

Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli. 416415



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

2022-23



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Credit System for T.Y. B.Tech. (Civil 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	5CV301	Soil Mechanics	2	0	0	0	2	2	30	20	50	
2	PC	5CV302	Water Treatment Technology	2	0	0	0	2	2	30	20	50	
3	PC	5CV303	Design of Steel Structures	2	0	0	0	2	2	30	20	50	
4	PC	5CV304	Highway Engineering	2	0	0	0	2	2	30	20	50	
Professional Core (Lab)													
5	PC	5CV351	Water Quality Analysis Lab	0	0	2	0	2	1	30	30	40	POE
6	PC	5CV352	Soil Mechanics Lab	0	0	2	0	2	1	30	30	40	OE
7	PR	5CV345	Mini Project 2: Concrete Technology	0	0	2	0	2	1	30	30	40	OE
8	PR	5CV346	Mini Project 3: Repair and Rehabilitation of Structures	0	0	2	0	2	1	30	30	40	OE
9	HS	5HS301	Humanities-1: German Language	0	0	0	3	3	3	30	30	40	
Professional Elective (Theory)													
10	PE	Refer list	Elective 1	2	0	0	0	2	2	30	20	50	
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				15	0	8	3	26	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.



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

Sr.No.	Track	Course Code	Course Name
Elective 1			
1	Structural Engineering	5CV311	Structural Mechanics
2	Environmental Engineering	5CV312	Water Distribution System
3	Infrastructure Engineering	5CV313	Town and Country Planning
4	Transportation Engineering	5CV314	Remote Sensing and GIS



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

Sr.No.	Offering Dept	Sem	Course Code	Course Name
Open Elective 1				
1	Mech	5	5OE330	Energy Engineering
2	Elect	5	5OE343	Electrical Machine Technology
3	Eln	5	5OE356	Signals and Systems
4	CSE	5	5OE372	Data Science using Python
5	IT	5	5OE385	Joy of Python Programming
Open Elective 2				
1	Mech	5	5OE329	Non-conventional Machining Processes
2	Elect	5	5OE344	Industrial Instrumentation
3	Eln	5	5OE357	Introduction to Electronics system
4	CSE	5	5OE371	Software Engineering and Database Essentials
5	IT	5	5OE386	Cloud Computing System



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Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Ext
Professional Core (Theory)													
1	PC	5CV321	Foundation Engineering	2	0	0	0	2	2	30	20	50	
2	PC	5CV322	Sewerage and Sewage Treatment	2	0	0	0	2	2	30	20	50	
3	PC	5CV323	Design of Concrete Structures	2	1	0	0	3	3	30	20	50	
Professional Core (Lab)													
4	PC	5CV371	Highway Materials and Traffic Engineering Lab	0	0	2	0	2	1	30	30	40	OE
5	PR	5CV347	Mini Project 4:Civil Engineering Software Application	0	0	2	0	2	1	30	30	40	
6	PR	5CV348	Mini-Project 5: Steel Structures Design and Drawings	0	0	2	0	2	1	30	30	40	OE
7	HS	5HS302	Humanities 2: Human Relations at Work	0	0	0	3	3	3	30	30	40	
Professional Elective (Theory)													
8	PE	Refer list	Elective 2	2	0	0	0	2	2	30	20	50	
Professional Elective (Lab)													
9	PE	Refer list	Elective 3 Lab	0	0	2	0	2	1	30	30	40	
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				13	1	8	3	25	21				

Notes:

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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.

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

Sr.No.	Track	Course Code	Course Name
Elective 2			
1	Structural Engineering	5CV331	Advanced Concrete Technology
2	Structural Engineering	5CV332	Earthquake Engineering
3	Environmental Engineering	5CV333	Municipal Solid Waste Management
4	Environmental Engineering	5CV334	Hazardous Waste Management
5	Infrastructure Engineering	5CV335	Design of Hydraulic Structures
6	Infrastructure Engineering	5CV336	Advanced Surveying
Elective 3 Lab			
1	Structural Engineering	5CV372	Advanced Concrete Technology Lab
2	Structural Engineering	5CV373	Earthquake Engineering Lab
3	Environmental Engineering	5CV374	Municipal Solid Waste Management Lab
4	Environmental Engineering	5CV375	Hazardous Waste Management Lab
5	Infrastructure Engineering	5CV376	Design of Hydraulic Structures Lab
6	Infrastructure Engineering	5CV377	Advanced Surveying Lab
7	Infrastructure Engineering	5CV378	Foundation Engineering Lab
8	Environmental Engineering	5CV379	Sewerage and Sewage Treatment Lab



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Sr.No.	Offering Dept	Sem	Course Code	Course Name
Open Elective 3				
1	Mech	6	5OE336	3D Printing
2	Elect	6	5OE350	Renewable Energy
3	Eln	6	5OE364	Cyber Physical System
4	CSE	6	5OE378	Fundamentals of Internet of Things
5	IT	6	5OE392	Web Development & Applications
Open Elective 4				
1	Elect	6	5OE351	Energy Management
2	Eln	6	5OE365	Biomedical Engineering
3	CSE	6	5OE379	Artificial Intelligence and Machine Learning
4	IT	6	5OE393	Fundamentals Of Machine Learning