Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Credit System for

Final Year B.Tech. (Mechanical Engineering)
Sem-VII and VIII

AY 2020-21

Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Credit System for Final Year B.Tech. (Mechanical Engineering) Sem-VII   AY 2020-21

Sr.No.	Category	Course Code	Course Name	L	T	P	Hrs	Credits	ISE-1	MSE*	ISE-2	ESE
Professional Core (Theory)													
1	PC	3ME401	Industrial Engineering	3	1	0	4	4	10	30	10	50
2	PC	3ME402	Refrigeration and Air Conditioning	3	0	0	3	3	10	30	10	50
Professional Core (Lab)													
3	PC	3ME451	Refrigeration and Air Conditioning Lab	0	0	2	2	1	25	25	25	25
4	PC	3ME491	Project I	0	0	4	4	2	25	25	25	25
Professional Elective (Theory)													
5	PE	Refer list	Professional Elective 5	3	0	0	3	3	10	30	10	50
6	PE	Refer list	Professional Elective 6	3	0	0	3	3	10	30	10	50
7	PE	Refer list	Professional Elective 7	3	1	0	4	4	10	30	10	50
Professional Elective (Lab)													
8	PE	Refer list	Professional Elective 5 Lab	0	0	2	2	1	25	25	25	25
9	PE	Refer list	Professional Elective 6 Lab	0	0	2	2	1	25	25	25	25
Open Elective													
10	OE	Refer list	Open Elective 3	3	0	0	3	3	10	30	10	50
Value Added Professional Courses #													
--													
Value Added Life-Skill Courses #													
--													
Total				**18**	**2**	**10**	**30**	**25**				

Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Course List for Final Year B.Tech. (Mechanical Engineering) Sem-VII   AY 2020-21

Sr.No.	Course Code	Course Name
**Professional Elective 5**		
1	3ME411	Dynamics of Machines
2	3ME412	Computational Fluid Dynamics
3	3ME413	Advanced Manufacturing Technology

Sr.No.	Course Code	Course Name
Professional Elective 6		
1	3ME414	Finite Element Method
2	3ME415	Cryogenics
3	3ME416	Computer Integrated Manufacturing and Robotics

Sr.No.	Course Code	Course Name
Professional Elective 7		
1	3ME417	Mechanical System Design
2	3ME418	Product Life Cycle Management
3	3ME419	Precision Engineering
4	3ME420	Thermal Systems

Sr.No.	Course Code	Course Name
Professional Elective 5 Lab		
1	3ME452	Dynamics of Machines Lab
2	3ME453	Computational Fluid Dynamics Lab
3	3ME454	Advanced Manufacturing Technology Lab

Sr.No.	Course Code	Course Name
Professional Elective 6 Lab		
1	3ME455	Finite Element Method Lab
2	3ME456	Cryogenics Lab
3	3ME457	Computer Integrated Manufacturing and Robotics Lab

Sr.No.	Course Code	Course Name
Open Elective 3		
1	1OE402	Finite Element Method
2	1OE416	Concrete Engineering and Technology

3	1OE417	Computational Methods and Optimization Techniques
4	1OE429	Automobile Engineering
5	1OE443	Industrial Automation
6	1OE457	Cyber Physical Systems
7	1OE471	Business Intelligence
8	1OE485	Data Visualization and Interpretation

Notes:

* For Lab courses, there will be only internal continuous assessment. ESE is a separate head of passing for both theory and lab courses.

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

   The list of Value added courses will be updated from time to time. The courses may be on paid basis.

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

   These courses will be offered as per availability of faculty

@ Minimum 2 mandatory life skill courses are to be completed for award of degree.

\$ Contact hours of each Final Year BTech project batch (of min 5 students) with the guide shall be 1 hour/week.

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

Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Credit System for Final Year B.Tech. (Mechanical Engineering) Sem-VIII   AY 2020-21

Sr.No.	Category	Course Code	Course Name	L	T	P	Hrs	Credits	ISE-1	MSE*	ISE-2	ESE
			Professional Core (Theory)									
1	HS	3IC401	Engineering Management and Ethics	4	0	0	4	4	10	30	10	50
			Professional Core (Lab)									
2	PC	3ME492	Project 2	0	0	20	20	10	25	25	25	25
3	PC	3ME493	Skill Based Learning	0	0	1	1	1	25	25	25	25
			Value Added Professional Courses #									
			--									
			Value Added Life-Skill Courses #									
			--									
			Total	4	0	21	25	15				

Notes:

* For Lab courses, there will be only internal continuous assessment. ESE is a separate head of passing for both theory and lab courses.

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

   The list of Value added courses will be updated from time to time. The courses may be on paid basis.

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

   These courses will be offered as per availability of faculty

@ Minimum 2 mandatory life skill courses are to be completed for award of degree.

$ Contact hours of each Final Year BTech project batch (of min 5 students) with the guide shall be 1 hour/week.

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