

Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli. 416415



**Credit System for
F.Y. M.Tech. (Production Engineering)**

Sem-I and II

2022-23



Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Credit System for F.Y. M.Tech. (Production Engineering) Sem-I AY 2022-23

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Remark	
Professional Core (Theory)														
1	PC	6PR501	Manufacturing Processes	3	0	0	0	3	3	30	20	50		
2	PC	6PR502	Advanced Joining Technology	3	0	0	0	3	3	30	20	50		
Professional Core (Lab)														
3	PR	6PR551	Research Methodology for Production Engineers	0	0	0	2	2	2	30	30	40		
4	PR	6PR545	Production Engineering Laboratory 1	0	0	4	0	4	2	30	30	40	OE	
Professional Elective (Theory)														
5	PE	Refer list	Professional Elective 1	3	0	0	0	3	3	30	20	50		
6	PE	Refer list	Professional Elective 2	3	0	0	0	3	3	30	20	50		
Professional Elective (Lab)														
7	PR	6PR546	Production Engineering Laboratory 2	0	0	4	0	4	2	30	30	40	OE	
Total				12	0	8	2	22	18					

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Walchand College of Engineering, Sangli

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Professional Elective Course List for F.Y. M.Tech. (Production Engineering) Sem-I AY 2022-23

Sr.No.	Track	Course Code	Course Name
Professional Elective 1			
1	Modeling and simulation	6PR511	Finite Element method in Manufacturing
2	Manufacturing Technology	6PR512	Industrial Hydraulics and Pneumatics
3	Industrial Engineering	6PR513	Quality Engineering for Manufacturing
4	Advanced Materials	6PR514	Manufacturing of non metallic products
Professional Elective 2			
1	Industrial Engineering	6PR515	Project Management
2	Manufacturing Technology	6PR516	Design for Manufacturing and Assembly
3	Manufacturing Technology	6PR517	Precision Engineering
4	Manufacturing Technology	6PR518	Costing and Cost control

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 Y in the PoE indicates external component for ESE. Minimum two AICTE mandatory courses need to be completed for award of degree.

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

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Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	MSE/LA1	ISE/LA2	ESE	Remark	
Professional Core (Theory)														
1	PC	6PR521	Advanced Manufacturing Processes	3	0	0	0	3	3	30	20	50		
2	PC	6PR522	Industrial Automation and Mechatronics	3	0	0	0	3	3	30	20	50		
Professional Core (Lab)														
3	PR	6PR571	Production Engineering Laboratory 3	0	0	4	0	4	2	30	30	40	OE	
4	PR	6PR591	Pre-dissertation work and seminar	0	0	4	0	4	2	30	30	40		
Professional Elective (Theory)														
5	PE	Refer list	Professional Elective 3	3	0	0	0	3	3	30	20	50		
6	PE	Refer list	Professional Elective 4	3	0	0	0	3	3	30	20	50		
Professional Elective (Lab)														
7	PR	6PR572	Production Engineering Laboratory 4	0	0	4	0	4	2	30	30	40	OE	
Open Elective														
8	OE	Refer list	Open Elective	3	0	0	0	3	3	30	20	50		
Total				15	0	12	0	27	21					

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Professional Elective Course List for F.Y. M.Tech. (Production Engineering) Sem-II AY 2022-23

Sr.No.	Track	Course Code	Course Name
Professional Elective 3			
1	Modeling and simulation	6PR531	CAD / CAM / CNC
2	Manufacturing Technology	6PR532	Additive Manufacturing,
3	Mechatronics and Automation	6PR533	Micro-Electro-Mechanical Systems
4	Modeling and simulation	6PR534	Modeling and simulation in manufacturing
Professional Elective 4			
1	Industrial Engineering	6PR535	Product Lifecycle Management,
2	Advanced Materials	6PR536	Processing of Plastics and Composites,
3	Manufacturing Technology	6PR537	Advanced Tool Design,
4	Manufacturing Technology	6PR538	Sustainable Manufacturing

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Open Elective Course List for F.Y. M.Tech. (Production Engineering) Sem-II AY 2022-23

Sr.No.	Offering Dept	Sem	Course Code	Course Name
Open Elective				
1	Civil_Env	2	6OE501	Solid Waste Management
2	Civil_Struct	2	6OE502	Structural Health Monitoring
3	Mech_Design	2	6OE503	Industrial Product Design
4	Mech_Heat	2	6OE504	Waste to Energy
5	Elect_Power	2	6OE506	Control Techniques for Electrical Drives
6	Elect_Control	2	6OE506	Control Techniques for Electrical Drives
7	Eln	2	6OE508	Introduction to Embedded Systems
8	CSE	2	6OE509	Machine Learning in Practice
9	IT	2	6OE510	Machine Learning & Applications

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