

Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli. 416415



***** Platinum Jubilee Year *****

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

2021-22



Walchand College of Engineering

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Credit System for T.Y. B.Tech. (Civil Engineering) Sem-V AY 2021-22

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	T1/LA1	T2/LA2	ESE	
Professional Core (Theory)													
1	PC	5CV301	Soil Mechanics	2	0	0	0	2	2	20	20	60	
2	PC	5CV302	Water Treatment Technology	2	0	0	0	2	2	20	20	60	
3	PC	5CV303	Design of Steel Structures	2	0	0	0	2	2	20	20	60	
4	PC	5CV304	Highway Engineering	2	0	0	0	2	2	20	20	60	
Professional Core (Lab)													
5	PC	5CV351	Water Quality Analysis Lab	0	0	2	0	2	1	30	30	40	
6	PC	5CV352	Soil Mechanics Lab	0	0	2	0	2	1	30	30	40	
7	PR	5CV345	MInI Project 2: Concrete Technology	0	0	2	0	2	1	30	30	40	
8	PR	5CV346	Mini Project 3	0	0	2	0	2	1	30	30	40	
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	20	20	60	
Open Elective													
11	OE	Refer list	Open Elective 1	2	0	0	0	2	2	20	20	60	
12	OE	Refer list	Open Elective 2	3	0	0	0	3	3	20	20	60	
Value Added Professional Courses #													
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Value Added Life-Skill Courses #													
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Total				15	0	8	3	26	22				



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Elective Course List for T.Y. B.Tech. (Civil Engineering) Sem-V AY 2021-22

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 2021-22

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

Notes:

For Lab courses: There shall be only internal continuous assessment (LA1, LA2, ESE). LA1 and LA2 together shall be Lab ISE. The ESE is a separate head of passing.
For Theory courses: There shall be two tests (T1 and T2) and one ESE. The ESE is a separate head of passing.

The Value Added Courses are Optional Courses. The mode of teaching (LTPI) is decided by the resource person.

The credits earned from these courses will be shown on grade card. For SGPA and CGPA calculation, these courses will be excluded.

The list of Value added courses will be updated from time to time. The courses may be on paid basis. These courses will be offered as per availability of faculty.

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



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Credit System for T.Y. B.Tech. (Civil Engineering) Sem-VI AY 2021-22

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	T1/LA1	T2/LA2	ESE
Professional Core (Theory)												
1	PC	5CV321	Foundation Engineering	2	0	0	0	2	2	20	20	60
2	PC	5CV322	Sewerage and Sewage Treatment	2	0	0	0	2	2	20	20	60
3	PC	5CV323	Design of Concrete Structures	2	1	0	0	3	3	20	20	60
Professional Core (Lab)												
4	PC	5CV371	Highway Materials and Traffic Engineering Lab	0	0	2	0	2	1	30	30	40
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
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	20	20	60
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	20	20	60
11	OE	Refer list	Open Elective 4	3	0	0	0	3	3	20	20	60
Value Added Professional Courses #												
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Value Added Life-Skill Courses #												
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Total				13	1	8	3	25	21			



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Elective Course List for T.Y. B.Tech. (Civil Engineering) Sem-VI AY 2021-22

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 Structure
6	Infrastructure Engineering	5CV336	Advanced Surveying
Elective 3 Lab			
1	Structural Engineering	5CV372	Advanced Concrete Technology
2	Structural Engineering	5CV373	Earthquake Engineering
3	Environmental Engineering	5CV374	Municipal Solid Waste Management
4	Environmental Engineering	5CV375	Hazardous Waste Management
5	Infrastructure Engineering	5CV376	Design of Hydraulic Structure
6	Infrastructure Engineering	5CV377	Advanced Surveying
7	Infrastructure Engineering	5CV378	Foundation Engineering Laboratory
8	Environmental Engineering	5CV379	Sewerage and Sewage Treatment Laboratory



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Open Elective Course List for T.Y. B.Tech. (Civil Engineering) Sem-VI AY 2021-22

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

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