

Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)



Credit System for

T.Y. B.Tech. (Mechanical Engineering)

Sem-V and VI

AY 2020-21



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Credit System for T.Y. B.Tech. (Mechanical Engineering) Sem-V AY 2020-21

Sr.No.	Category	Course Code	Course Name	L	T	P	Hrs	Credits	ISE-1	MSE*	ISE-2	ESE	
Professional Core (Theory)													
1	PC	4ME301	Applied Thermodynamics	3	0	0	3	3	10	30	10	50	
2	PC	4ME302	Heat Transfer	3	0	0	3	3	10	30	10	50	
3	PC	4ME303	Manufacturing Technology	3	0	0	3	3	10	30	10	50	
4	PC	4ME304	Metrology and Quality Control	2	0	0	2	2	10	30	10	50	
Professional Core (Lab)													
5	PC	4ME351	Applied Thermodynamics Lab	0	0	2	2	1	25	25	25	25	
6	PC	4ME352	Heat Transfer Lab	0	0	2	2	1	25	25	25	25	
7	PC	4ME353	Metrology and Quality Control & Manufacturing Technology Lab	0	0	2	2	1	25	25	25	25	
Professional Elective (Theory)													
8	HS	Refer list	Elective Foundational course in Humanities	3	0	0	3	3	10	30	10	50	
Open Elective													
9	OE	Refer list	Open Elective 1	3	0	0	3	3	10	30	10	50	
Value Added Professional Courses #													
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Value Added Life-Skill Courses #													
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Total				17	0	6	23	20					



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Sr.No.	Course Code	Course Name
Elective Foundational course in Humanities		
1	4HS301	Law and Engineering
2	4HS305	Foreign Language-German
3	4HS306	Human Relations at Work

Open Elective 1		
1	4OE315	Remote Sensing and GIS, GPS
2	4OE343	Electrical Machine Technology
3	4OE357	Electronic Systems
4	4OE371	Software Engineering and Database Essentials
5	4OE385	The Joy of Computing using Python

Notes:

* For Lab courses, there will be only internal continuous assessment. ESE is a separate head of passing for both theory and lab courses.

The Value Added Courses are Optional Courses. The mode of teaching (LTPI) is decided by the resource person.

The list of Value added courses will be updated from time to time. The courses may be on paid basis.

The credits earned from these courses will be shown on grade card. For SPI and CPI calculation, these courses will be excluded.

These courses will be offered as per availability of faculty

@ Minimum 2 mandatory life skill courses are to be completed for award of degree.

For further details refer to Academic and Examination rules and regulations.



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Sr.No.	Category	Course Code	Course Name	L	T	P	Hrs	Credits	ISE-1	MSE*	ISE-2	ESE	
Professional Core (Theory)													
1	PC	4ME321	Design of Machine Elements	3	0	0	3	3	10	30	10	50	
2	PC	4ME322	Automation in Manufacturing	3	0	0	3	3	10	30	10	50	
3	HS	4HS307	Fundamentals of Management and Economics for Engineers	4	0	0	4	4	10	30	10	50	
Professional Core (Lab)													
4	PC	4ME371	Design of Machine Elements-Case Studies	0	0	2	2	1	25	25	25	25	
5	PC	4ME372	Mechanical Workshop 2	0	0	2	2	1	25	25	25	25	
Professional Elective (Theory)													
6	PE	Refer list	Professional Elective 2	3	0	0	3	3	10	30	10	50	
7	PE	Refer list	Professional Elective 3	3	0	0	3	3	10	30	10	50	
Professional Elective (Lab)													
8	PE	Refer list	Professional Elective 2 and 3 (Combined) Lab	0	0	2	2	1	25	25	25	25	
Open Elective													
9	OE	Refer list	Open Elective 2	3	0	0	3	3	10	30	10	50	
Value Added Professional Courses #													
--													
Value Added Life-Skill Courses #													
--													
Total				19	0	6	25	22					



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Sr.No.	Course Code	Course Name
Professional Elective 2		
1	4ME331	Internal Combustion Engines
2	4ME332	Energy Conservation and Management
3	4ME333	Power Plant Engineering

Professional Elective 3		
1	4ME334	Mechatronics Systems
2	4ME335	Microprocessors in Automation
3	4ME336	Industrial Hydraulics and Pneumatics
4	4ME337	Operation Research

Professional Elective 2 and 3 (Combined) Lab		
1	4ME381	Professional Elective 2 and 3 (combined) lab

Open Elective 2		
1	4OE309	Theory of Structures
2	4OE350	Renewable Energy
3	4OE366	Biomedical Instrumentation
4	4OE378	Artificial Intelligence and Machine Learning
5	4OE395	Modern Application Development



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