

Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli. 416415



**Credit System for
T.Y. B.Tech. (Electrical Engineering)
Sem-V and VI**

2022-23



Walchand College of Engineering

(Government Aided Autonomous Institute)

Credit System for T.Y. B.Tech. (Electrical Engineering) Sem-V AY 2022-23

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Ext	
Professional Core (Theory)														
1	PC	5EL301	Power System Analysis and Stability	3	0	0	0	3	3	30	20	50		
2	PC	5EL302	Control System Engineering	2	0	0	0	2	2	30	20	50		
Professional Core (Lab)														
3	PC	5EL351	Power System Analysis and Stability Lab	0	0	2	0	2	1	30	30	40	OE	
4	PC	5EL352	Control System Engineering Lab	0	0	2	0	2	1	30	30	40	POE	
5	PR	5EL345	Mini-Project-1	0	0	2	0	2	1	30	30	40		
6	PR	5EL346	Mini-Project-2	0	0	2	0	2	1	30	30	40		
7	HS	5HS301	Humanities-1: German Language	0	0	0	3	3	3	30	30	40		
Professional Elective (Theory)														
8	PE	Refer list	Elective-1	2	0	0	0	2	2	30	20	50		
9	PE	Refer list	Elective-2	2	0	0	0	2	2	30	20	50		
Professional Elective (Lab)														
10	PE	Refer list	Elective-2 Lab	0	0	2	0	2	1	30	30	40	OE	
Open Elective														
11	OE	Refer list	Open Elective-1	2	0	0	0	2	2	30	20	50		
12	OE	Refer list	Open Elective-2	3	0	0	0	3	3	30	20	50		
Total				14	0	10	3	27	22					

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 Y in the PoE indicates external component for ESE.

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



Walchand College of Engineering

(Government Aided Autonomous Institute)

Elective Course List for T.Y. B.Tech. (Electrical Engineering) Sem-V AY 2022-23

Sr.No.	Track	Course Code	Course Name
Elective-1			
1	Power System	5EL311	Illumination Engineering
2	Control System	5EL312	Digital Signal Processing
3	Power Electronics and Drives	5EL313	Electromagnetic Field
Elective-2			
1	Power System	5EL314	Electrical Machine Design
2	Control System	5EL315	Linear Algebra
3	Power Electronics and Drives	5EL316	Energy Storage Systems for EV
Elective-2 Lab			
1	Power System	5EL353	Electrical Machine Design Lab
2	Control System	5EL354	Linear Algebra Lab
3	Power Electronics and Drives	5EL355	Energy Storage Systems for EV Lab



Walchand College of Engineering

(Government Aided Autonomous Institute)

Open Elective Course List for T.Y. B.Tech. (Electrical Engineering) Sem-V AY 2022-23

Sr.No.	Offering Dept	Sem	Course Code	Course Name
Open Elective 1				
1	Civil	5	5OE301	Basic Civil Engineering
2	Mech	5	5OE330	Energy Engineering
3	CSE	5	5OE372	Data Science using Python
4	IT	5	5OE385	Joy of Python Programming
Open Elective 2				
1	Civil	5	5OE315	Application of Remote Sensing
2	Mech	5	5OE329	Non-conventional Machining Processes
3	CSE	5	5OE371	Software Engineering and Database Essentials
4	IT	5	5OE386	Cloud Computing System



Walchand College of Engineering

(Government Aided Autonomous Institute)

Credit System for T.Y. B.Tech. (Electrical Engineering) Sem-VI AY 2022-23

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Ext
Professional Core (Theory)													
1	PC	5EL321	Power System Protection	2	0	0	0	2	2	30	20	50	
2	PC	5EL322	Industrial Drives and Control	3	0	0	0	3	3	30	20	50	
3	PC	5EL323	Microcontroller and Applications	2	0	0	0	2	2	30	20	50	
Professional Core (Lab)													
4	PC	5EL371	Power System Protection Lab	0	0	2	0	2	1	30	30	40	POE
5	PR	5EL347	Mini-Project-3	0	0	2	0	2	1	30	30	40	
6	PR	5EL348	Mini-Project-4 Industrial Drives and Control Lab	0	0	2	0	2	1	30	30	40	POE
7	PC	5EL372	Microcontroller and Applications Lab	0	0	2	0	2	1	30	30	40	POE
8	HS	5HS302	Humanities-2: Human Relations at Work	0	0	0	3	3	3	30	30	40	
Professional Elective (Theory)													
9	PE	Refer list	Elective-3	2	0	0	0	2	2	30	20	50	
Open Elective													
10	OE	Refer list	Open Elective-3	2	0	0	0	2	2	30	20	50	
11	OE	Refer list	Open Elective-4	3	0	0	0	3	3	30	20	50	
Total				14	0	8	3	25	21				

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 Y in the PoE indicates external component for ESE.

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



Walchand College of Engineering

(Government Aided Autonomous Institute)

Elective Course List for T.Y. B.Tech. (Electrical Engineering) Sem-VI AY 2022-23

Sr.No.	Track	Course Code	Course Name
Elective-3			
1	Power System	5EL331	Artificial Neural Network
2	Control System	5EL332	Non Linear and Digital Control System
3	Power Electronics and Drives	5EL333	Introduction to Electric Vehicle



Walchand College of Engineering

(Government Aided Autonomous Institute)

Open Elective Course List for T.Y. B.Tech. (Electrical Engineering) Sem-VI AY 2022-23

Sr.No.	Offering Dept	Sem	Course Code	Course Name
Open Elective 3				
1	Mech	6	5OE336	3D Printing
2	Eln	6	5OE364	Cyber Physical System
3	CSE	6	5OE378	Fundamentals of Internet of Things
4	IT	6	5OE392	Web Development & Applications
Open Elective 4				
1	Mech	6	5OE337	Basics of Automobile Engineering
2	Eln	6	5OE365	Biomedical Engineering
3	CSE	6	5OE379	Artificial Intelligence and Machine Learning
4	IT	6	5OE393	Fundamentals Of Machine Learning