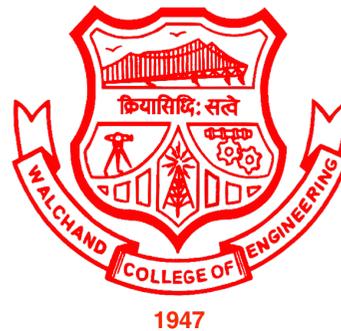# Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli. 416415

*** Platinum Jubilee Year ***

Credit System for
F.Y. M.Tech. (Production Engineering)
Sem-I and II

2021-22

Walchand College of Engineering, Sangli
(Government Aided Autonomous Institute)

Credit System for F.Y. M.Tech. (Production Engineering) Sem-I AY 2021-22

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	T1/LA1	T2/LA2	ESE
Professional Core (Theory)												
1	PC	5PR501	Manufacturing Processes	3	0	0	0	3	3	20	20	60
2	PC	5PR502	Advanced Joining Technology	3	0	0	0	3	3	20	20	60
Professional Core (Lab)												
3	PC	5PR560	Research Methodology	0	0	0	2	2	2	30	30	40
4	PR	5PR551	Activity Based Lab for Th course 1	0	0	2	0	2	1	30	30	40
5	PR	5PR552	Activity Based Lab for Th course 2	0	0	2	0	2	1	30	30	40
6	HS	5PR553	Presentation and Technical Report Writing	0	0	0	1	1	1	30	30	40
7	PC	5PR554	Professional Skills 1	0	0	0	1	1	1	30	30	40
Professional Elective (Theory)												
8	PE	Refer list	Elective 1	3	0	0	0	3	3	20	20	60
9	PE	Refer list	Elective 2	3	0	0	0	3	3	20	20	60
AICTE Mandatory Courses @												
10	MC	5IC501	Value Education	2	0	0	0	2	0	20	20	60
Value Added Professional Courses # (Listed separately)												
			--									
Value Added Life-Skill Courses # (Listed separately)												
			--									
			Total	**14**	**0**	**4**	**4**	**22**	**18**			

Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Elective Course List for F.Y. M.Tech. (Production Engineering) Sem-I AY 2021-22

Sr.No.	Track	Course Code	Course Name
Elective 1			
1	Industrial Engineering	5PR511	Quality Engineering for Manufacturing
2	Manufacturing Technology	5PR512	Finite Element method in Manufacturing
3	Manufacturing Technology	5PR513	Industrial Hydraulics and Pneumatics
Elective 2			
1	Industrial Engineering	5PR514	Precision Engineering,
2	Manufacturing Technology	5PR515	Design for Manufacturing and Assembly
3	Industrial Engineering	5PR516	Project Management,
4	Industrial Engineering	5PR517	Costing and Cost control

Notes:

For Lab courses: There shall be only internal continuous assessment (LA1, LA2, ESE). LA1 and LA2 together shall be Lab ISE. The ESE is a separate head of passing.

For Theory courses: There shall be two tests (T1 and T2) and one ESE. The ESE is a separate head of passing.

\# The Value Added Courses are Optional Courses. The mode of teaching (LTPI) is decided by the resource person.

   The credits earned from these courses will be shown on grade card. For SGPA and CGPA calculation, these courses will be excluded.

   The list of Value added courses will be updated from time to time. The courses may be on paid basis. These courses will be offered as per availability of faculty.

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

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

Walchand College of Engineering, Sangli
(Government Aided Autonomous Institute)

Credit System for F.Y. M.Tech. (Production Engineering) Sem-II AY 2021-22

Sr.No.	Category	Course Code	Course Name	L	T	P	I	Hrs	Cr	T1/LA1	T2/LA2	ESE
			Professional Core (Theory)									
1	PC	5PR521	Advanced Manufacturing Processes	3	0	0	0	3	3	20	20	60
2	PC	5PR522	Industrial Automation and Mechatronics	3	0	0	0	3	3	20	20	60
			Professional Core (Lab)									
3	PR	5PR571	Activity Based Lab for Th course 3	0	0	2	0	2	1	30	30	40
4	PR	5PR572	Activity Based Lab for Th course 4	0	0	2	0	2	1	30	30	40
5	PR	5PR573	Industrial Project	0	0	0	2	2	2	30	30	40
6	PC	5PR574	Professional Skills 2	0	0	0	1	1	1	30	30	40
			Professional Elective (Theory)									
7	PE	Refer list	Elective 3	2	0	0	0	2	2	20	20	60
8	PE	Refer list	Elective 4	2	0	0	0	2	2	20	20	60
			Professional Elective (Lab)									
9	PR	Refer list	Activity Based Elective Lab 1	0	0	2	0	2	1	30	30	40
			Open Elective									
10	OE	Refer list	Open Elective	2	0	0	0	2	2	20	20	60
			AICTE Mandatory Courses @									
11	MC	5IC502	Constitution of India	2	0	0	0	2	0	20	20	60
			Value Added Professional Courses # (Listed separately)									
			--									
			Value Added Life-Skill Courses # (Listed separately)									
			--									
			Total	14	0	6	3	23	18			

Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Elective Course List for F.Y. M.Tech. (Production Engineering) Sem-II AY 2021-22

Sr.No.	Track	Course Code	Course Name
Activity Based Elective Lab 1			
1	Modeling and simulation	5PR575	CAD / CAM / CNC Lab
2	Manufacturing Technology	5PR576	Additive Manufacturing Lab
3	Mechatronics and Automation	5PR577	Micro-Electro-Mechanical Systems Lab
4	Industrial Engineering	5PR578	Product Lifecycle Management Lab
5	Advanced Materials	5PR579	Processing of Plastics and Composites Lab
6	Manufacturing Technology	5PR580	Advanced Tool Design Lab
7	Industrial Engineering	5PR581	Optimization and Quantitative Techniques Lab
Elective 3			
1	Modeling and simulation	5PR523	CAD / CAM / CNC
2	Manufacturing Technology	5PR524	Additive Manufacturing,
3	Mechatronics and Automation	5PR525	Micro-Electro-Mechanical Systems
Elective 4			
1	Industrial Engineering	5PR526	Product Lifecycle Management,
2	Advanced Materials	5PR527	Processing of Plastics and Composites,
3	Manufacturing Technology	5PR528	Advanced Tool Design,
4	Industrial Engineering	5PR529	Optimization and Quantitative Techniques

Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Open Elective Course List for F.Y. M.Tech. (Production Engineering) Sem-II AY 2021-22

Sr.No.	Offering Dept	Sem	Course Code	Course Name
Open Elective 1				
1	Civil_Env	2	5OE101	Solid Waste Management
2	Civil_Struct	2	5OE102	Structural Health Monitoring
3	Mech_Heat	2	5OE104	Waste to Energy
4	Mech_Design	2	5OE105	Industrial Product Design
5	Elect_Power	2	5OE106	Control Techniques for Electrical Drives
6	Elect_Control	2	5OE106	Control Techniques for Electrical Drives
7	Eln	2	5OE108	Introduction to Embedded Systems
8	CSE	2	5OE109	Machine Learning in Practice
9	IT	2	5OE110	Machine Learning & Applications

Notes:

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   The credits earned from these courses will be shown on grade card. For SGPA and CGPA calculation, these courses will be excluded.

   The list of Value added courses will be updated from time to time. The courses may be on paid basis. These courses will be offered as per availability of faculty.

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