Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli. 416 415

Credit System for

Final Year B.Tech. (Civil Engineering)

Sem-VII and VIII

AY 2023-24

Walchand College of Engineering
(Government Aided Autonomous Institut

Credit System for Final Year B.Tech. (Civil Engineering) Sem-VII AY 2023-24

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Ext
Professional Core (Theory)
01	PC	5CV401	Estimating and Costing	2	0	0	0	2	2	30	20	50	
02	PC	5CV402	Reinforced and Prestressed Concrete Design	2	1	0	0	3	3	30	20	50	
03	PC	5CV404	Construction Project Management	3	0	0	0	3	3	30	20	50	
Professional Core (Lab)
04	PC	5CV451	Construction Project Management Lab	0	0	2	0	2	1	30	30	40	
05	PC	5CV447	Mini-Project-4: Estimating and Costing	0	0	2	0	2	1	30	30	40	OE
06	PC	5CV448	Mini-Project-5: Concrete Structures Design and Drawings	0	0	2	0	2	1	30	30	40	OE
07	PR	5CV491	Project-I	0	0	6	0	6	3	30	30	40	OE
08	PC	5CV455	Techno-Socio Activity/Summer Internship	0	1	0	0	1	1	30	30	40	
Professional Elective (Theory)
09	PE	Refer List	Elective-4	3	0	0	0	3	3	30	20	50	
Open Elective
10	OE	Refer List	Open Elective-5	3	0	0	0	3	3	30	20	50	
Humanities
11	HS	5CV403	Humanities-4: Legal, IPR, Safety	1	0	0	0	1	1	15	10	25	
12	MC	5IC401	Constitution of India	2	0	0	0	2	0	30	20	50	
			Total	16	2	12	0	30	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 POE/OE indicates external component for ESE.

Minimum two AICTE mandatory courses need to be completed for award of degree.

The contact hours of guide for Final Year BTech project are 4 hrs for Sem VII and 8 hours/week for Sem VIII, for 9 students.

For further details, refer to Academic and Examination rules and reg ation

Dr. A. K. Mali
Department Academic Coordinator

Dr. G. R. Munavalli
Head, Department of Civil Engineering

Dr. Mrs. S. P. Sonavane
Dean Academics

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Elective Course List for Final Year B.Tech. (Civil Engineering) Sem-VII AY 2023-24

Sr.No.	Track	Course Code	Course Name
Professional Elective-4			
01	Structural Engineering	5CV411	Advanced Structural Analysis
02	Environmental Engineering	5CV412	Advances in Water and Wastewater Treatment
03	Environmental Engineering	5CV413	Air Pollution and Control
04	Infrastructure Engineering	5CV414	Maintenance and Rehabilitation of Structures
05	Transportation Engineering	5CV415	Bridge and Airport Engineering

Sr.No.	Offering Dept.	Course Code	Course Name
Open Elective-5			
01	Civil Engg.*	5OE415	Management for Engineers
02	Applied Mechanics *	5OE485	Structural Health Monitoring
03	Mechanical Engg.	5OE429	Industrial Automation
04	Electrical Engg.	5OE443	Industrial Automation (NPTEL)
05	Electronics Engg.	5OE457	Medical Image Processing
06	CSE Engg.	5OE471	Cyber Security
07	IT Engg.	5OE485	Data Visualization & Interpretation

* Open Elective-5 offered by Civil Dept. is allowed for students of all other departments (Except Civil Dept.)

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Credit System for Final Year B.Tech. (Civil Engineering) Sem-VIII AY 2023-24

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Ext
Professional Core (Theory)													
01	PC	5CV425	Engineering Economics and Valuation	2	0	0	0	2	2	30	20	50	
Professional Core (Lab)													
02	PR	5CV492	Project-II	0	0	12	0	12	6	30	30	40	OE
03	PC	5CV471	Structural Health Monitoring Lab	0	0	2	0	2	1	30	30	40	OE
Professional Elective (Theory)													
04	PE	Refer List	Elective-5	3	0	0	0	3	3	30	20	50	
05	PE	Refer List	Elective-6	3	0	0	0	3	3	30	20	50	
			Total	8	0	14	0	22	15				

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.

The contact hours of guide for Final Year BTech project are 4 hrs for Sem VII and 8 hours/week for Sem VIII, for 9 students.

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

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Elective Course List for Final Year B.Tech. (Civil Engineering) Sem-VIII AY 2023-24

Sr.No.	Track	Course Code	Course Name
Professional Elective5		
01	Structural Engineering	5CV431	Advanced Structural Design
02	Structural Engineering	5CV432	Structural Health Monitoring
03	Environmental Engineering	5CV433	Industrial Wastewater Treatment
04	Infrastructure Engineering	5CV434	Contracts Management
05	Transportation Engineering	5CV435	Intelligent Transportation systems
06	Infrastructure Engineering	5CV436	Sustainable and Energy Efficient Building Technologies
Professional Elective-6		
01	Structural Engineering	5CV437	Computer Applications in Structural Engineering
02	Structural Engineering	5CV438	Geosynthetics And Reinforced Soil Structures
03	Environmental Engineering	5CV439	Environmental Management Systems
04	Transportation Engineering	5CV440	Construction Equipment and Techniques
05	Transportation Engineering	5CV441	Tunnel and Harbour Engineering
06	Transportation Engineering	5CV442	Highway Construction and Pavement Design

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