

Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli-416415



Credit System for F. Y. M. Tech. Mechanical (Design Engineering) Semester-I and II

2023-24



Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Credit System for F. Y. M. Tech.Mechanical (Design Engineering) Sem-I AY 2023-24

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Remark
Professional Core (Theory)													
1	PC	7IC501	Research Methodology and IPR	3	0	0	0	3	3	30	20	50	
2	PC	7DE501	Advanced Solid Mechanics	3	0	0	0	3	3	30	20	50	
3	PC	7DE502	Advanced Machine Design	3	0	0	0	3	3	30	20	50	
4	PC	7DE503	Computer Aided Design	3	0	0	0	3	3	30	20	50	
Professional Core (Lab)													
5	PC	7DE551	Advanced Solid Mechanics Lab	0	0	2	0	2	1	30	30	40	
6	PC	7DE552	Advanced Machine Design Lab	0	0	2	0	2	1	30	30	40	
7	PC	7DE553	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				

Signature

Signature

HoD

Signature
 18/08/2023
 Dean Academics
 Walchand College of Engg.
 Vishrambag, Sangli - 415 415



Walchand College of Engineering, Sangli
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Professional Elective Course List for F. Y. M. Tech. Mechanical (Design Engineering) Sem-I AY 2023-24

Sr.No.	Track	Course Code	Course Name
Professional Elective 1			
1	Design of Machines and Products	7DE511	Design for Manufacturing and Assembly
2	Design of Machines and Products	7DE512	Robotics
3	Mathematical Modelling	7DE513	Mathematical Methods in Engineering
Professional Elective 2			
1	Design of Machines and Products	7DE514	Process Equipment Design
2	Mathematical Modelling	7DE515	Optimization Techniques in Design
3	Design of Machines and Products	7DE516	Product Life Cycle Management (PLM)

Notes:

For Theory courses: There shall be MSE, ISE and ESE. The ESE is a separate head of passing.

For Lab courses: There shall be continuous assessment (LA1, LA2, ESE). The ESE is a separate head of passing.

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

D. Waskar

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Credit System for F. Y. M. Tech. Mechanical (Design Engineering) Sem-II AY 2023-24

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Remark
Professional Core (Theory)													
1	PC	7DE521	Advanced Vibration and Acoustics	3	0	0	0	3	3	30	20	50	
2	PC	7DE522	Finite Element Method	3	0	0	0	3	3	30	20	50	
3	PC	7DE523	Advanced Engineering Materials	3	0	0	0	3	3	30	20	50	
Professional Core (Lab)													
4	PC	7DE571	Advanced Vibration and Acoustics Lab	0	0	2	0	2	1	30	30	40	
5	PC	7DE572	Finite Element Method Lab	0	0	2	0	2	1	30	30	40	
6	PR	7DE545	Seminar	0	0	2	0	2	1	30	30	40	
Professional Elective (Theory)													
7	PE	Refer list	Professional Elective 3	3	0	0	0	3	3	30	20	50	
8	PE	Refer list	Professional Elective 4	3	0	0	0	3	3	30	20	50	
Open Elective													
9	OE	Refer list	Open Elective	3	0	0	0	3	3	30	20	50	
Total				18	0	6	0	24	21				

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Professional Elective Course List for F. Y. M. Tech. Mechanical (Design Engineering) Sem-II AY 2023-24

Sr.No.	Track	Course Code	Course Name
Professional Elective 3			
1	Stress Analysis	7DE531	Fracture Mechanics
2	Design of Machines and Products	7DE532	Tribology in Design
3	Stress Analysis	7DE533	Experimental Stress Analysis
Professional Elective 4			
1	Vibration Analysis	7DE534	Condition Monitoring of Machines
2	Design of Machines and Products	7DE535	Analysis and Synthesis of Mechanisms
3	Mathematical Modelling	7DE536	Reliability Engineering

Open Elective Course List for F. Y. M. Tech. (Design Engineering) Sem-II AY 2023-24

Sr.No.	Offering Programme	Course Code	Course Name
1	Environmental Engg.	7OE501	Solid Waste Management
2	Structural Engg.	7OE502	Structural Health Monitoring
3	Design Engg.*	7OE503	Industrial Product Design
4	Heat Power Engg.	7OE504	Waste to Energy
5	Production Engg.	7OE505	Advanced Production systems
6	Power System Engg.	7OE506	Control Techniques for Electrical Drives
7	Control System Engg	7OE506	Control Techniques for Electrical Drives
8	Electronics Engg.	7OE508	Introduction to Embedded Systems
9	Computer Science & Engg.	7OE509	Machine Learning in Practice
10	Information Technology	7OE510	Machine Learning & Applications

Notes:

*Open Elective offered by Mech (Design Engineering) Programme is allowed for students of all other Programmes (Except of Design Engg., Heat Power Engg. and Production Engg. Programme)

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

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