



Faculty of Engineering & Technology

M. Tech.
(Mechanical Engineering)
(2015-16)

Program Structure

M.Tech. (ME) Course Structure (2015-16)
(Production Engineering)

Semester - I

<u>Theory Papers</u>								
Code	Title Of Subject	L	P	T	IA	EA	Total	Credits
MTMEPE101	Computer aided process planning	3	0	1	50	100	150	4
MTMEPE102	Quality Management Systems	3	0	1	50	100	150	4
MTMEPE103	Ergonomics and Work System Design	3	0	1	50	100	150	4
Electives (Any One)								
MTMEPE104A	Energy Management	3	0	1	50	100	150	4
MTMEPE104B	Machine tool design	3	0	1	50	100	150	4
MTMEPE104C	Lean Manufacturing,	3	0	1	50	100	150	4
Practical/Viva Voce								
		L	P	T	Sessional	Practical	Total	Credits
MTMEPE105	Ergonomics and Work System Design Lab	0	2	0	60	40	100	1
Total		12	2	4	260	440	700	17

Semester - II

Theory Papers								
Code	Title Of Subject	L	P	T	IA	EA	Total	Credits
MTMEPE201	Enterprise Resource Planning	3	0	1	50	100	150	4
MTMEPE202	CNC Technology & Programming	3	0	1	50	100	150	4
MTMEPE203	Reliability, Maintenance Management & Safety	3	0	1	50	100	150	4
Electives (Any One)								
MTMEPE204A	Product Engineering	3	0	1	50	100	150	4
MTMEPE204B	Mechatronics	3	0	1	50	100	150	4
MTMEPE204C	Cryogenic Systems	3	0	1	50	100	150	4
Practical/Viva Voce								
		L	P	T	Sessional	Practical	Total	Credits
MTMEPE 205	CNC Technology & Programming Lab	0	2	0	60	40	100	1
Total		12	2	4	260	440	700	17

Semester - III

Theory Papers								
Code	Title Of Subject	L	P	T	IA	EA	Total	Credits
MTMEPE301	Automated material handling systems	3	0	1	50	100	150	4
MTMEPE302	Supply chain practice & procedure	3	0	1	50	100	150	4
MTMEPE303	Robotics	3	0	1	50	100	150	4
Electives (Any One)								
MTMEPE304A	Inventory management	3	0	1	50	100	150	4
MTMEPE304B	Cellular manufacturing systems	3	0	1	50	100	150	4
MTMEPE304C	Concurrent Engineering	3	0	1	50	100	150	4
Practical/Viva Voce								
		L	P	T	Sessional	Practical	Total	Credits
MTMEPE305	Seminar	0	-	-	60	40	100	2
Total		12	0	4	260	440	700	18

Semester - IV

Code	Title Of Subject	L	T	P	IA	EA	Total	Credits
MTMEPE401	Dissertation	0	0	0	300	400	700	12
Total		-	-	-	300	400	700	12



JAGADGURUKUL
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Faculty of Engineering & Technology

M. Tech.
(Mechanical Engineering)
(2016-17)

Program Structure

M.Tech. (ME) Course Structure (2016-17)
(Production Engineering)

Semester - I

<u>Theory Papers</u>								
Code	Title Of Subject	L	P	T	IA	EA	Total	Credits
MTMEPE101	Computer aided process planning	3	0	1	50	100	150	4
MTMEPE102	Quality Management Systems	3	0	1	50	100	150	4
MTMEPE103	Ergonomics and Work System Design	3	0	1	50	100	150	4
Electives (Any One)								
MTMEPE104A	Energy Management	3	0	1	50	100	150	4
MTMEPE104B	Machine tool design	3	0	1	50	100	150	4
MTMEPE104C	Lean Manufacturing,	3	0	1	50	100	150	4
Practical/Viva Voce								
		L	P	T	Sessional	Practical	Total	Credits
MTMEPE105	Ergonomics and Work System Design Lab	0	2	0	60	40	100	1
Total		12	2	4	260	440	700	17

Semester - II

Theory Papers								
Code	Title Of Subject	L	P	T	IA	EA	Total	Credits
MTMEPE201	Enterprise Resource Planning	3	0	1	50	100	150	4
MTMEPE202	CNC Technology & Programming	3	0	1	50	100	150	4
MTMEPE203	Reliability, Maintenance Management & Safety	3	0	1	50	100	150	4
Electives (Any One)								
MTMEPE204A	Product Engineering	3	0	1	50	100	150	4
MTMEPE204B	Mechatronics	3	0	1	50	100	150	4
MTMEPE204C	Cryogenic Systems	3	0	1	50	100	150	4
Practical/Viva Voce								
		L	P	T	Sessional	Practical	Total	Credits
MTMEPE 205	CNC Technology & Programming Lab	0	2	0	60	40	100	1
Total		12	2	4	260	440	700	17

Semester - III

Theory Papers								
Code	Title Of Subject	L	P	T	IA	EA	Total	Credits
MTMEPE301	Automated material handling systems	3	0	1	50	100	150	4
MTMEPE302	Supply chain practice & procedure	3	0	1	50	100	150	4
MTMEPE303	Robotics	3	0	1	50	100	150	4
Electives (Any One)								
MTMEPE304A	Inventory management	3	0	1	50	100	150	4
MTMEPE304B	Cellular manufacturing systems	3	0	1	50	100	150	4
MTMEPE304C	Concurrent Engineering	3	0	1	50	100	150	4
Practical/Viva Voce								
		L	P	T	Sessional	Practical	Total	Credits
MTMEPE305	Seminar	0	-	-	60	40	100	2
Total		12	0	4	260	440	700	18

Semester - IV

Code	Title Of Subject	L	T	P	IA	EA	Total	Credits
MTMEPE401	Dissertation	0	0	0	300	400	700	12
Total		-	-	-	300	400	700	12



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Faculty of Engineering & Technology

M. Tech.
(Mechanical Engineering)
(2017-18)

Program Structure

M.Tech. (ME) Course Structure (2017-18)
(Production Engineering)

Semester - I

<u>Theory Papers</u>								
Code	Title Of Subject	L	P	T	IA	EA	Total	Credits
MTMEPE101	Computer aided process planning	3	0	1	50	100	150	4
MTMEPE102	Quality Management Systems	3	0	1	50	100	150	4
MTMEPE103	Ergonomics and Work System Design	3	0	1	50	100	150	4
Electives (Any One)								
MTMEPE104A	Energy Management	3	0	1	50	100	150	4
MTMEPE104B	Machine tool design	3	0	1	50	100	150	4
MTMEPE104C	Lean Manufacturing,	3	0	1	50	100	150	4
Practical/Viva Voce								
		L	P	T	Sessional	Practical	Total	Credits
MTMEPE105	Ergonomics and Work System Design Lab	0	2	0	60	40	100	1
Total		12	2	4	260	440	700	17

Semester - II

Theory Papers								
Code	Title Of Subject	L	P	T	IA	EA	Total	Credits
MTMEPE201	Enterprise Resource Planning	3	0	1	50	100	150	4
MTMEPE202	CNC Technology & Programming	3	0	1	50	100	150	4
MTMEPE203	Reliability, Maintenance Management & Safety	3	0	1	50	100	150	4
Electives (Any One)								
MTMEPE204A	Product Engineering	3	0	1	50	100	150	4
MTMEPE204B	Mechatronics	3	0	1	50	100	150	4
MTMEPE204C	Cryogenic Systems	3	0	1	50	100	150	4
Practical/Viva Voce								
		L	P	T	Sessional	Practical	Total	Credits
MTMEPE 205	CNC Technology & Programming Lab	0	2	0	60	40	100	1
Total		12	2	4	260	440	700	17

Semester - III

Theory Papers								
Code	Title Of Subject	L	P	T	IA	EA	Total	Credits
MTMEPE301	Automated material handling systems	3	0	1	50	100	150	4
MTMEPE302	Supply chain practice & procedure	3	0	1	50	100	150	4
MTMEPE303	Robotics	3	0	1	50	100	150	4
Electives (Any One)								
MTMEPE304A	Inventory management	3	0	1	50	100	150	4
MTMEPE304B	Cellular manufacturing systems	3	0	1	50	100	150	4
MTMEPE304C	Concurrent Engineering	3	0	1	50	100	150	4
Practical/Viva Voce								
		L	P	T	Sessional	Practical	Total	Credits
MTMEPE305	Seminar	0	-	-	60	40	100	2
Total		12	0	4	260	440	700	18

Semester - IV

Code	Title Of Subject	L	T	P	IA	EA	Total	Credits
MTMEPE401	Dissertation	0	0	0	300	400	700	12
Total		-	-	-	300	400	700	12



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Faculty of Engineering & Technology

M. Tech.
(Mechanical Engineering)
(2018-19)

Program Structure

M.Tech. (ME) Course Structure (2018-19)
(Production Engineering)

Semester - I

Course Number	Subject	Scheme Of Studies Per Week			IA	EA	Total	Credits
		L	T	P				
MTMEPE 101	Computer aided process planning	3	0	0	50	100	150	3
MTMEPE 102	Quality Management Systems	3	0	0	50	100	150	3
Electives(Any One)								
MTMEPE 103A	Ergonomics and Work System Design	3	0	0	50	100	150	3
MTMEPE 103B	Energy Management	3	0	0	50	100	150	3
MTMEPE 103C	Machine tool design	3	0	0	50	100	150	3
Electives(Any One)								
MTMEPE 104A	Lean Manufacturing	3	0	0	50	100	150	3
MTMEPE 104B	Product Engineering	3	0	0	50	100	150	3
MTMEPE 104C	Mechatronics	3	0	0	50	100	150	3
MTMEPE 105	Research Methodology and IPR	2	0	0	50	100	150	2
MTMEPE 106	Audit Course – 1 AUDIT 1 and 2 : English for Research Paper Writing AUDIT 1 and 2: Disaster Management AUDIT 1 and 2 : Sanskrit For Technical Knowledge AUDIT 1 and 2 : Value Education AUDIT 1 and 2 : Constitution Of India AUDIT 1 and 2 : Pedagogy Studies AUDIT 1 and 2: Stress Management by Yoga AUDIT 1 and 2: Personality Development through Life Enlightenment Skills	2	0	0	0	0	0	0
Practical/Viva Voce								
					Sessional	Practical	Total	Credits
MTMEPE 107	Work System Design Lab	0	0	4	60	40	100	2
MTMEPE 108	Manufacturing Lab	0	0	4	60	40	100	2
Total		16	0	8	370	580	950	18

Semester - II

Course Number	Subject	L	T	P	IA	EA	Total	Credits
MTMEPE 201	Enterprise Resource Planning	3	0	0	50	100	150	3
MTMEPE 202	CNC Technology & Programming	3	0	0	50	100	150	3
Elective -1 (Any One)								
MTMEPE 203A	Reliability, Maintenance Management & Safety	3	0	0	50	100	150	3
MTMEPE 203B	Cryogenic Systems	3	0	0	50	100	150	3
MTMEPE 203C	Inventory management	3	0	0	50	100	150	3
Elective -2 (Any One)								
MTMEPE 204A	Cellular manufacturing systems	3	0	0	50	100	150	3
MTMEPE 204B	Concurrent Engineering	3	0	0	50	100	150	3
MTMEPE 204C	Robotics	3	0	0	50	100	150	3
MTMEPE 205	Audit Course – 2 AUDIT 1 and 2 : English for Research Paper Writing AUDIT 1 and 2: Disaster Management AUDIT 1 and 2 : Sanskrit For Technical Knowledge AUDIT 1 and 2 : Value Education AUDIT 1 and 2 : Constitution Of India AUDIT 1 and 2 : Pedagogy Studies AUDIT 1 and 2: Stress Management by Yoga AUDIT 1 and 2: Personality Development through Life Enlightenment Skills	2	0	0	0	0	0	0
Practical/Viva Voce								
MTMEPE 206	CNC Technology Lab	0	0	4	60	40	100	2
MTMEPE 207	Robotics Lab	0	0	4	60	40	100	2
MTMEPE 208	Mini Project with Seminar	2	0	0	60	40	100	2
Total		14	0	8	380	520	900	18

Semester - III

Course Number	Subject	L	T	P	IA	EA	Total	Credits
Elective -1 (Any One)								
MTMEPE 301A	Automated material handling systems	3	0	0	50	100	150	3
MTMEPE 301B	Supply chain practice & procedure	3	0	0	50	100	150	3
Elective -2 (Any One)								
MTMEPE 302A	Business Analytics	3	0	0	50	100	150	3
MTMEPE 302B	Industrial Safety	3	0	0	50	100	150	3
MTMEPE 302C	Operations Research	3	0	0	50	100	150	3
MTMEPE 302D	Cost Management of Engineering Projects	3	0	0	50	100	150	3
MTMEPE 302E	Composite Materials	3	0	0	50	100	150	3
MTMEPE 302F	Waste to Energy	3	0	0	50	100	150	3
Practical/Viva Voce								
MTMEPE 303	Dissertation-I /Industrial Project	0	0	2	60	40	100	10
Total		6	0	2	160	240	400	16

Semester - IV

Course Number	Subject	Scheme Of Studies Per Week			IA	EA	Total	Credits
		L	T	P				
MTMEPE 401	Dissertation II	0	0	32	300	400	700	16
				Total	300	400	700	16



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Faculty of Engineering & Technology

M. Tech.
(Mechanical Engineering)
(2019-20)

Program Structure

M.Tech. (ME) Course Structure (2019-20)
(Production Engineering)

Semester - I

Course Number	Subject	Scheme Of Studies Per Week			IA	EA	Total	Credits
		L	T	P				
MTMEPE 101	Computer aided process planning	3	0	0	50	100	150	3
MTMEPE 102	Quality Management Systems	3	0	0	50	100	150	3
Electives(Any One)								
MTMEPE 103A	Ergonomics and Work System Design	3	0	0	50	100	150	3
MTMEPE 103B	Energy Management	3	0	0	50	100	150	3
MTMEPE 103C	Machine tool design	3	0	0	50	100	150	3
Electives(Any One)								
MTMEPE 104A	Lean Manufacturing	3	0	0	50	100	150	3
MTMEPE 104B	Product Engineering	3	0	0	50	100	150	3
MTMEPE 104C	Mechatronics	3	0	0	50	100	150	3
MTMEPE 105	Research Methodology and IPR	2	0	0	50	100	150	2
MTMEPE 106	Audit Course – 1 AUDIT 1 and 2 : English for Research Paper Writing AUDIT 1 and 2: Disaster Management AUDIT 1 and 2 : Sanskrit For Technical Knowledge AUDIT 1 and 2 : Value Education AUDIT 1 and 2 : Constitution Of India AUDIT 1 and 2 : Pedagogy Studies AUDIT 1 and 2: Stress Management by Yoga AUDIT 1 and 2: Personality Development through Life Enlightenment Skills	2	0	0	0	0	0	0
Practical/Viva Voce								
					Sessional	Practical	Total	Credits
MTMEPE 107	Work System Design Lab	0	0	4	60	40	100	2
MTMEPE 108	Manufacturing Lab	0	0	4	60	40	100	2
Total		16	0	8	370	580	950	18

Semester - II

Course Number	Subject	L	T	P	IA	EA	Total	Credits
MTMEPE 201	Enterprise Resource Planning	3	0	0	50	100	150	3
MTMEPE 202	CNC Technology & Programming	3	0	0	50	100	150	3
Elective -1 (Any One)								
MTMEPE 203A	Reliability, Maintenance Management & Safety	3	0	0	50	100	150	3
MTMEPE 203B	Cryogenic Systems	3	0	0	50	100	150	3
MTMEPE 203C	Inventory management	3	0	0	50	100	150	3
Elective -2 (Any One)								
MTMEPE 204A	Cellular manufacturing systems	3	0	0	50	100	150	3
MTMEPE 204B	Concurrent Engineering	3	0	0	50	100	150	3
MTMEPE 204C	Robotics	3	0	0	50	100	150	3
MTMEPE 205	Audit Course – 1 AUDIT 1 and 2 : English for Research Paper Writing AUDIT 1 and 2: Disaster Management AUDIT 1 and 2 : Sanskrit For Technical Knowledge AUDIT 1 and 2 : Value Education AUDIT 1 and 2 : Constitution Of India AUDIT 1 and 2 : Pedagogy Studies AUDIT 1 and 2: Stress Management by Yoga AUDIT 1 and 2: Personality Development through Life Enlightenment Skills	2	0	0	0	0	0	0
Practical/Viva Voce								
MTMEPE 206	CNC Technology Lab	0	0	4	60	40	100	2
MTMEPE 207	Robotics Lab	0	0	4	60	40	100	2
MTMEPE 208	Mini Project with Seminar	2	0	0	60	40	100	2
Total		14	0	8	380	520	900	18

Semester - III

Course Number	Subject	L	T	P	IA	EA	Total	Credits
Elective -1 (Any One)								
MTMEPE 301A	Automated material handling systems	3	0	0	50	100	150	3
MTMEPE 301B	Supply chain practice & procedure	3	0	0	50	100	150	3
Elective -2 (Any One)								
MTMEPE 302A	Business Analytics	3	0	0	50	100	150	3
MTMEPE 302B	Industrial Safety	3	0	0	50	100	150	3
MTMEPE 302C	Operations Research	3	0	0	50	100	150	3
MTMEPE 302D	Cost Management of Engineering Projects	3	0	0	50	100	150	3
MTMEPE 302E	Composite Materials	3	0	0	50	100	150	3
MTMEPE 302F	Waste to Energy	3	0	0	50	100	150	3
Practical/Viva Voce								
MTMEPE 303	Dissertation-I /Industrial Project	0	0	2	60	40	100	10
Total		6	0	2	160	240	400	16

Semester - IV

Course Number	Subject	Scheme Of Studies Per Week			IA	EA	Total	Credits
		L	T	P				
MTMEPE 401	Dissertation II	0	0	32	300	400	700	16
				Total	300	400	700	16