

Government College of Engineering, Karad

SCHEME OF INSTRUCTION & SYLLABI

Programme: Mechanical Engineering

Scheme of Instructions: Final Year B. Tech. in Mechanical Engineering

Semester – VII (w.e.f. 2026-27) (Mode-1-Academic)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Course Credits	Exam Scheme			
									MSE	ISE	ESE	Total
1	PCC	ME3701	Machine Design – II @	3	--	--	3	3	20	20	60	100
2	PCC	ME3702	Industrial Engineering	3	--	--	3	3	20	20	60	100
3	EL	RM3703	Research Methodology	3	--	--	3	3	20	20	60	100
4	PEC	ME37*4	Programme Elective - 03	2	--	--	2	2	20	20	60	100
5	PEC	ME37*5	Industry / Programme Elective - 04	2	--	--	2	2	20	20	60	100
6	MDM	##	Multi-disciplinary Minor - 05	2	--	--	2	2	20	20	60	100
7	PCC	ME3707	Machine Design – II Lab	--	--	2	1	1	--	25	--	25
8	VSEC	ME3708	Computer Integrated Manufacturing Lab	--	--	2	2	1	--	25	--	25
9	PEC	ME37*9	Industry / Programme Elective – 04 Lab	--	--	2	2	1	--	25	--	25
10	EL	ME3710	Major Project	--	--	8	8	4	--	75	50	125
Total				15	--	14	28	22	120	270	410	800

any course offered from Department/Institute level MDM bucket

@ Duration of ESE is 3 hours

L	Lecture
T	Tutorial
P	Practical

MSE	Mid Semester Examination
ISE	In Semester Evaluation
ESE	End Semester Examination (For Laboratory End Sem performance)

Course Category	Basic Science Courses (BSC)	Engineering Science Courses (ESC)	Programme Core Course (PCC)	Programme Elective Course (PEC)	Open Elective other than particular program (OE/MDM)	Vocational and Skill Enhancement Course (VSEC)	Humanities Social Science and Management (HSSM)	Experiential Learning (EL)	Co-curricular And Extracurricular Activities (CCA)
Credits	-	-	7	5	2	1	-	7	-
Cumulative Sum	18	16	56	12	20	9	12	9	2

PROGRESSIVE TOTAL CREDITS: 132+22 = 154

Note 1: Students must choose either Mode 1 or Mode 2 at the beginning of Semester VII.

Note 2: Mode-1 students are permitted to enroll in MOOC courses of Semester VIII during Semester VII with prior approval of the respective Head of Department. The results of these MOOC courses will be considered in Semester VIII.


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 Govt. College of Engg., Karad

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Programme: Mechanical Engineering

Scheme of Instructions: Final Year B. Tech. in Mechanical Engineering

Semester – VII (w.e.f. 2026-27) (Mode-2-Internship)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Course Credits	Exam Scheme			
									MSE	ISE	ESE	Total
1	PEC	ME3711	MOOC-I	--	--	--	--	3	--	--	100	100
2	PEC	ME3712	MOOC-II	--	--	--	--	3	--	--	100	100
3	EL	ME3713	Internship	--	--	--	--	12	--	250	250	500
4	MDM	##	Multi-disciplinary Minor-05	2	--	--	2	2	20	20	60	100
Total				02	--	--	02	20	20	270	510	800

any course offered from Department/Institute level MDM bucket

L	Lecture
T	Tutorial
P	Practical

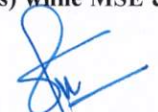
MSE	Mid Semester Examination
ISE	In Semester Evaluation
ESE	End Semester Examination (For Laboratory End Sem performance)

Course Category	Basic Science Courses (BSC)	Engineering Science Courses (ESC)	Programme Core Course (PCC)	Programme Elective Course (PEC)	Open Elective other than particular program (OE/MDM)	Vocational and Skill Enhancement Course (VSEC)	Humanities Social Science and Management (HSSM)	Experiential Learning (EL)	Co-curricular And Extracurricular Activities (CCA)
Credits	-	-	-	6	2	-	-	12	-
Cumulative Sum	18	16	49	13	20	08	12	14	02

PROGRESSIVE TOTAL CREDITS: 132+20 = 152

Note 1: Students must choose either Mode 1 or Mode 2 at the beginning of Semester VII.

Note 2: For MDM 5 Industry mode students, lectures will be conducted in online mode (with the flexibility of sharing recorded lectures) while MSE & ESE evaluation will be in offline mode.


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Programme: Mechanical Engineering

Scheme of Instructions: Final Year B. Tech. in Mechanical Engineering

Semester – VIII (w.e.f. 2026-27) (Mode-2-Academic)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Course Credits	Exam Scheme			
									MSE	ISE	ESE	Total
1	PCC	ME3801	Machine Design – II @	3	--	--	3	3	20	20	60	100
2	PCC	ME3802	Industrial Engineering	3	--	--	3	3	20	20	60	100
3	EL	RM3803	Research Methodology	3	--	--	3	3	20	20	60	100
4	PEC	ME38*4	Programme Elective - 03	2	--	--	2	2	20	20	60	100
5	PEC	ME38*5	Industry / Programme Elective - 04	2	--	--	2	2	20	20	60	100
6	MDM	##	Multi-disciplinary Minor - 06	2	--	--	2	2	20	20	60	100
7	PCC	ME3807	Machine Design – II Lab	--	--	2	1	1	--	25	--	25
8	VSEC	ME3808	Computer Integrated Manufacturing Lab	--	--	2	2	1	--	25	--	25
9	PEC	ME38*9	Industry / Programme Elective – 04 Lab	--	--	2	2	1	--	25	--	25
10	EL	ME3810	Major Project	--	--	8	8	4	--	75	50	125
Total				15	--	14	28	22	120	270	410	800

any course offered from Department/Institute level MDM bucket

L	Lecture
T	Tutorial
P	Practical

MSE	Mid Semester Examination
ISE	In Semester Evaluation
ESE	End Semester Examination (For Laboratory End Sem performance)

Course Category	Basic Science Courses (BSC)	Engineering Science Courses (ESC)	Programme Core Course (PCC)	Programme Elective Course (PEC)	Open Elective other than particular program (OE/MDM)	Vocational and Skill Enhancement Course (VSEC)	Humanities Social Science and Management (HSSM)	Experiential Learning (EL)	Co-curricular And Extracurricular Activities (CCA)
Credits	-	-	7	5	2	1	-	7	-
Cumulative Sum	18	16	56	18	22	9	12	21	2

PROGRESSIVE TOTAL CREDITS: 152+22 = 174


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Semester – VIII (w.e.f. 2026-27) (Mode-1-Internship)

Sr. No.	Course Category	Course Code	Course Title	L	T	P	Contact Hrs/Wk	Course Credits	Exam Scheme			
									MSE	ISE	ESE	Total
1	PEC	ME3811	MOOC-I	-	-	-	--	3	-		100	100
2	PEC	ME3812	MOOC-II	-	-	-	--	3	-		100	100
3	EL	ME3813	Internship	--	--	--	-	12	-	250	250	500
4	MDM	##	Multi-disciplinary Minor-06	2	--	--	2	2	20	20	60	100
Total				02	--	--	02	20	20	270	510	800

any course offered from Department/Institute level MDM bucket

L	Lecture
T	Tutorial
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MSE	Mid Semester Examination
ISE	In Semester Evaluation
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Course Category	Basic Science Courses (BSC)	Engineering Science Courses (ESC)	Programme Core Course (PCC)	Programme Elective Course (PEC)	Open Elective other than particular program (OE/MDM)	Vocational and Skill Enhancement Course (VSEC)	Humanities Social Science and Management (HSSM)	Experiential Learning (EL)	Co-curricular And Extracurricular Activities (CCA)
Credits	-	-	-	6	2	-	-	12	-
Cumulative Sum	18	16	56	18	22	9	12	21	2

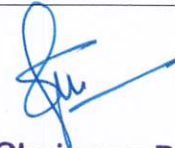
PROGRESSIVE TOTAL CREDITS: 154+20 = 174

Note: For MDM 6 Industry mode students, lectures will be conducted in online mode (with the flexibility of sharing recorded lectures) while MSE & ESE evaluation will be in offline mode.


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Basket of Programme Elective Courses (PEC)

Elective 01 (Sem. V)	Elective 02 (Sem. VI)	Elective 03 (Sem. VII)	Elective 04 (Sem. VII)	Elective 03 (Sem. VIII)	Elective 04 (Sem. VIII)
ME3514: Renewable Energy Engineering	ME3615: Operations Research	ME3714: Total Quality Management	ME3715: Finite Element Analysis	ME3814: Total Quality Management	ME3815: Finite Element Analysis
ME3524: Industrial Instrumentation	ME3625: Entrepreneurship Development	ME3724: Power Plant Engineering	ME3725: Industrial Fluid Power	ME3824: Power Plant Engineering	ME3825: Industrial Fluid Power
ME3534: Internal Combustion Engines	ME3635: Additive Manufacturing	ME3734: Non-Conventional Machining	ME3735: Automobile Engineering	ME3834: Non-Conventional Machining	ME3835: Automobile Engineering
ME3544: Turbomachinery	ME3645: Product Design and Development	ME3744: Supply Chain Management	ME3745: Refrigeration and Air Conditioning <i>(Industry Elective)</i>	ME3844: Supply Chain Management	ME3845: Refrigeration and Air Conditioning <i>(Industry Elective)</i>
		ME3754: Welding Technology	ME3755: Design of Turbomachinery	ME3854: Welding Technology	ME3855: Design of Turbomachinery
		ME3764: Turbo Machinery Auxillary Systems		ME3864: Turbo Machinery Auxillary Systems	



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Basket of respective Programme Elective Laboratory Courses (PEC-Lab)

Elective 01 Lab (Sem. V)	Elective 04 Lab (Sem. VII)	Elective 04 Lab (Sem. VIII)
ME3519: Renewable Energy Engineering Lab	ME3719: Finite Element Analysis Lab	ME3819: Finite Element Analysis Lab
ME3529: Industrial Instrumentation Lab	ME3729: Industrial Fluid Power Lab	ME3829: Industrial Fluid Power Lab
ME3539: Internal Combustion Engines Lab	ME3739: Automobile Engineering Lab	ME3839: Automobile Engineering Lab
ME3549: Turbo Machinery Lab	ME3749: Refrigeration and Air Conditioning Lab	ME3849: Refrigeration and Air Conditioning Lab
	ME3759: Design of Turbomachinery Lab	ME3859: Design of Turbomachinery Lab


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