

Department of Production Engineering  
GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA  
**MASTER OF TECHNOLOGY**  
**(PRODUCTION ENGINEERING) 2019**

# Syllabus Scheme for Master of Technology Production Engineering 2019 onwards

**Total Credits: 19+18+16+16=69**

## 1<sup>st</sup> Semester

Sr. No.	Code	Course Type	Course Name	Teaching Scheme			Credits	Type of Subject	Marks		
				L	T	P			Int.	Ext.	Total
1	MPE-101	Core Course	Advanced Metal Forming	3	0	0	3	Theory	50	100	150
2	MPE-102	Core Course	Advanced Metal Casting	3	0	0	3	Theory	50	100	150
3	MPE-XXX	Program Elective	<b>Program Elective I (Any one)</b>	3	0	0	3	Theory	50	100	150
	MPE-105		Entrepreneurship								
	MPE-106		Jig Fixture and Press Design								
	MPE-107		Advanced Plant Layout Design								
4	MPE-XXX	Program Elective	<b>Program Elective II (Any one)</b>	3	0	0	3	Theory	50	100	150
	MPE-108		Product Design and Development								
	MPE-109		Additive Manufacturing Process and Applications								
	MPE-110		Flexible Manufacturing Systems								
5	LMPE-101	Core Course	Advanced Manufacturing processes Laboratory	0	0	4	2	Practical	50	50	100
6	LMPE-102	Core Course	Advanced Machining and Casting processes Laboratory	0	0	4	2	Practical	50	50	100
7	MRM-101	Core Course	Research Methodology and IPR	3	0	0	3	Theory	50	100	150
8	MAC-105	Audit Course 1	Constitution of India	2	0	0	0	Theory	50	-	50
<b>Total</b>				17	0	12	19		400	600	1000

## 2<sup>nd</sup> Semester

Sr. No.	Code	Course Type	Course Name	Teaching Scheme			Credits	Type of Subject	Marks		
				L	T	P			Int.	Ext.	Total
1	MPE-103	Core Course	Advanced Welding Processes	3	0		3	Theory	50	100	150
2	MPE-104	Core Course	Advanced Metal Cutting	3	0		3	Theory	50	100	150
3	MPE-XXX	Program Elective	<b>Program Elective III (Any one)</b>	3	0		3	Theory	50	100	150
	MPE-111		Production and Inventory Control								
	MPE-112		Quality Assurance								
	MPE-113		Advanced Industrial Tribology								
4	MPE-XXX	Program Elective	<b>Program Elective IV (Any one)</b>	3	0		3	Theory	50	100	150
	MPE-114		Industrial Robotic Design								
	MPE-115		Non-Conventional Machining Process								
	MPE-116		Computer Aided Design								
5	LMPE-103	Core Course	Advanced Welding Process Laboratory	0	0	4	2	Practical	50	50	100
6	LMPE-104	Core Course	Mechanical and Morphological characterization Laboratory	0	0	4	2	Practical	50	50	100
7	LMPPE-101	Core Course	Project	0	0	4	2	Practical	50	50	100
8	MAC-106	Audit Course 2	Pedagogy Studies	2	0	0	0	Theory	50	-	50
<b>Total</b>				14	0	12	18		400	550	950

**3<sup>rd</sup> Semester**

Sr. No.	Code	Course Type	Course Name	Teaching Scheme			Credits	Type of Subject	Marks		
				L	T	P			Int.	Ext.	Total
1	MPE-XXX	Program Elective	<b>Program Elective V (Any one)</b>	3	0	0	3	Theory	50	100	150
	MPE-117		Operations Management								
	MEP-118		Materials Management								
	MPE-119		Advance Operations Research								
2	MOZZ-XXX	Open Elective	Open Elective 1	3	0	0	3	Theory	50	100	150
3	MPTPE-101	Pre-thesis	Formulation of research problem	0	0	20	10	Practical	10 0	100	200
Total				6	0	20	16		20 0	300	500

**4<sup>th</sup> Semester**

Sr. No.	Code	Course Type	Course Name	Teaching Scheme			Credits	Type of Subject	Marks		
				L	T	P			Int.	Ext.	Total
1	MTPE-101	Thesis	Thesis work	0	0	32	16	Practical	10 0	200	300
Total				0	0	32	16		10 0	200	300

**List of Electives**

<b>Audit course 1 &amp; 2</b>	<b>List of Open Elective</b>	<b>Open Elective offered by Production Engineering</b>
MAC-101 English for Research Paper Writing MAC-102 Disaster Management MAC-103 Sanskrit for Technical Knowledge MAC-104 Value Education MAC-105 Constitution of India MAC-106 Pedagogy Studies MAC-107 Stress Management by Yoga MAC-108 Personality Development through Life Enlightenment Skills.	1. Business Analytics 2. Industrial Safety 3. Operations Research 4. Cost Management of Engineering Projects 5. Composite Materials 6. Waste to Energy	MPE-120 Industrial Safety MPE-121 Operations Research MPE-122 Composite Materials

**Note: Eight questions out of entire syllabus and well-distributed are to be set; students are required to attempt 5 questions.**