Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli-416415

Credit System for
F. Y. M. Tech. (Thermal Engineering)

Semester - I and II

Effective from AY 2026-27 Onwards

Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Credit System for F. Y. M. Tech. (Thermal Engineering) Sem-I AY 2026-27

Sr. No.	Category	Course Code	Course Name	L	T	P	I	Hrs.	Cr	MSE/LA1	ISE/LA2	ESE	Remark
			Professional Core (Theory)										
1	PC	1IC501	Research Methodology and IPR	3	0	0	0	3	3	30	20	50	
2	PC	1TH501	Thermodynamics and Combustion	3	0	0	0	3	3	30	20	50	
3	PC	1TH502	Advanced Fluid Dynamics	3	0	0	0	3	3	30	20	50	
4	PC	1TH503	Advanced Heat Transfer	3	0	0	0	3	3	30	20	50	
			Professional Core (Lab)										
5	PC	1TH551	Thermodynamics and Combustion Lab	0	0	2	0	2	1	30	30	40	
6	PC	1TH552	Advanced Fluid Dynamics Lab	0	0	2	0	2	1	30	30	40	
7	PC	1TH553	Advanced Heat Transfer 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**				

Professional Elective Course List for F. Y. M. Tech. (Thermal Engineering) Sem-I AY 2026-27

Sr. No.	Track	Course Code	Course Name
	Professional Elective 1		
1	Study and Design of Thermal Systems	1TH511	Nuclear Engineering
2	Pumps and Turbines	1TH512	Design of Thermal Turbo Systems
3	Pumps and Turbines	1TH513	Gas Turbines
	Professional Elective 2		
1	Study and Design of Thermal Systems	1TH514	Design of Hydro Turbo Systems
2	Heating Ventilation and Air Conditioning	1TH515	Air Conditioning System Design
3	Energy Engineering	1TH516	Design of Solar and Wind System

Department Academic Coordinator **Head of Department** **Dean Academics**

Dean Academics
Walchand College of Engg.
Vishrambag, Sangli - 416 415

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Credit System for F. Y. M. Tech. (Thermal Engineering) Sem-II AY 2026-27

Sr. No.	Category	Course Code	Course Name	L	T	P	I	Hrs.	Cr	MSE/LA1	ISE/LA2	ESE	Remark
			Professional Core (Theory)										
1	PC	1TH521	Steam Engineering	3	0	0	0	3	3	30	20	50	
2	PC	1TH522	Computational Techniques in Fluid Flow and Heat Transfer	3	0	0	0	3	3	30	20	50	
3	PC	1TH523	Internal Combustion Engine Design	3	0	0	0	3	3	30	20	50	
			Professional Core (Lab)										
4	PC	1TH571	Steam Engineering Lab	0	0	2	0	2	1	30	30	40	
5	PC	1TH572	CFD Lab	0	0	2	0	2	1	30	30	40	
6	PC	1TH545	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**				

Professional Elective Course List for F. Y. M. Tech. (Thermal Engineering) Sem-II AY 2026-27

Sr.No.	Track	Course Code	Course Name
		Professional Elective 3	
1	Study and Design of Thermal Systems	1TH531	Design of Heat Exchanger
2	Refrigeration	1TH532	Industrial Refrigeration
3	Food Preservation	1TH533	Food preservation and cold chain management
		Professional Elective 4	
1	Refrigeration	1TH534	Cryogenics
2	Heating Ventilation and Air Conditioning	1TH535	Industrial Air Conditioning
3	Energy Engineering	1TH536	Energy Conservation and Management
4	Study and Design of Thermal Systems	1TH537	Design of Thermal System

Department Academic Coordinator

Head of Department

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