

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		Soil Mechanics	2	0	0	0	2	2	20	20	60
2	PC		Water Treatment Technology	2	0	0	0	2	2	20	20	60
3	PC		Design of Steel Structures	2	0	0	0	2	2	20	20	60
4	PC		Highway Engineering	2	0	0	0	2	2	20	20	60
Professional Core (Lab)												
5	PC		Water Quality Analysis Lab	0	0	2	0	2	1	30	30	40
6	PR		Soil Mechanics Lab	0	0	2	0	2	1	30	30	40
7	PR		MInI Project 2: Concrete Technology	0	0	2	0	2	1	30	30	40
8	PR		Mini Project 3	0	0	2	0	2	1	30	30	40
9	HS		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		Structural Mechanics
2	Environmental Engineering		Water Distribution System
3	Infrastructure		Town and Country Planning
4	Transportation Engineering		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		Energy Engineering
2	Elect	5		Electrical Machine Technology
3	Eln	5		Signals and Systems
4	CSE	5		Data Science using Python
5	IT	5		Joy of Python Programming
Open Elective 2				
1	Mech	5		Non-conventional Machining Processes
2	Elect	5		Industrial Instrumentation
3	Eln	5		Introduction to Electronics system
4	CSE	5		Software Engineering and Database Essentials
5	IT	5		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		Foundation Engineering	2	0	0	0	2	2	20	20	60
2	PC		Sewage and Sewage Treatment	2	0	0	0	2	2	20	20	60
3	PC		Design of Concrete Structures	2	1	0	0	3	3	20	20	60
Professional Core (Lab)												
4	PC		Highway Materials and Traffic Engineering Lab	0	0	2	0	2	1	30	30	40
5	PR		Mini Project 4:Civil Engineering Software Application	0	0	2	0	2	1	30	30	40
6	PR		Mini-Project 5: Steel Structures Design and Drawings	0	0	2	0	2	1	30	30	40
7	HS		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		Advanced Concrete Technology
2	Structural Engineering		Earthquake Engineering
3	Environmental Engineering		Municipal Solid Waste Management
4	Environmental Engineering		Hazardous Waste Management
5	Infrastructure		Design of Hydraulic Structure
6	Infrastructure		Advanced Surveying
Elective 3 Lab			
1	Structural Engineering		Advanced Concrete Technology
2	Structural Engineering		Earthquake Engineering
3	Environmental Engineering		Municipal Solid Waste Management
4	Environmental Engineering		Hazardous Waste Management
5	Infrastructure		Design of Hydraulic Structure
6	Infrastructure		Advanced Surveying



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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		3D Printing
2	Elect	6		Renewable Energy
3	Eln	6		Cyber Physical System
4	CSE	6		Fundamentals of Internet of Things
5	IT	6		Web Development & Applications
Open Elective 4				
1	Elect	6		Energy Management
2	Eln	6		Biomedical Engineering
3	CSE	6		Artificial Intelligence and Machine Learning
4	IT	6		Fundamentals Of Machine Learning

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