# GOVT. COLLEGE OF ENGINEERING



## **CURRICULUM**

Master of Technology M. Tech. (Mechanical Engineering Design) (Part-Time) 2018-2019

Department of Mechanical Engineering

# GOVERNMENT COLLEGE OF ENGINEERING, AURANGABAD

(An Autonomous Institute of Government of Maharashtra)

# Department of Mechanical Engineering

Teaching and Evaluation Scheme

Master of Technology M. Tech. (Mechanical Engineering Design)(Part - Time) Programme (2018-19)

SEMESTER-I

Sr. No.	Course Code	Subject	Scheme of Teaching (Hrs/Week) and Credits				Scheme of Evaluation (Marks)					
			L	Т	P	Cr	Theory			TW	PR	Total
							CT	TA	ESE	1	v /v	
1	ME52001	Machine Stress Analysis	3	-		3	20	20	60	3	1	100
2	ME 52002 To ME 52004	Program Elective I	3	-	-	3	20	20	60	-		100
3	GE 51001	Research Methodology & IPR	2	1 8	·	2	20	20	60	-		100
4	ME 52005	Lab 1: Machine Stress Analysis	-	ë	4	2		-	-	25	25	50
		TOTAL	8	0	4	10	60	60	180	25	25	350

#### SEMESTER-II

Sr. No.	Course Code	Subject		Sche Tead rs/W Cre	hin	g and	Scheme of Evaluation (Marks)						
			L	T	P	Cr	Theory			TW	PR/	Total	
							CT	TA	ESE		VV		
1	ME 52006	Advanced Mathematical Methods	3	-	1 20	3	20	20	60	-	<u> </u>	100	
2	ME 52007 To ME 52009	Program Elective II	3	-		3	20	20	60	-		100	
3	ME 52010	Lab 2: Advanced Mathematical Methods	æc	DE:	4	2	=	-	-	25	25	50	
4		Audit Course I	2		-	90)	-	=	2				
		TOTAL	8	0	4	08	40	40	120	25	25	250	
		Total First Year	16	0	8	18	100	100	300	50	50	600	



SEMESTER-III

Sr. No.	Course Code	Subject	Scheme of Teaching (Hrs/Week) and Credits				Scheme of Evaluation (Marks)					
			L	T	P	Cr	Theory			TW	PR/	Total
							CT	TA	ESE	1	VV	
1	ME 62001	Design Engineering-I	3	-	Ħ	3	20	20	60	-	(c#)	100
2.	ME 62002 To ME 62004	Program Elective III	3	74	-	3	20	20	60	-	-	100
3.	ME 62005 To ME 62007	Program Elective IV	3	-	-	3	20	20	60	-	-	100
4.	ME 62008	Lab 3: Design Engineering-I	u	=	4	2	3	3	(30)	25	25	50
		TOTAL	9	0	4	11	60	60	180	25	25	350

SEMESTER-IV

Sr. No.	Course Code	Subject	(1)	Te Hrs/V	neme ( aching Week) redits	g and	Scheme of Evaluation (Marks)					
			L	T	P	Cr	Theory			TW	PR/	Total
							CT	TA	ESE		vv	
1	ME 62009	Computer Aided Optimization	3	-	÷	3	20	20	60	-	~	100
2	ME 62010 To ME 62012	Program Elective V	3	-	-	3	20	20	60		-	100
1	ME 62013	Lab 4: Computer Aided Optimization	0	0	4	2	-	-	16	25	25	50
2	ME 62014	Mini Project	0	0	4	2	æ)	-		50	50	100
		Total	6	0	8	10	40	40	120	75	75	350
	7	Total Second Year	15	0	12	21	100	100	300	100	100	700



#### **SEMESTER-V**

Sr. No.	Course Code	Subject		Scheme of Teaching (Hrs/Week) and Credits				Scheme of Evaluation (Marks)						
			L	T	P	Cr	Theory			TW	PR/	Total		
							CT	TA	ESE		vv			
1		Open Elective*	3	0	0	3	20	20	60	-		100		
2	ME 72001	Dissertation I			20	10	t <del>à</del> t	-	-	50	50	100		
		Total	3	0	20	13	20	20	60	50	50	200		

#### **SEMESTER-VI**

Sr. No.	Course Code	Subject	(H	Teac Irs/We	me of thing eek) and dits			Scheme	e of Eva	luation	ı (Mark	cs)
			L	T	P	Cr	Theory			TW	PR/	Total
							CT	TA	ESE		vv	
1	ME 72002	Dissertation II	=	-	32	16	-	-	-	100	150	250
Total			0	0	32	16	0	0	0	100	150	250
		Total Third Year	3	0	52	29	20	20	60	150	200	450
		Grand Total	34	0	72	68	220	220	660	300	350	1750

#### Program Elective - I

ME 52002 Flexible Manufacturing System

ME 52003 Advance Operations Research

ME 52004 Modern Management System

#### Program Elective - II

ME 52007 Modern Engineering Materials

ME 52008 Engineering Experimental Techniques

ME 52009 Management Information System and Enterprise

Resource Planning

#### Program Elective - III

ME 62002 Machine Tool Design

ME 62003 Computer Aided Optimization

ME 62004 Engineering Economics

### Program Elective – IV

ME 62005 Materials and Logistics Management
ME 62006 Computer Integrated Manufacturing

ME 62007 Facilities Planning and Material Handling System

#### Program Elective - V

ME 62010 Production Management ME 62011 Reliability Engineering

ME 62012 Sustainability in Materials and Design

Approved in XIXth Academic Council, dated 27 | 07 | 2018

#### **Audit Courses**

SW 51001 English for Research Paper Writing

SW 51002 Disaster Management

SW 51003 Sanskrit for Technical Knowledge

SW 51004 Value Education SW 51005 Constitution of India

SW 51006 Pedagogy Study

SW 51007 Stress Management by Yoga

SW 51008 Personality Development through Life Enlightenment Skills

## Open Elective\* (NPTEL/ SWAYAM/ MOOCS etc.)

1. Principals of Casting Technology

2. Design for Quality, Manufacturing and Assembly

#### 3. Mechanics of Machining

#### 4. Robotics

5. Manufacturing of Composites

#### Rules for Open Elective:

- 1. The students shall appear to above open elective or available at NPTEL/ SWAYAM/ MOOCS etc. course and has to successfully complete in duration of semester.
- 2. After submission of authentic course certificates the credits of open elective (3 credits) will be transferred.
- 3. Those students who are interested to appear Swayam/ MOOCS/ NPTEL etc courses as open elective not mention in Mechanical Engineering Department syllabus has to seek sanction syllabus and credit from department in advance.
- 4. It is compulsory to appear online exam of Swayam/ MOOCS/ NPTEL under supervision of department otherwise performance of student will not be considered.

5. Students performance of this online examination will be considered for TA, ESE, CT.

Approved in XIX<sup>th</sup> Academic Approximate Approxima