

Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli. 416415



Proposed Credit System for F.Y. M. Tech. (Civil-Structural Engineering)

2023-24



Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Credit System for F.Y. M. Tech. Civil (Structural Engineering) Sem-I AY 2023-24

Sr. No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Remark	
Professional Core (Theory)														
1	PC	7IC501	Research Methodology and IPR	3	0	0	0	3	3	30	20	50		
2	PC	7ST501	Mechanics of Structures	3	0	0	0	3	3	30	20	50		
3	PC	7ST502	Theory of Elasticity and Plasticity	3	0	0	0	3	3	30	20	50		
4	PC	7ST503	Structural Dynamics and Earthquake Engineering	3	0	0	0	3	3	30	20	50		
Professional Core (Lab)														
5	PC	7ST551	Modern Materials Lab	0	0	2	0	2	1	30	30	40		
6	PC	7ST552	Dynamics of Structures Lab	0	0	2	0	2	1	30	30	40		
7	PC	7ST553	Computer Aided Design Lab	0	0	2	0	2	1	30	30	40		
Professional Elective (Theory)														
8	PE	Refer List	Professional Elective 1	3	0	0	0	3	3	30	20	50		
9	PE	Refer List	Professional Elective 2	3	0	0	0	3	3	30	20	50		
Total				18	0	6	0	24	21					

B. S. ...

[Signature]
HoD

[Signature]
21/8/2023
Dean Academics
Dean Academics
College of Engg.
Vishrambag, Sangli - 413 415



Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Professional Elective Course List for F.Y. M. Tech. Civil (Structural Engineering) Sem-I AY 2023-24

Sr.No.	Track	Course Code	Course Name
Professional Elective 1			
1	Advanced Design of Structures	7ST511	Advanced Design of Reinforced Concrete Structures
2	Advanced Structural Analysis and Computational Methods	7ST512	Analysis and Design of Bridges
Professional Elective 2			
1	Advanced Design of Structures	7ST513	Computer Aided Design
2	Advanced Structural Analysis and Computational Methods	7ST514	Numerical Methods in Structural Engineering

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.

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

HoD
21/8
Dean Academics
Dean Academics
Walchand College of Engg.
Vishrambag, Sangli - 416 415



Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Credit System for F.Y. M. Tech. Civil (Structural Engineering) Sem-II AY 2023-24

Sr. No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Remark	
Professional Core (Theory)														
1	PC	7ST521	Theory of Plates and Shells	3	0	0	0	3	3	30	20	50		
2	PC	7ST522	Finite Element Method	3	0	0	0	3	3	30	20	50		
3	PC	7ST523	Advanced Earthquake Engineering	3	0	0	0	3	3	30	20	50		
Professional Core (Lab)														
4	PC	7ST571	Structural Health Monitoring Lab	0	0	2	0	2	1	30	30	40		
5	PC	7ST572	Finite Element Lab	0	0	2	0	2	1	30	30	40		
6	PR	7ST545	Seminar	0	0	2	0	2	1	30	30	40		
Professional Elective (Theory)														
7	PE	Refer List	Professional Elective 3	3	0	0	0	3	3	30	20	50		
8	PE	Refer List	Professional Elective 4	3	0	0	0	3	3	30	20	50		
Open Elective														
9	OE	Refer List	Open Elective	3	0	0	0	3	3	30	20	50		
Total				18	0	6	0	24	21					

HoD
21/8/2023
Dean Academics
Walchand College of Engg.
Vishrambag, Sangli - 416 001



Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Professional Elective Course List for F.Y. M. Tech. (Structural Engineering) Sem-II AY 2023-24

Sr. No.	Track	Course Code	Course Name
Professional Elective 3			
1	Advanced Design of Structures	7ST531	Advanced Prestressed Concrete
2	Advanced Structural Analysis and Computational Methods	7ST532	Stability of Structures
3	Advanced Structural Analysis and Computational Methods	7ST533	Structural Health Monitoring and Smart Materials
Professional Elective 4			
1	Advanced Design of Structures	7ST534	Advanced Design of Steel Structures
2	Advanced Structural Analysis and Computational Methods	7ST535	Design Optimization

Open Elective Course List for F.Y. M. Tech. (Structural Engineering) Sem-II AY 2023-24

Sr.No.	Offering Programme	Course Code	Course Name
1	Environmental Engg.*	7OE501	Solid Waste Management
2	Structural Engg.*	7OE502	Structural Health Monitoring
3	Design Engg.	7OE503	Industrial Product Design
4	Heat Power Engg.	7OE504	Waste to Energy
5	Production Engg.	7OE505	Advanced Production systems
6	Power System Engg.	7OE506	Control Techniques for Electrical Drives
7	Control System Engg	7OE506	Control Techniques for Electrical Drives
8	Electronics Engg.	7OE508	Introduction to Embedded Systems
9	Computer Science & Engg.	7OE509	Machine Learning in Practice
10	Information Technology	7OE510	Machine Learning & Applications

Notes:

*Open Elective offered by Civil (Structural Engg) Programme is allowed for students of all other Programmes (Except Environmental and Structural Engg. Programme)

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.

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

HoD

Dean Academics
Walchand College of Engg.
Vishrambag, Sangli - 415 405