Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli. 416415

*** Platinum Jubilee Year ***

Credit System for
T.Y. B.Tech. (Mechanical Engineering)
Sem-V and VI

2021-22

Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Credit System for T.Y. B.Tech. (Mechanical Engineering) Sem-V 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		Heat Transfer	3	0	0	0	3	3	20	20	60
2	PC		Applied Thermodynamics	2	0	0	0	2	2	20	20	60
Professional Core (Lab)												
3	PC		Manufacturing Technology Lab	0	0	0	2	2	2	30	30	40
4	PC		Heat Transfer Lab	0	0	2	0	2	1	30	30	40
5	PC		Applied Thermodynamics Lab	0	0	2	0	2	1	30	30	40
6	PR		Mini-Project 1	0	0	2	0	2	1	30	30	40
7	PR		Mini-Project 2	0	0	2	0	2	1	30	30	40
8	HS		Humanities-1: German Language	0	0	0	3	3	3	30	30	40
Professional Elective (Theory)												
9	PE	Refer list	Elective 1	2	0	0	0	2	2	20	20	60
Professional Elective (Lab)												
10	PE	Refer list	Elective 2 Lab	0	0	2	0	2	1	30	30	40
Open Elective												
11	OE	Refer list	Open Elective 1	2	0	0	0	2	2	20	20	60
12	OE	Refer list	Open Elective 2	3	0	0	0	3	3	20	20	60
Value Added Professional Courses #												
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Value Added Life-Skill Courses #												
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			Total	**12**	**0**	**10**	**5**	**27**	**22**			

Walchand College of Engineering, Sangli

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Elective Course List for T.Y. B.Tech. (Mechanical Engineering) Sem-V AY 2021-22

Sr.No.	Track	Course Code	Course Name
	Elective 1		
1	Production Engineering		Plastic Technology
2	Design Engineering		Advanced Strength of Materials
3	Production Engineering		Composite Materials
	Elective 2 Lab		
1	Production Engineering		Mechatronics Systems Lab
2	Production Engineering		Microprocessors in Automation Lab
3	Design Engineering		Industrial Hydraulics and Pneumatics Lab
4	Design Engineering		Mechanical Measurement and Control Lab

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Open Elective Course List for T.Y. B.Tech. (Mechanical Engineering) Sem-V AY 2021-22

Sr.No.	Offering Dept	Sem	Course Code	Course Name
Open Elective 1				
1	Civil	5		Basic Civil Engineering
2	Elect	5		Electrical Machine Technology
3	Eln	5		Signals and Systems
4	CSE	5		Data Science using Python
5	IT	5		Joy of Python Programming
Open Elective 2				
1	Civil	5		Application of Remote Sensing
2	Elect	5		Industrial Instrumentation
3	Eln	5		Introduction to Electronics system
4	CSE	5		Software Engineering and Database Essentials
5	IT	5		Cloud Computing System

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.

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

Credit System for T.Y. B.Tech. (Mechanical Engineering) Sem-VI 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		Design of Machine Elements	2	0	0	0	2	2	20	20	60
2	PC		Automation in Manufacturing	2	0	0	0	2	2	20	20	60
3	PC		Engineering Metrology	1	0	0	0	1	1	20	20	60
Professional Core (Lab)												
4	PC		Design of Machine Elements Lab	0	0	2	0	2	1	30	30	40
5	PC		Automation in Manufacturing Lab	0	0	2	0	2	1	30	30	40
6	PC		Engineering Metrology Lab	0	0	2	0	2	1	30	30	40
7	PR		Mini-Project 3	0	0	2	0	2	1	30	30	40
8	PR		Mini-Project 4	0	0	2	0	2	1	30	30	40
9	HS		Humanities-2: Human Relations at Work	0	0	0	3	3	3	30	30	40
Professional Elective (Theory)												
10	PE	Refer list	Elective 3	2	0	0	0	2	2	20	20	60
Professional Elective (Lab)												
11	PE	Refer list	Elective 4 Lab	0	0	2	0	2	1	30	30	40
Open Elective												
12	OE	Refer list	Open Elective 3	2	0	0	0	2	2	20	20	60
13	OE	Refer list	Open Elective 4	3	0	0	0	3	3	20	20	60
Value Added Professional Courses #												
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Value Added Life-Skill Courses #												
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			Total	12	0	12	3	27	21			

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Elective Course List for T.Y. B.Tech. (Mechanical Engineering) Sem-VI AY 2021-22

Sr.No.	Track	Course Code	Course Name
Elective 3			
1	Thermal Engineering		Energy Conservation and Management
2	Thermal Engineering		Power Plant Engineering
3	Production Engineering		Operations Research
4	Design Engineering		Design and Optimization of Mechanical Elements
Elective 4 Lab			
1	Production Engineering		Robotics Lab
2	Thermal Engineering		Internal Combustion Engine Lab
3	Production Engineering		Industry 4.0 Lab

Open Elective Course List for T.Y. B.Tech. (Mechanical Engineering) Sem-VI AY 2021-22

Sr.No.	Offering Dept	Sem	Course Code	Course Name
Open Elective 3				
1	Civil	6		Physical Geology
2	Elect	6		Renewable Energy
3	Eln	6		Cyber Physical System
4	CSE	6		Fundamentals of Internet of Things
5	IT	6		Web Development & Applications
Open Elective 4				
1	Civil	6		Diaster Management
2	Elect	6		Energy Management
3	Eln	6		Biomedical Engineering
4	CSE	6		Artificial Intelligence and Machine Learning
5	IT	6		Fundamentals Of Machine Learning

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