

Walchand College of Engineering

(Government Aided Autonomous Institute)

Vishrambag, Sangli. 416415



***** Platinum Jubilee Year *****

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

2021-22



Walchand College of Engineering, Sangli

(Government Aided Autonomous Institute)

Credit System for F.Y. M.Tech. (Environmental 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	5EV501	Physico-Chemical Methods for Water and Wastewater Treatment	3	0	0	0	3	3	20	20	60
2	PC	5EV502	Municipal Solid Waste Management	3	0	0	0	3	3	20	20	60
Professional Core (Lab)												
3	PC	5EV560	Research Methodology	0	0	0	2	2	2	30	30	40
4	PR	5EV551	Activity Based Lab for PCMWWT	0	0	2	0	2	1	30	30	40
5	PR	5EV552	Activity Based Lab for MSWM	0	0	2	0	2	1	30	30	40
6	HS	5EV553	Presentation and Technical Report Writing	0	0	0	1	1	1	30	30	40
7	PC	5EV554	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)												
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Value Added Life-Skill Courses # (Listed separately)												
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Total				14	0	4	4	22	18			



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

Sr.No.	Track	Course Code	Course Name
Elective 1			
1	Water and Wastewater	5EV511	Hydraulics of Transport Systems in Environmental Engineering
2	Pollution Studies	5EV512	Geo-Environmental Engineering
Elective 2			
1	Water and Wastewater	5EV513	Water Quality Modeling
2	Environmental Management	5EV514	Computational Methods and Optimization Techniques

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.



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Credit System for F.Y. M.Tech. (Environmental 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	5EV521	Biological Methods for Wastewater Treatment	3	0	0	0	3	3	20	20	60
2	PC	5EV522	Air Pollution and Control	3	0	0	0	3	3	20	20	60
Professional Core (Lab)												
3	PR	5EV571	Activity Based Lab BMWT	0	0	2	0	2	1	30	30	40
4	PR	5EV572	Activity Based Lab APC	0	0	2	0	2	1	30	30	40
5	PR	5EV573	Industrial Project	0	0	0	2	2	2	30	30	40
6	PC	5EV574	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	0	2	2	2	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)												
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Value Added Life-Skill Courses # (Listed separately)												
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Total				14	0	4	5	23	19			



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

Sr.No.	Track	Course Code	Course Name
Activity Based Elective Lab 1			
1	Water and Wastewater	5EV575	Environmental Chemistry Lab
2	Pollution Studies	5EV576	Hazardous Waste Management Lab
Elective 3			
1	Water and Wastewater	5EV523	Environmental Chemistry and Microbiology
2	Pollution Studies	5EV524	Hazardous Waste Management
Elective 4			
1	Environmental Management	5EV525	Environmental Management Systems
2	Environmental Management	5EV526	Energy And Buildings



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

Sr.No.	Offering Dept	Sem	Course Code	Course Name
Open Elective 1				
1	Civil_Struct	2	5OE102	Structural Health Monitoring
2	Mech_Prod	2	5OE103	Advanced Production systems
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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