	3			- 3	MSE	30		40 40	
10	3DE302	Analysis	3	_			ISE 2	10		40	
							ESE	50	20		
		Advanced Vibrations					ISE 1	10		40	
PC	3DE503		3	_	_	3	MSE	30			
rc	306303	and Acoustics	3	_	_	3	ISE 2	10			
							ESE	50	20		
							ISE 1	10		40	
PE	3DE5**	Professional elective 1	3	_	_	3	MSE	30			
FL	SDES		3	-	_		ISE 2	10			
							ESE	50	20		
							ISE 1	10			
PE	3DE5**	Professional elective 2	3			2	MSE	30		40	
PE	3DE3***		3	-	-	3	ISE 2	10			
							ESE	50	20		
PC	3DE551	Design Engineering	_	4	_	2	ISE	50	2	0.	
PC	SDESSI	Laboratory 1	-	4	-	2	ESE	50	2	20	
		Design Engineering					ISE	50	2	0.	
PE	3DE552	Laboratory 2 (Professional Elective)	-	4	4 -	- 2	ESE	50	2	0	
		Total	14	8	0	18	Total Total Co	Credits ntact F		2	

	List of Professional Elective 1	List of Professional Elective 2		
3DE511	Advanced Machine Design	3DE515	Advanced Engineering Materials	
3DE512	Design for Manufacturing and Assembly	3DE516	Mechanics of Composite Materials	
3DE513	Mathematical Methods in Engineering	3DE517	Analysis and Synthesis of Mechanisms	
3DE514	Reliability Engineering	3DE518	Process equipment design	

Walchand College of Engineering, Sangli (An Autonomous Institute)

Teaching and Evaluation Scheme Effective from 2018-19

First Year M.Tech. Program in Mechanical (Design Engineering) Semester II

		Course	Γ	eachi	ng S	cheme	Evalua	tion Scl	heme	
Category	Code	Name	L	Т	P	Credits	Component	N	Aarks	
Category	Code	Name	L	1	1	Credits	Component	Max	Min Pass	
							ISE 1	10		
							MSE	30		4.0
OE	2OE5**	Open Elective	3	-	-	3	ISE 2	10		40
							ESE	50	20	40
							ISE 1	10		
DC	2DE521	Einias Element Method	2			2	MSE	30		40
PC	3DE521	Finite Element Method	3	_	-	3	ISE 2	10		40
							ESE	50	20	
		2 Computer Aided Design	3		-		ISE 1	10		40
DC	3DE522			-		3	MSE	30		
PC			3				ISE 2	10		
							ESE	50	20	
							ISE 1	10		
DE	ODE 5 de de	Professional elective 3	3	-	-	- 3	MSE	30		40
PE	3DE5**						ISE 2	10		40 40
							ESE	50	20	
							ISE 1	10		
PE	3DE5**	Professional elective 4	3		_	3	MSE	30		40
FL	SDES		3	_	-	3	ISE 2	10		
							ESE	50	20	
PC	3DE571	Design Engineering Laboratory 3	_	4	_	2	ISE	50	2	0
10	3DE371	Design Engineering Laboratory 5	-	4	_	2	ESE	50	2	0
PE	3DE572	Design Engineering Laboratory 4	_	4	_	2	ISE	50	2	0
		(Professional Elective)					ESE	50	2	
PC	3DE541	Pre-dissertation work & seminar	-	4	-	2	ISE	100	4	0
Total 15 12 0 21 Total Credits: 21 Total Contact Hrs: 2						7				

	List of Professional Elective 3	List of Professional Elective 4		
3DE531	Tribology in Design	3DE535	Advanced Metallurgy	
3DE532	Robotics	3DE536	Condition Based Monitoring	
3DE533	Fracture Mechanics	3DE537	Optimization Techniques in Design	
3DE534	Advanced Machine tool design	3DE538	Vehicle Dynamics	

	Open Elective		
Course Code	Course Name	Offered by Department	
3OE501	Design Optimization	Amuliad Mashanias	
3OE502	Structural Health Monitoring and Smart Materials	Applied Mechanics	
3OE515	Life Cycle Assessment and Ecolabelling	Civil Engineering	
3OE516	Construction Equipment	- Civil Engineering	
3OE529	Business Analytics		
3OE530	Industrial Safety		
3OE531	Operations Research		
3OE532	Cost Management of Engineering Projects	Mechanical Engineering	
3OE533	Composite Materials		
3OE534	Waste to Energy.		
3OE535	Project Based Learning with Embedded System		
3OE543	Control Techniques for Electrical Drives.	Floatrical Engineering	
3OE544	Neural Network and Fuzzy Control.	- Electrical Engineering	
3OE557	Remote sensing and Image Analysis		
3OE558	Automotive Electronics		
3OE559	Mechatronics		
3OE560	Digital Image processing	Electronics Engineering	
3OE561	Nano materials and Nano-technology		
3OE562	Numerical Methods for Engineers		
3OE563	Optimization Techniques		
3OE571	Business Intelligence	Computer Science and	
3OE 572	Cyber Security	Engineering	
3OE585	Geographic Information Systems		
3OE586	Data Visualization & Interpretation		
3OE587	Computational Engineering using Python	Information Technology	
3OE588	3D Modeling, Animation and Computer	7	
	Simulation		

(An Autonomous Institute)

Teaching and Evaluation Scheme

Second Year M.Tech. Program in Mechanical (Design Engineering)

Semester III

		Course	T	'each	ing S	cheme	Evaluation Scheme					
Catalan	Cal	NT		TD.	T D	Credits	C	M	Iarks			
Category	Code	Name	L	Т	P		Component	Max	Min for Passing			
									ISE 1	10		
DE	1DE(++	D C ' 11 ' 5	2	-	-	3	MSE	30	40	40		
PE	3DE6**	Professional elective 5	3				ISE 2	10				
							ESE	50	20			
	3DE690	Dissertation phase I				4	ISE	100	40	0		
PC	3DE691	Dissertation phase II	_	_	-	- 5	2	ISE	100	40	40	
	3DE091	Dissertation phase II				4	ESE	100	40	0		
		Mandatany Nan Chadit					ISE 1	35				
MC	3IC6**	Mandatory Non Credit	2	-	-	-	MSE	30	40	0		
		Course					ISE 2	35				
	Total			5	0	13	Total Total Co	Credits: ontact H				

Semester IV

	Course			each	ing	Scheme	Evaluation Scheme		
Catanan		Nama	_	T	D	Credits	C	Marks	
Category		P	Credits	Component	Max	Min for Passing			
	3DE692	Dissertation phase III			- 5	4	ISE	100	40
PC	3DE693	Dissertation phase IV	-	-		4	ISE	100	40
	3DE093	Dissertation phase IV				8	ESE	100	40
		Mandatany Nan Chadit				-	ISE 1	35	
MC	3IC6**	Mandatory Non Credit Course	2	-	-		MSE	30	40
		Course					ISE 2	35	
	Total			5	0	16		Credits: ontact H	

List of Professional elective 5					
3DE611 Advanced Finite Element Method					
3DE612	DE612 Multi-body Dynamics				
3DE613	Experimental Stress Analysis				
3DE614	Product life cycle management (PLM)				

	List of Mandatory Non Credit Course				
3IC601	Constitution of India				
3IC602	Pedagogy of Studies				
3IC603	Disaster Management				
3IC604	Value Education				

Semester	I	II	III	IV	Total
Credits	18	21	13	16	68

(An Autonomous Institute)

Curriculum Comparison for WCE and AICTE

M. Tech. **Mechanical (Design Engineering) % Credits** Sr. Category No. **AICTE AICTE Dept** Dept PC 12 17.6 1 12 17.6 2 PE 15 15 22.1 22.1 3 PCL 10 8 14.7 11.8 3 4 OE 3 4.4 4.4 PC 5 26 26 38.2 38.2 2 2 MC 2.9 2.9 6 7 PC 0 2 0 2.9 8 PC 0 0 0 0 MC 0 0 0 0 **Total Credits** 68 **68** 100 100

Category

Core theory courses (PC)

Programme Elective courses relevant to chosen specialization/branch& (PE)

Core/Elective laboratory courses (PCL)

Open subjects – Electives from other technical and /or emerging subjects (OE)

Dissertation (PC)

Mandatory course on Research Methodology (MC)

Pre-dissertation work and seminar (PC)

Summer Internship (PC)

Mandatory Non- credit Courses (MC)

(An Autonomous Institute)



Curriculum (Structure)

For

M. Tech. Programme in Mechanical (Heat Power Engineering) With Effect From

Academic Year

2018-2019 (F. Y. M. Tech.)

2019-2020 (S. Y. M. Tech.)

(An Autonomous Institute)
Teaching and Evaluation Scheme

First Year M. Tech. Program in Mechanical (Heat Power Engineering)

Semester I

		Course	7	Teachi	ng Sc	heme	Evalua	tion Sch	neme	
Category	Code	Name	L	Т	P	Credits	Component	N	Iarks	
Category	Code	Name		1	r	Credits	Component	Max	Min Pas	for sing
		D 1 11 1 C					ISE 1	10		
MC	3HP501	Research methodology for Mechanical Heat Power	2	_	_	2	MSE	30		40
IVIC	3111 301	Engineers	2	_	_	2	ISE 2	10		40
		Ziigiiieeis					ESE	50	20	
							ISE 1	10		
DC	3HP502	Thermodynamics and				2	MSE	30		40
PC	3HP302	combustion	3	-	_	3	ISE 2	10		40
							ESE	50	20	
						2	ISE 1	10		
D.C.	2110502						MSE	30		40
PC	3HP503	Advance fluid dynamics	3	-	-	3	ISE 2	10		40
							ESE	50	20	
							ISE 1	10		
DE	2110544	Professional elective 1			- -	3	MSE	30		40
PE	3HP5**	Troressional electric r	3	-			ISE 2	10		
							ESE	50	20	
							ISE 1	10		
PE	3HP5**	Professional elective 2	3	_	_	3	MSE	30		40
FL	SHEST	Fiolessional elective 2	3	_	_	3	ISE 2	10		40
							ESE	50	20	
PC	3HP551	Heat Power Engineering	_	4	_	2	ISE	50	2	0
rc	3111 331	Laboratory 1	_	4	_	2	ESE	50	2	0
	Heat Power Engineering				ISE	50	2	0		
PE	3HP552	Laboratory 2 (Professional Elective)	-	4	-	2	ESE	50	2	0
		Total	14	8	0	18	Total Total Co	Credits ontact H		,

	List of Professional Elective 1	List of Professional Elective 2		
3HP511	Computational methods in fluid flow and	3HP515	Design of hydro turbo machines	
3111 311	eat transfer			
3HP512	Nuclear Engineering	3HP516	Air conditioning system design	
3HP513	Energy conservation and management	3HP517	Gas turbines	
3HP514	Design of thermal turbo systems			

Walchand College of Engineering, Sangli (An Autonomous Institute)

Teaching and Evaluation Scheme

First Year M. Tech. Program in Mechanical (Heat Power Engineering)

Semester II

		Course	T		ng S	cheme	Evaluation Scheme			
Catagory	Code	Name	L	Т	P	Credits	Component	N	Aarks	
Category	Code	Name	L	1	r	Credits	Component	Max	Min Pass	
							ISE 1	10		
							MSE	30		
OE	2OE5**	Open Elective	3	-	-	3	ISE 2	10		
							ESE	50	20	
							ISE 1	10		
DC	2110521	A d				3	MSE	30		40
PC	3HP521	Advance Heat transfer	3	-	-	3	ISE 2	10		40
							ESE	50	20	
							ISE 1	10		
PC	3HP522	Steam engineering	3	_	_	3	MSE	30		40
10	3111 322	Steam engineering		_	_	3	ISE 2	10		+0
							ESE	50	20	
							ISE 1	10	0	40
PE	3HP5**	Professional elective 3	3	_	_	3	MSE	30		40
1 L	3111 3					3	ISE 2	10		
							ESE	50	20	
							ISE 1	10		
PE	3HP5**	Professional elective 4	3	_	_	3	MSE	30		40
1 12	31113						ISE 2	10		
							ESE	50	20	
PC	3HP571	Heat Power Engineering	_	4	_	2	ISE	50	2	
		Laboratory 3				_	ESE	50	2	
DE	2110572	Heat Power Engineering		1		2	ISE	50	2	U
PE	3HP572	Laboratory 4 (Professional Elective)	-	4	-	2	ESE	50	2	0
PC	3HP541	Pre-dissertation work & seminar	-	4	-	2	ISE	100	4	0
Total Total Total Total Cred Total Contact Tota				ı						

	List of Professional Elective 3	Li	ist of Professional Elective 4
3HP531	IC engine design	3HP535	Cryogenics
3HP532	Design of heat exchanger	3HP536	Modeling of IC engines
3HP533	Industrial refrigeration	3HP537	Industrial air conditioning
3HP534	Convective and irradiative heat transfer	3HP538	Computational fluid dynamics

	Open Elective			
Course Code	Course Name	Offered by Department		
3OE501	Design Optimization	Applied Machanias		
3OE502	Structural Health Monitoring and Smart Materials	Applied Mechanics		
3OE515	Life Cycle Assessment and Ecolabelling	Civil Engineering		
3OE516	Construction Equipment	Civil Engineering		
3OE529	Business Analytics			
3OE530	Industrial Safety			
3OE531	Operations Research			
3OE532	Cost Management of Engineering Projects	Mechanical Engineering		
3OE533	Composite Materials			
3OE534	Waste to Energy.			
3OE535	Project Based Learning with Embedded System			
3OE543	Control Techniques for Electrical Drives.	Electrical Engineering		
3OE544	Neural Network and Fuzzy Control.	Electrical Engineering		
3OE557	Remote sensing and Image Analysis			
3OE558	Automotive Electronics			
3OE559	Mechatronics			
3OE560	Digital Image processing	Electronics Engineering		
3OE561	Nano materials and Nano-technology			
3OE562	Numerical Methods for Engineers			
3OE563	Optimization Techniques			
3OE571	Business Intelligence	Computer Science and		
3OE 572	Cyber Security	Engineering		
3OE585	Geographic Information Systems			
3OE586	Data Visualization & Interpretation			
3OE587	Computational Engineering using Python	Information Technology		
3OE588	3D Modeling, Animation and Computer	1		
	Simulation			

Walchand College of Engineering, Sangli (An Autonomous Institute)

Teaching and Evaluation Scheme Second Year M.Tech. Program in Mechanical (Heat Power Engineering)

Semester III

		Course	Л	Teachi	ng Sc	heme	Evalua	tion Sch	eme	
C-4	Cada	NT	_	T	ъ	C 1:4	C	M	[arks	
Category	Code	Name	L	Т	P	Credits	Component	Max	Min Pass	
							ISE 1	10		
55	OTTO Calcula	Professional elective 5		3 -			MSE	30		40
PE	3HP6**		3		-	3	ISE 2	10		
							ESE	50	20	
	3HP690	Dissertation phase I				4	ISE	100	4	0
PC	3HP691	Dissertation phase II	_	-	5	2	ISE	100	4	0
	3017091	Dissertation phase II				4	ESE	100	4	0
							ISE 1	35		
MC	3IC6**	Mandatory Non Credit Course	2	-	-	_	MSE	30	4	0
							ISE 2	35]	
	Total Total Credits: 13 Total Credits: 13 Total Contact Hrs:									

Semester IV

		Course	T	'each	ing	Scheme	Evaluation Scheme			
Catagory	Code	Name	_	Т	P	Credits	Commonant	Marks		
Category			L	1		Credits	Component	Max	Min for Passing	
	3HP692	Dissertation phase III	_			4	ISE	100	40	
PC	3HP693	Dissertation phase IV	-	-	5	4	ISE	100	40	
	эпгоээ	Dissertation phase IV				8	ESE	Max 100	40	
					-		ISE 1	35		
MC	3IC6**	Mandatory Non Credit Course	2	-		-	MSE	30	40	
							ISE 2	35		
	Total			-	5	16				

	List of Professional Elective 5					
3HP611	Design of solar and wind systems					
3HP612	Advance mathematical methods in engineering					
3HP613	Food preservation and cold chain management					
3HP614	Design of thermal systems					

	List of Mandatory Non Credit Course					
3IC601	Constitution of India					
3IC602	Pedagogy of Studies					
3IC603	Disaster Management					
3IC604	Value Education					

Semester	I	II	III	IV	Total
Credits	18	21	13	16	68

Walchand College of Engineering, Sangli (An Autonomous Institute) Curriculum Comparison for WCE and AICTE

	M. Tech. Mechanical (Heat Power Engineering)									
Sr.	Category	Credi	its	%						
No.	, and the second	AICTE	12 12 15 15 10 8 3 3 26 26 2 2	AICTE	Dept					
1	PC	12	12	17.6	17.6					
2	PE	15	15	22.1	22.1					
3	PCL	10	8	14.7	11.8					
4	OE	3	3	4.4	4.4					
5	PC	26	26	38.2	38.2					
6	MC	2	2	2.9	2.9					
7	PC	0	2	0	2.9					
8	PC	0	0	0	0					
9	MC	0	0	0	0					
Tot	al Credits	68 68		100	100					

Category

Core theory courses (PC)

Programme Elective courses relevant to chosen specialization/ branch& (PE)

Core/Elective laboratory courses (PCL)

Open subjects – Electives from other technical and /or emerging subjects (OE)

Dissertation (PC)

Mandatory course on Research Methodology (MC)

Pre-dissertation work and seminar (PC)

Summer Internship (PC)

Mandatory Non-credit Courses (MC)

(An Autonomous Institute)



Curriculum (Structures)

for

M.Tech. Programme in Mechanical (Production Engineering)

With Effect From

Academic Year

2018-2019 (F. Y. M. Tech.)

2019-2020 (S. Y. M. Tech.)

(An Autonomous Institute)
Teaching and Evaluation Scheme

First Year M. Tech. Program in Mechanical (Production Engineering)

Semester I

		Course	1	Teachi	ng Sc	heme	Evaluation Scheme			
Category	Code	Name	L	Т	P	Credits	Component	N	Iarks	
Category	Coue	Name	L	1	1	Credits	Component	Max	Min for Passing	
							ISE 1	10		
MC	3PR501	Research Methodology for Mechanical Production	2	_	_	2	MSE	30		40
MIC	Engineers		_	_	2	ISE 2	10		40	
		ingineers .					ESE	50	20	
							ISE 1	10		
PC	2DD 502	D502 M C . :	2		- -	3	MSE	30		40
PC	3PR502	Manufacturing processes	3	-		3	ISE 2	10		40
							ESE	50	20	
							ISE 1	10		
D.C.	3PR503	Advanced Joining Technology	2				MSE	30		40
PC			3	-	-	3	ISE 2	10		40
							ESE	50	20	
		B. C					ISE 1	10		
PE	3PR5**	Professional elective 1	3		- -	3	MSE	30		40
PE	SPRS		3	-		3	ISE 2	10		
							ESE	50	20	
		Professional elective 2					ISE 1	10		
PE	3PR5**	Floressional elective 2	3	_	_	3	MSE	30		40
12	3110						ISE 2	10		10
							ESE	50	20	
PC	3PR551	Production Engineering	_	4	_	2	ISE	50	2	
		Laboratory 1		•		_	ESE	50	2	
DE	2DD 5.52	Production Engineering					ISE	50	2	0
PE	3PR552	Laboratory 2 (Professional Elective)	-	4	-	2	ESE	50	2	0
		Total	14	8	0	18	Total Credits: 18 Total Contact Hrs: 22			,

	List of Professional Elective 1	Li	ist of Professional Elective 2
3PR511	Finite Element method in Manufacturing	3PR515	Project Management
3PR512	Industrial Hydraulics and Pneumatics	3PR516	Design for Manufacturing and Assembly
3PR513	Quality Engineering for Manufacturing	3PR517	Precision Engineering
3PR514	Manufacturing of non metallic products	3PR518	Costing and Cost control

Walchand College of Engineering, Sangli (An Autonomous Institute)

(An Autonomous Institute)
Teaching and Evaluation Scheme

First Year M. Tech. Program in Mechanical (Production Engineering)

Semester II

		Course	T	'eachi	ing S	cheme	Evalua	ation Sc	heme	
Catagomy	Code	Name	L	Т	P	Credits	Component		Mark	S
Category	Code	Name	L	1	I	Credits	Component	Max		n for ssing
							ISE 1	10		
0.5	2055						MSE	30		
OE	2OE5**	Open Elective	3	-	-	3	ISE 2	10		
							ESE	50	20	
							ISE 1	10		
DC	2DD 521	Advanced Manufacturing				2	MSE	30		40
PC	3PR521	Processes	3	-	-	3	ISE 2	10		40
							ESE	50	20	
							ISE 1	10		
DC	3PR522	Industrial Automation and	2			3	MSE	30		40
PC	SFK322	Mechatronics	3	-	-	3	ISE 2	10		40
							ESE	50	20	
							ISE 1	10	10	40
PE	3PR5**	Professional elective 3	3	_	_	3	MSE	30		40
FL	JF KJ · ·		3	_	-	3	ISE 2	10		
							ESE	50	20	
							ISE 1	10		
PE	3PR5**	Professional elective 4	3	_	_	3	MSE	30		40
112	STRS						ISE 2	10		
							ESE	50	20	
PC	3PR571	Production Engineering	_	4	_	2	ISE	50		20
10	311071	Laboratory 3					ESE	50		20
DE.	200 552	Production Engineering					ISE	50	,	20
PE	3PR572	Laboratory 4 (Professional Elective)	-	4	-	2	ESE	50	,	20
PC	3PR541	Pre-dissertation work and seminar	-	4	-	2	ISE	100	4	40
	•	Total	15	12	0	21	Total Credits: 21 Total Hrs: 24			

List of Professional Elective 3		List of Professional Elective 4		
3PR531	CAD / CAM / CNC	3PR535	PLM – Product Lifecycle Management	
3PR532	Additive Manufacturing	3PR536	Processing of Plastics and Composites	
3PR533	Micro-Electro-Mechanical Systems	3PR537	Advanced Tool Design	
3PR534	Modeling and simulation in manufacturing	3PR538	Sustainable Manufacturing	

	Open Elective		
Course Code	Course Name	Offered by Department	
3OE501	Design Optimization	Amaliad Mashanias	
3OE502	Structural Health Monitoring and Smart Materials	Applied Mechanics	
3OE515 Life Cycle Assessment and Ecolabelling		Civil Engineering	
3OE516	Construction Equipment	- Civil Engineering	
3OE529	Business Analytics		
3OE530	Industrial Safety		
3OE531	Operations Research		
3OE532	Cost Management of Engineering Projects	Mechanical Engineering	
3OE533	Composite Materials		
3OE534	Waste to Energy.		
3OE535	Project Based Learning with Embedded System		
3OE543 Control Techniques for Electrical Drives.		Electrical Engineering	
3OE544	Neural Network and Fuzzy Control.	- Electrical Engineering	
3OE557	Remote sensing and Image Analysis		
3OE558	Automotive Electronics	1	
3OE559	Mechatronics		
3OE560	Digital Image processing	Electronics Engineering	
3OE561	Nano materials and Nano-technology		
3OE562	Numerical Methods for Engineers		
3OE563	Optimization Techniques		
3OE571	Business Intelligence	Computer Science and	
3OE 572	Cyber Security	Engineering	
3OE585	Geographic Information Systems		
3OE586	Data Visualization & Interpretation		
3OE587	Computational Engineering using Python	Information Technology	
3OE588	3D Modeling, Animation and Computer		
	Simulation		

(An Autonomous Institute)

Teaching and Evaluation Scheme

Second Year M.Tech. Program in Mechanical (Production Engineering)

Semester III

Course			Teaching Scheme				Evaluation Scheme		
C-4		N	_	TD.		G W		Marks	
Category	Code	Name	LT		P	Credits	Component	Max	Min for Passing
							ISE 1	10	
	200 (11	Professional elective 5		-	-	- 3	MSE	30	40
PE	3PR6**		3				ISE 2	10	
							ESE	50	20
	3PR690	Dissertation phase I				4	ISE	100	40
PC	3PR691	Dissertation phase II	-	5	-	2	ISE	100	40
	3PK091					4	ESE	100	40
	3IC6**	IC6** Mandatory Non Credit Course					ISE 1	35	40
MC			2	-	-		MSE	30	
							ISE 2	35	
				5 5		0 13	Total Credits: 13		
	Total			3	U	13	Total Co	ontact H	rs: 10

Semester IV

Course			Teaching Scheme				Evaluation Scheme		
Category	Code Name	NT	_	T	Ъ	C - 124	C	Marks	
		L	T	P	Credits	Component	Max	Min for Passing	
	3PR692	Dissertation phase III		5	-	4	ISE 3	100	40
PC	3PR693	Dissertation phase IV	_			4	ISE 4	100	40
						8	ESE 2	100	40
	31(h**	Mandatory Non Credit Course	2	1	-		ISE 1	35	40
MC							MSE	30	
							ISE 2	35	
	Total				0	16	Total Credits: 16 Total Contact Hrs: 7		

	List of Professional Elective 5				
3PR611	Material Handling Systems				
3PR612	Manufacturing Planning and Control				
3PR613	Organizational Behavior				
3PR614	Flexible Manufacturing System				
3PR615	Digital Manufacturing and Industry 4.0				

List of Mandatory Non Credit Course				
3IC601	Constitution of India			
3IC602	Pedagogy of Studies			
3IC603	Disaster Management			
3IC604	Value Education			

Semester	I	II	III	IV	Total
Credits	18	21	13	16	68

(An Autonomous Institute)

Curriculum Comparison for WCE and AICTE

	M. Tech. Mechanical (Production Engineering)								
Sr.	Category	Credi	its	%					
No.		AICTE	Dept	AICTE	Dept				
1	PC	12	12	17.6	17.6				
2	PE	15	15	22.1	22.1				
3	PCL	10	8	14.7	11.8				
4	OE	3	3	4.4	4.4				
5	PC	26	26	38.2	38.2				
6	MC	2	2	2.9	2.9				
7	PC	0	2	0	2.9				
8	PC	0	0	0	0				
9	MC	0	0	0	0				
Tot	al Credits	68	68	100	100				

Category

Core theory courses (PC)

Programme Elective courses relevant to chosen specialization/ branch& (PE)

Core/Elective laboratory courses (PCL)

Open subjects – Electives from other technical and /or emerging subjects (OE)

Dissertation (PC)

Mandatory course on Research Methodology (MC)

Pre-dissertation work and seminar (PC)

Summer Internship (PC)

Mandatory Non- credit Courses (MC)