

Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)



Credit System for

T.Y. B.Tech. (Electrical Engineering)

Sem-V and VI

AY 2020-21



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Credit System for T.Y. B.Tech. (Electrical Engineering) Sem-V 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	4EL301	Power System Analysis and Stability	3	0	0	3	3	10	30	10	50	
2	PC	4EL302	Control System Engineering	3	0	0	3	3	10	30	10	50	
Professional Core (Lab)													
3	PC	4EL351	Power System Analysis and Stability Lab	0	0	2	2	1	25	25	25	25	
4	PC	4EL352	Control System Engineering Lab	0	0	2	2	1	25	25	25	25	
Professional Elective (Theory)													
5	HS	Refer list	Elective Foundational course in Humanities	3	0	0	3	3	10	30	10	50	
6	PE	Refer list	Professional Elective 1	3	0	0	3	3	10	30	10	50	
7	PE	Refer list	Professional Elective 2	3	0	0	3	3	10	30	10	50	
Professional Elective (Lab)													
8	PE	Refer list	Professional Elective 2 Lab	0	0	2	2	1	25	25	25	25	
Open Elective													
9	OE	Refer list	Open Elective 1	3	0	0	3	3	10	30	10	50	
Value Added Professional Courses #													
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Value Added Life-Skill Courses #													
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Total				18	0	6	24	21					



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Sr.No.	Course Code	Course Name
Elective Foundational course in Humanities		
1	4HS301	Law and Engineering
2	4HS305	Foreign Language-German
3	4HS306	Human Relations at Work
Professional Elective 1		
1	4EL311	Energy Audit and Management
2	4EL312	Digital Signal Processing
3	4EL313	Electromagnetic Field
Professional Elective 2		
1	4EL314	Microprocessor
2	4EL315	Electrical Machine Design
3	4EL316	Energy Storage Systems for EV
Professional Elective 2 Lab		
1	4EL364	Microprocessor Lab
2	4EL365	Electrical Machine Design Lab
3	4EL366	Energy Storage Systems for EV Lab
Open Elective 1		
1	4OE315	Remote Sensing & GIS, GPS
2	4OE330	Energy Engineering
3	4OE357	Electronic Systems
4	4OE371	Software Engineering and Database Essentials
5	4OE385	The Joy of Computing using Python



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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.

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	Hrs	Credits	ISE-1	MSE*	ISE-2	ESE	
Professional Core (Theory)													
1	HS	4HS308	Fundamentals of Management for Engineers	3	0	0	3	3	10	30	10	50	
2	PC	4EL321	Power System Protection	3	0	0	3	3	10	30	10	50	
3	PC	4EL322	Industrial Drives and Control	3	0	0	3	3	10	30	10	50	
4	PC	4EL323	Microcontroller and Applications	3	0	0	3	3	10	30	10	50	
Professional Core (Lab)													
5	PC	4EL371	Power System Protection Lab	0	0	2	2	1	25	25	25	25	
6	PC	4EL372	Industrial Drives and Control Lab	0	0	2	2	1	25	25	25	25	
7	PC	4EL373	Microcontroller and Applications Lab	0	0	2	2	1	25	25	25	25	
8	PC	4EL341	Mini Project	0	0	2	2	1	25	25	25	25	
Professional Elective (Theory)													
9	PE	Refer list	Professional Elective 3	3	0	0	3	3	10	30	10	50	
Open Elective													
10	OE	Refer list	Open Elective 2	3	0	0	3	3	10	30	10	50	
Value Added Professional Courses #													
--													
Value Added Life-Skill Courses #													
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Total				18	0	8	26	22					



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Sr.No.	Course Code	Course Name
Professional Elective 3		
1	4EL331	Artificial Neural Network
2	4EL332	Non Linear and Digital Control System
3	4EL333	Introduction to Electric Vehicle

Open Elective 2		
1	4OE309	Theory of Structures
2	4OE337	Joining Technology
3	4OE338	Mechanical Power Transmission
4	4OE366	Biomedical Instrumentation
5	4OE378	Artificial Intelligence and Machine Learning
6	4OE395	Modern Application Development

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