

# **Walchand College of Engineering**

(Government Aided Autonomous Institute)

**Vishrambag, Sangli. 416 415**



**Credit System for**

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

**Sem- V and VI**

**AY 2023-24**

# Walchand College of Engineering

(Government Aided Autonomous Institute)

## Credit System for T. Y. B. Tech. (Electrical 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	6EL301	Power System Analysis and Stability	3	0	0	0	3	3	30	20	50	
02	PC	6EL302	Control System Engineering	3	0	0	0	3	3	30	20	50	
03	PC	6EL303	Digital Signal Processing	3	0	0	0	3	3	30	20	50	
<b>Professional Core (Lab)</b>													
04	PC	6EL351	Power System Analysis and Stability Lab	0	0	2	0	2	1	30	30	40	POE
05	PC	6EL352	Control System Engineering Lab	0	0	2	0	2	1	30	30	40	OE
06	PC	6EL353	Digital Signal Processing Lab	0	0	2	0	2	1	30	30	40	POE
07	PC	6EL354	Presentation and Report Writing	0	0	0	1	1	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	
Total				15	0	6	5	26	23				

**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. N.V. Patel  
DAC/Secretary, BoS



Dr. D. S. More  
Head, Electrical Engg. Dept./  
Chairman, BoS



Dr. Mrs. S. P. Sonavane  
Dean Academics

**Dean Academics**  
**Walchand College of Engg.**  
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## Elective Course List for T. Y. B. Tech. (Electrical Engineering) Sem-V AY 2023-24

Sr.No.	Track	Course Code	Course Name
Professional Elective-1			
01	Power System	6EL311	Electromagnetic Field
02	Control System	6EL312	Linear Algebra
03	Power Electronics and Drives	6EL313	Energy Storage Systems for EV

Sr.No.	Offering Dept.	Course Code	Course Name
Open Elective-1			
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
Humanities-1		
01	6HS303	German Language
02	6HS304	French Language
03	6HS305	Japanese Language
04	6HS306	Introduction to Entrepreneurship

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



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## Credit System for T. Y. B. Tech. (Electrical 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	6EL321	Power System Protection	3	0	0	0	3	3	30	20	50	
02	PC	6EL322	Industrial Drives and Control	3	0	0	0	3	3	30	20	50	
03	PC	6EL323	Microcontroller and Applications	3	0	0	0	3	3	30	20	50	
04	PC	6EL324	Energy Audit and Management	3	0	0	0	3	3	30	20	50	
<b>Professional Core (Lab)</b>													
05	PC	6EL371	Power System Protection Lab	0	0	2	0	2	1	30	30	40	POE
06	PC	6EL372	Industrial Drives and Control Lab	0	0	2	0	2	1	30	30	40	OE
07	PC	6EL73	Microcontroller and Applications Lab	0	0	2	0	2	1	30	30	40	POE
08	PR	6EL341	Mini-Project	0	0	2	0	2	1	30	30	40	
<b>Professional Elective (Theory)</b>													
09	PE	Refer List	Professional Elective-2	3	0	0	0	3	3	30	20	50	
<b>Open Elective</b>													
10	OE	Refer List	Open Elective-2	3	0	0	0	3	3	30	20	50	
<b>Humanities</b>													
10	HS	6EL375	Humanities-2: Project Management (Universal Values, Ethics)	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	
Total				18	0	8	4	30	26				


### 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.

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

Sr.No.	Track	Course Code	Course Name
Professional Elective-2			
01	Power System	6EL331	ANN and Fuzzy Control
02	Control System	6EL332	Non Linear and Digital Control System
03	Power Electronics and Drives	6EL333	Introduction to Electric Vehicle

Sr.No.	Offering Dept.	Course Code	Course Name
Open Elective-2			
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 Electrical Dept. is allowed for students of all other departments (Except Electrical Dept.)



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