

# Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli. 416 415



**Credit System for**

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

**Sem-V and VI**

**AY 2023-24**

# Walchand College of Engineering

(Government Aided Autonomous Institute)

## Credit System for T.Y. B.Tech. (Mechanical Engineering) Sem-V AY 2023-24

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Ext
<b>Professional Core (Theory)</b>													
01	PC	6ME301	Heat Transfer	3	0	0	0	3	3	30	20	50	
02	PC	6ME302	Applied Thermodynamics	3	0	0	0	3	3	30	20	50	
03	PC	6ME303	Engineering Metrology and Manufacturing Technology	3	0	0	0	3	3	30	20	50	
<b>Professional Core (Lab)</b>													
04	PC	6ME351	Heat Transfer Lab	0	0	2	0	2	1	30	30	40	POE
05	PC	6ME352	Applied Thermodynamics Lab	0	0	2	0	2	1	30	30	40	POE
06	PC	6ME353	Engineering Metrology and Manufacturing Technology Lab	0	0	2	0	2	1	30	30	40	POE
07	PC	6ME341	Mini-Project-1	0	0	2	0	2	1	30	30	40	
<b>Professional Elective (Theory)</b>													
08	PE	Refer List	Professional Elective-1	3	0	0	0	3	3	30	20	50	
<b>Open Elective</b>													
09	OE	Refer List	Open Elective-1	3	0	0	0	3	3	30	20	50	
<b>Humanities</b>													
10	HS	Refer List	Humanities-1	0	0	0	2	2	2	30	30	40	
11	HS	6HS301	Integrated/ Employability Skills-1	0	0	0	2	2	2	30	30	40	
<b>Total</b>				<b>15</b>	<b>0</b>	<b>8</b>	<b>4</b>	<b>27</b>	<b>23</b>				


**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.

**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

  
28/9/2023  
Dr. Mrs. S. P. Sonavane  
Dean Academics  
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# Walchand College of Engineering

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## Elective Course List for T.Y. B.Tech. (Mechanical Engineering) Sem-V AY 2023-24


Sr.No.	Track	Course Code	Course Name
<b>Professional Elective-1</b>			
01	Production Engg.	6ME311	Plastic Technology
02	Design Engg.	6ME312	Advanced Strength of Materials
03	Design Engg.	6ME313	Composite Materials
04	Production Engg.	6ME314	CAD/CAM

Sr.No.	Offering Dept.	Course Code	Course Name
<b>Open Elective-1</b>			
01	Civil Engg.	6OE301	Building Planning and Design
02	Civil Engg.	6OE302	Disaster Management
03	Applied Mechanics Dept	6OE315	Theory of structures
04	Mechanical Engg.*	6OE329	Non-Conventional Machining Processes
05	Electrical Engg.	6OE343	Electrical Machine Technology
06	Electronics Engg.	6OE357	Introduction to Electronic Systems
07	Electronics Engg.	6OE358	Signals and Systems
08	CSE Engg.	6OE371	Data Science
09	IT Engg.	6OE385	Cloud Computing System
10	IT Engg.	6OE386	Joy of Python Programming
11	IT Engg.	6OE387	Data Science for Engineers

Sr.No.	Course Code	Course Name
<b>Humanities-1</b>		
01	6HS303	German Language
02	6HS304	French Language
03	6HS305	Japanese Language
04	6HS306	Introduction to Entrepreneurship

\* Open Elective-1 offered by Mechanical Dept. is allowed for students of all other departments (Except Mechanical Dept.)

  
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## Credit System for T.Y. B.Tech. (Mechanical Engineering) Sem-VI AY 2023-24


Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Ext
<b>Professional Core (Theory)</b>													
01	PC	6ME321	Machine Design	3	1	0	0	4	4	30	20	50	
02	PC	6ME322	Mechatronics & Automation	3	0	0	0	3	3	30	20	50	
03	PC	6ME323	Computational Methods for Structures and Fluids	3	0	0	0	3	3	30	20	50	
<b>Professional Core (Lab)</b>													
04	PC	6ME371	Computational Methods for Structures and Fluids Lab	0	0	2	0	2	1	30	30	40	POE
05	PC	6ME342	Mini-Project-II	0	0	2	0	2	1	30	30	40	
<b>Professional Elective (Theory)</b>													
06	PE	Refer List	Professional Elective-2	2	0	0	0	2	2	30	20	50	
<b>Professional Elective (Lab)</b>													
07	PE	Refer List	Professional Elective-3 Lab	0	0	2	0	2	1	30	30	40	POE
08	PE	Refer List	Professional Elective-4 Lab	0	0	2	0	2	1	30	30	40	OE
<b>Open Elective</b>													
09	OE	Refer List	Open Elective-2	3	0	0	0	3	3	30	20	50	
<b>Humanities</b>													
10	HS	6ME380	Humanities-2: Project Management	0	0	0	2	2	2	30	30	40	
11	HS	6HS302	Integrated/ Employability Skills-2	0	0	0	2	2	2	30	30	40	
<b>Total</b>				<b>14</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>27</b>	<b>23</b>				


**Notes:**


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## Elective Course List for T.Y. B.Tech. (Mechanical Engineering) Sem-VI AY 2023-24


Sr.No.	Track	Course Code	Course Name
<b>Professional Elective-2</b>			
01	Thermal Engg.	6ME331	Energy Conservation and Management
02	Thermal Engg.	6ME332	Power Plant Engineering
03	Production Engg..	6ME333	Operations Research
04	Design Engg.	6ME334	Design and Optimization of Mechanical Elements
<b>Professional Elective-3 Lab</b>			
01	Production Engg.	6ME372	Mechatronics Systems Lab
02	Production Engg.	6ME373	Automation Lab
03	Design Engg.	6ME374	Industrial Hydraulics and Pneumatics Lab
04	Design Engg.	6ME375	Mechanical Measurement and Control Lab
<b>Professional Elective-4 Lab</b>			
01	Production Engg.	6ME376	Robotics Lab
02	Thermal Engg.	6ME377	I.C. Engine Lab
03	Production Engg.	6ME378	Industry 4.0 Lab
04	Production Engg.	6ME379	Advanced Manufacturing Technology Lab

Sr.No.	Offering Dept.	Course Code	Course Name
<b>Open Elective-2</b>			
01	Civil Engg.	6OE308	Ecology
02	Civil Engg.	6OE309	Solid Waste Management
03	Applied Mechanics Dept	6OE322	Maintenance and Rehabilitation of Structures
04	Mechanical Engg.*	6OE336	Basics of Automobile Engineering
05	Electrical Engg.	6OE350	Industrial Automation
06	Electronics Engg.	6OE364	Cyber Physical Systems
07	Electronics Engg.	6OE365	Biomedical Engineering
08	CSE	6OE378	Soft Computing
09	IT	6OE392	Web Development and Applications
10	IT	6OE393	Fundamentals of Machine Learning
11	IT	6OE394	Remote Sensing and Geographical Information Systems

\* Open Elective-2 offered by Mechanical Dept. is allowed for students of all other departments (Except Mechanical Dept.)

  
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