

**SCHEME OF EXAMINATION
AND
COURSE OF STUDY**



**THREE-YEAR DIPLOMA
IN
MECHANICAL ENGINEERING for Working
Professionals
(w.e.f. 2023-24)**

Department of Mechanical Engineering

**FACULTY OF ENGINEERING & TECHNOLOGY GURUKULA KANGRI
(DEEMED TO BE UNIVERSITY), HARIDWAR**

Syllabus

Diploma in ME

(Semester-III)

S.NO.	COURSE CODE	COURSE OPTED	SUBJECT	Period per week			EVALUATION SCHEME				Credit	Subject TOTAL
							SESSIONAL EXAM.			EXA M. ESE		
				L	T	P	CT	TA	TOTAL			
THEORY SUBJECTS												
1	DMW-C301	ESC	Applied Mechanics	3	0	0	20	10	30	70	3	100
2	DMW - C302	ESC	Material Science	3	0	0	20	10	30	70	3	100
3	DMW-C303	ESC	Workshop Technology-I	3	0	0	20	10	30	70	3	100
4	DMW - C304	ESC	Thermodynamics	3	0	0	20	10	30	70	3	100
PRACTICAL / TRAINING / PROJECT												
5	DMW-C352	ESC	Material Science Lab	0	0	2	10	5	15	35	1	50
6	DMW - C353	ESC	Workshop Technology-I Lab	0	0	2	10	5	15	35	1	50
7	DMW-C354	ESC	Thermodynamics Lab	0	0	2	10	5	15	35	1	50
8	DMW - C355	ESC	Machine Drawing	0	0	2	10	5	15	35	1	50
TOTAL				12	0	8	120	60	180	420	16	600

Syllabus

Diploma in ME (WP)

(Semester IV)

S. N O.	COURS E CODE	COURS E OPTED	SUBJEC T	Period per week			EVALUATION SCHEME				Credit	Subjec t TOTA L
							SESSIONAL EXAM.			EXA M. ESE		
				L	T	P	CT	TA	TOTA L			
THEORY SUBJECTS												
1	DMW-C401	ESC	Measurement & Metrology	3	0	0	20	10	30	70	3	100
2	DMW-C402	ESC	Hydraulic Machine	3	0	0	20	10	30	70	3	100
3	DMW-C403	ESC	Fundamental of I.C.Engines and Automobile	3	0	0	20	10	30	70	3	100
4	DMW-C404	ESC	Strength of Materials	3	0	0	20	10	30	70	3	100
PRACTICAL / TRAINING / PROJECT												
5	DMW-C451	ESC	Measurement & Metrology Lab	0	0	2	10	5	15	35	1	50
6	DMW -C452	ESC	Hydraulic Machine Lab	0	0	2	10	5	15	35	1	50
7	DMW-C453	ESC	Fundamental of I.C.Engines Automobile Lab	0	0	2	10	5	15	35	1	50
8	DMW-C454	ESC	Fundamental of Computer Applications Lab	0	0	2	10	5	15	35	1	50
TOTAL				12	0	8	120	60	180	420	16	600

Syllabus

Diploma in ME

(Semester-V)

S.NO.	COURS E CODE	COURS E OPTE D	SUBJEC T	Period per week			EVALUATION SCHEME				Credit	Subjec t TOTA L
							SESSIONAL EXAM.			EXA M. ESE		
				L	T	P	CT	TA	TOTA L			
THEORY SUBJECTS												
1	DMW-C501	ESC	Dynamics of Machine	3	0	0	20	10	30	70	3	100
2	DMW-C502	ESC	CNC Machines and Automation	3	0	0	20	10	30	70	3	100
3	DMW -C503	ESC	Workshop Technology - II	3	0	0	20	10	30	70	3	100
4	DMW-C504	ESC	Industrial Engineering	3	0	0	20	10	30	70	3	100
PRACTICAL / TRAINING / PROJECT												
5	DMW - C551	ESC	Dynamics of Machine Lab	0	0	2	10	5	15	35	1	50
6	DMW- C552	ESC	CNC Machines and Automation Lab	0	0	2	10	5	15	35	1	50
7	DMW- C553	ESC	Workshop Technology – II Lab	0	0	2	10	5	15	35	1	50
8	DMW- C554	ESC	Minor Project	0	0	2	10	5	15	35	1	50
TOTAL				12	0	8	120	60	180	420	16	600

Diploma in ME (WP)
(Semester-VI)

S.NO.	COURS E CODE	COURS E OPTE D	SUBJEC T	Period per week			EVALUATION SCHEME				Credit	Subjec t TOTAL
							SESSIONAL EXAM.			EXA M. ESE		
				L	T	P	CT	TA	TOTAL			
THEORY SUBJECTS												
1	DMW-C601	ESC	CAD (Computer Aided Design)	3	0	0	20	10	30	70	3	100
2	DMW-C602	ESC	Refrigeration and Air Conditioning	3	0	0	20	10	30	70	3	100
3	DMW -C603	ESC	Prouction Management	3	0	0	20	10	30	70	3	100
4	DMW-C604	ESC	Maintenance Management	3	0	0	20	10	30	70	3	100
PRACTICAL / TRAINING / PROJECT												
5	DMW - C651	ESC	CAD (Computer Aided Design)Lab	0	0	2	10	5	15	35	1	50
6	DMW- C652	ESC	Refrigeration and Air Conditioning Lab	0	0	2	10	5	15	35	1	50
7	DMW- C653	ESC	Major Project	0	0	4	20	10	30	70	2	100
TOTAL				12	0	8	120	60	180	420	16	600

Course Code: DMW-C301

Course Name: Applied Mechanics

MM: 100	Sessional: 30
Time: 3 Hr.	ESE: 70
L T P	Credit : 3
3 0 0	

Prerequisites:	
Objectives:	
Course Coordinator	

NOTE:	Objective The subject Applied Mechanics deals with basic concepts of mechanics like laws of forces, moments, friction, centre of gravity, laws of motion and simple machines which are required by the students for further understanding of other
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UNIT	Module	Course Content	No. of Hours
UNIT-1	<i>Module-1</i>	Introduction & Laws of Forces Introduction: Concept of engineering mechanics definition of mechanics, statics, dynamics, application of engineering mechanics in practical fields. Definition of Applied Mechanics. Definition of basic and derived quantities. Basic units and derived units. Different systems of units (FPS, CGS, MKS & SI) and their conversion from one to another for density, velocity, acceleration, force, pressure, work, power. Concept of rigid body. Laws of Force: Definition of force, measurement of force in SI units, its representation, types of force: Point force/concentrated force & uniformly distributed force, effects of force, characteristics (elements) of a force. Lami's theorem (concept only).	6
UNIT-2	<i>Module-2</i>	Moment Concept of moment. Moment of a force and units of moment. Varignon's theorem (definition only). Principle of moment and its applications (Levers– simple and compound, steel yard, safety valve, reaction at support). Parallel forces (like	6