

Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli. 416 415



**Credit System for
Final Year B.Tech. (Mechanical Engineering)
Sem-VII and VIII**

AY 2023-24

Walchand College of Engineering

(Government Aided Autonomous Institute)

Credit System for Final Year B.Tech. (Mechanical Engineering) Sem-VII AY 2023-24

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Ext
Professional Core (Theory)													
01	PC	5ME401	Mechanical Vibrations	3	0	0	0	3	3	30	20	50	
02	PC	5ME402	Refrigeration and Air Conditioning	3	0	0	0	3	3	30	20	50	
Professional Core (Lab)													
03	PC	5ME451	Mechanical Vibrations Lab	0	0	2	0	2	1	30	30	40	OE
04	PC	5ME452	Refrigeration and Air Conditioning Lab	0	0	2	0	2	1	30	30	40	POE
05	PC	5ME453	Techno-Socio Activity	0	0	0	1	1	1	30	30	40	
06	PR	5ME454	Project-I	0	0	6	0	6	3	30	30	40	OE
07	PR	5ME441	Mini-Project-5	0	0	2	0	2	1	30	30	40	
Professional Elective (Theory)													
08	PE	Refer List	Professional Elective-5	3	0	0	0	3	3	30	20	50	
Open Elective													
09	OE	Refer List	Open Elective-5	3	0	0	0	3	3	30	20	50	
Humanities													
10	HS	5ME455	Humanities-3: Project Management	0	0	0	1	1	1	15	15	20	
11	HS	5ME403	Humanities-4: Legal, IPR, Safety	1	0	0	0	1	1	15	10	25	
AICTE Mandatory Course													
12	MC	5IC401	Constitution of India	2	0	0	0	2	0	30	20	50	
Total				14	0	12	2	28	20				

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. The POE/OE indicates external component for ESE.

Minimum two AICTE mandatory courses need to be completed for award of degree.

The contact hours of guide for Final Year B.Tech project are 4 hrs for Sem VII and 8 hours/week for Sem VIII, for 9 students.

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

Prof. R. M. Chanmanwar
DAC/Secretary, BoS

Dr. S. U. Sapkal
Head, Mechanical Engg. Dept./
Chairman, BoS

Dr. Mrs. S. P. Sonavane
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Elective Course List for Final Year B.Tech. (Mechanical Engineering) Sem-VII AY 2023-24

Sr.No.	Track	Course Code	Course Name
Professional Elective-5			
01	Design Engg.	5ME411	Finite Element Method
02	Production Engg.	5ME412	Industrial Engineering
03	Design Engg.	5ME413	Solid Mechanics

Sr.No.	Offering Dept.	Course Code	Course Name
Open Elective-5			
01	Civil Engg.	5OE415	Management for Engineers
02	Applied Mechanics	5OE485	Structural Health Monitoring
03	Mechanical Engg.*	5OE429	Industrial Automation
04	Electrical Engg.	5OE443	Industrial Automation (NPTEL)
05	Electronics Engg.	5OE457	Medical Image Processing
06	CSE Engg.	5OE471	Cyber Security
07	IT Engg.	5OE485	Data Visualization & Interpretation

* Open Elective-5 offered by Mechanical Dept. is allowed for students of all other departments (Except Mechanical Dept.)



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Credit System for Final Year B.Tech. (Mechanical Engineering) Sem-VIII AY 2023-24

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Ext	
Professional Core (Theory)														
01	PC	5ME421	Automobile Engineering	3	0	0	0	3	3	30	20	50		
Professional Core (Lab)														
02	PR	5ME491	Project-II	0	0	6	0	6	3	30	30	40	POE	
Professional Elective (Theory)														
03	PE	Refer List	Professional Elective-6	3	0	0	0	3	3	30	20	50		
04	PE	Refer List	Professional Elective-7	3	0	0	0	3	3	30	20	50		
05	PE	Refer List	Professional Elective-8	3	0	0	0	3	3	30	20	50		
Total				12	0	12	0	24	18					

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. The POE/OE indicates external component for ESE.

The contact hours of guide for Final Year BTech project are 4 hrs for Sem VII and 8 hours/week for Sem VIII, for 9 students.

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



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Elective Course List for Final Year B.Tech. (Mechanical Engineering) Sem-VIII AY 2023-24

Sr.No.	Track	Course Code	Course Name
Professional Elective-6			
01	Thermal Engg.	5ME431	Computational Fluid Dynamics
02	Production Engg.	5ME432	Total Quality Management
03	Design Engg.	5ME433	Condition Monitoring of Machines and Signal Processing
Professional Elective-7			
01	Thermal Engg.	5ME434	Gas Dynamics and Jet Propulsion
02	Production Engg.	5ME435	Computer Integrated Manufacturing
03	Design Engg.	5ME436	Design of Transmission System
Professional Elective-8			
01	Thermal Engg.	5ME437	Combustion
02	Production Engg.	5ME438	Product Life Cycle Management
03	Design Engg.	5ME439	Mechanical System Design



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