

Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli-416415



1947

**Credit System for
F. Y. M. Tech. (Data Science)**

Semester-I and II

Effective from AY 2024-25



Walchand College of Engineering
(Government Aided Autonomous Institute)

Credit System for F. Y. M. Tech. (Data Science) Sem-I Effective from Effective from AY 2024-25

Sr. No.	Category	Course Code	Course Name	L	T	P	Hrs.	Cr	MSE/LA1	ISE/LA2	ESE	Remark	
Professional Core (Theory)													
1	PC	IC501	Research Methodology and IPR	3	0	0	3	3	30	20	50		
2	PC	DS501	Mathematics for Data Science	3	0	0	3	3	30	20	50		
3	PC	DS502	Data Structures and Algorithms	3	0	0	3	3	30	20	50		
4	PC	DS503	Principles of Database Systems	2	0	0	2	2	30	20	50		
Professional Core (Lab)													
5	PC	DS551	Data Structures and Algorithms Lab	0	0	2	2	1	30	30	40		
6	PC	DS552	Python Programming Lab	0	0	2	2	1	30	30	40		
7	PC	DS553	Logical Programming for Data Science	1	0	2	2	2	30	30	40		
Professional Elective (Theory)													
8	PE	Refer list	Professional Elective 1	3	0	0	3	3	30	20	50		
9	PE	Refer list	Professional Elective 2	3	0	0	3	3	30	20	50		
Total				18	0	6	23	21					

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I/C Dean Academics



Walchand College of Engineering

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Credit System for F. Y. M. Tech. (Data Science) Sem-II AY 2024-25

Sr. No.	Category	Course Code	Course Name	L	T	P	Hrs.	Cr	MSE/LA1	ISE/LA2	ESE	Remark
Professional Core (Theory)												
1	PC	DS521	Data Mining and Warehousing	3	0	0	3	3	30	20	50	
2	PC	DS522	Data Handling and Visualization	2	0	0	2	2	30	20	50	
3	PC	DS523	Multidimensional Data Analysis	3	0	0	3	3	30	20	50	
Professional Core (Lab)												
4	PC	DS571	Data Mining and Warehousing Lab	0	0	2	2	1	30	30	40	
5	PC	DS572	Data Handling and Visualization Lab	0	0	2	2	1	30	30	40	
6	PC	DS573	Multidimensional Data Analysis Lab	0	0	2	2	1	30	30	40	
7	PC	DS574	Seminar	0	0	2	2	1	30	30	40	
Professional Elective (Theory)												
8	PE	Refer List	Professional Elective 3	3	0	0	3	3	30	20	50	
9	PE	Refer List	Professional Elective 4	3	0	0	3	3	30	20	50	
Open Elective												
10	OE	Refer List	Open Elective	3	0	0	3	3	30	20	50	
Total				17	0	8	25	21				


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Professional Elective Course List for F. Y. M. Tech. (Data Science) (Sem-I+ II) AY 2024-25

(All below courses are the elective courses for Sem I and II)

Students can choose any 4 courses from the following tracks/electives; at least one course from each level.

Sr. No.	Elective course name	Code	Level	T1-Mathematical Data Analysis	T2-Data Modelling	T3-Data Science Applications
1	Statistical Inference	IDS511	1	YES	NO	YES
2	Time Series Data Analysis	IDS512	1	YES	YES	YES
3	Multi-Criteria Decision Making	IDS513	1	YES	YES	YES
4	Data Modeling and Simulation	IDS514	1	YES	YES	YES
5	Data-driven Analytics	IDS515	2	YES	YES	NO
6	AIML in Data Science	IDS516	2	YES	YES	YES
7	Numerical Optimization in Data Science	IDS517	2	YES	YES	YES
8	Graph Theory in Data Science	IDS518	2	YES	YES	NO
9	Pattern Recognition	IDS519	3	YES	YES	YES
10	Financial Data Science	IDS520	3	NO	YES	YES
11	Social Data Analysis	IDS531	3	NO	YES	YES
12	Data Science in Businesses	IDS532	3	YES	YES	YES
13	Game theory	IDS533	3	YES	YES	YES
				11	12	11

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