Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli-416415



Credit System for

F. Y. M. Tech. (Design Engineering) for Working Professionals

Semester - I and II

AY 2026-27 onwards

Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Credit System for F. Y. M. Tech. (Design Engineering) for Working Professionals Sem-I AY 2026-27

Sr. No.	Category	Course Code	Course Name	L	T	P	I	Hrs.	Cr	MSE/LA1	ISE/LA2	ESE	Remark
Professional Core (Theory)													
1	PC	W7IC501	Research Methodology and IPR	3	0	0	0	3	3	30	20	50	
2	PC	W7DE501	Advanced Solid Mechanics	3	0	0	0	3	3	30	20	50	
3	PC	W7DE502	Advanced Machine Design	3	0	0	0	3	3	30	20	50	
4	PC	W7DE503	Computer Aided Design	3	0	0	0	3	3	30	20	50	
Professional Core (Lab)													
5	PC	W7DE554	Computational Programming Lab	0	0	2	0	2	1	30	30	40	
6	PC	W7DE552	Advanced Machine Design Lab	0	0	2	0	2	1	30	30	40	
7	PC	W7DE553	Computer Aided Design Lab	0	0	2	0	2	1	30	30	40	
Professional Elective (Theory)													
8	PE	Refer list	Professional Elective 1	3	0	0	0	3	3	30	20	50	
9	PE	Refer list	Professional Elective 2	3	0	0	0	3	3	30	20	50	
			Total	**18**	**0**	**6**	**0**	**24**	**21**				

Professional Elective Course List for F. Y. M. Tech. (Design Engineering) for Working Professionals Sem-I AY 2026-27

Sr. No.	Track	Course Code	Course Name
Professional Elective 1			
1	Design of Machines and Products	W7DE511	Design for Manufacturing and Assembly
2	Design of Machines and Products	W7DE512	Robotics
3	Mathematical Modeling	W7DE513	Mathematical Methods in Engineering
Professional Elective 2			
1	Design of Machines and Products	W7DE514	Process Equipment Design
2	Mathematical Modeling	W7DE515	Optimization Techniques in Design
3	Design of Machines and Products	W7DE516	Product Life Cycle Management (PLM)

Departmental Academic Coordinator 27/10

Head of Department

Dean Academics

Walchand College of Engineering, Sangli

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Credit System for F. Y. M. Tech. (Design Engineering) for Working Professionals Sem-II AY 2026-27

Sr. No.	Category	Course Code	Course Name	L	T	P	I	Hrs.	Cr	MSE/LA1	ISE/LA2	ESE	Remark
Professional Core (Theory)													
1	PC	W7DE521	Advanced Vibration and Acoustics	3	0	0	0	3	3	30	20	50	
2	PC	W7DE522	Finite Element Method	3	0	0	0	3	3	30	20	50	
3	PC	W7DE523	Advanced Engineering Materials	3	0	0	0	3	3	30	20	50	
Professional Core (Lab)													
3	PC	W7DE571	Advanced Vibration and Acoustics Lab	0	0	2	0	2	1	30	30	40	
4	PC	W7DE572	Finite Element Method Lab	0	0	2	0	2	1	30	30	40	
5	PR	W7DE545	Seminar	0	0	2	0	2	1	30	30	40	
Professional Elective (Theory)													
6	PE	Refer list	Professional Elective 3	3	0	0	0	3	3	30	20	50	
7	PE	Refer list	Professional Elective 4	3	0	0	0	3	3	30	20	50	
Open Elective													
8	OE	Refer list	Open Elective	3	0	0		3	3	30	20	50	
			Total	**18**	**0**	**6**	**0**	**24**	**21**				

Professional Elective Course List for F. Y. M. Tech. (Design Engineering) for Working Professionals Sem-II AY 2026-27

Sr.No.	Track	Course Code	Course Name
Professional Elective 3			
1	Stress Analysis	W7DE531	Fracture Mechanics
2	Design of Machines and Products	W7DE532	Tribology in Design
3	Stress Analysis	W7DE533	Experimental Stress Analysis
Professional Elective 4			
1	Vibration Analysis	W7DE534	Condition Monitoring of Machines
2	Design of Machines and Products	W7DE535	Analysis and Synthesis of Mechanisms
3	Mathematical Modeling	W7DE536	Reliability Engineering

Departmental Academic Coordinator 5/3/10

Head of Department

Dean Academics