

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examination – 2018-19
M.Tech Environmental Engineering (CEE)
Choice Based Credit System (CBCS)

I SEMESTER

Sl. No	Course	Course Code	CourseTitle	Teaching Hours /Week		Examination			Credits	
				Theory	Practical/ Field work/ Assignment	Duration in hours	CIE Marks	SEE Marks		Total Marks
1	PCC	18CEE11	ADVANCED COMPUTATIONAL METHODS & OPTIMIZATION	04	--	03	40	60	100	4
2	PCC	18CEE12	Advanced Water Treatment Tech.	04	--	03	40	60	100	4
3	PCC	18CEE13	Applied Env. Chem & Microbiology	04	--	03	40	60	100	4
4	PCC	18CEE14	Solid Waste Management	04	--	03	40	60	100	4
5	PCC	18CEE15	Occupational Safety and Health (OSHA)	04	--	03	40	60	100	4
6	PCC	18CEEL16	Environmental Engineering Lab-I	-	04	03	40	60	100	2
7	PCC	18RMI17	Research Methodology and IPR	02	--	03	40	60	100	2
TOTAL				22	04	21	280	420	700	24

Note: PCC: Professional core

Internship: All the students shall have to undergo mandatory internship of 6 weeks during the vacation of I and II semesters and /or II and III semesters. A University examination will be conducted during III semester and prescribed credit shall be included in the III semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared as failed and have to complete during subsequent University examination after satisfy the internship requirements.

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II SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination				Credits
				Theory	Practical/ Field work/ Assignment	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PCC	18CEE21	Advanced Wastewater Treatment	04	--	03	40	60	100	4
2	PCC	18CEE22	Atmospheric Air Pollution & Control	04	--	03	40	60	100	4
3	PCC	18CEE23	Industrial Waste water Treatment	04	--	03	40	60	100	4
4	PEC	18CEE24X	Professional elective 1	04	--	03	40	60	100	4
5	PEC	18CEE25X	Professional elective 2	04	--	03	40	60	100	4
6	PCC	18CEEL26	Environmental Engg. Lab-II	--	04	03	40	60	100	2
7	PCC	18CEE27	Technical Seminar	--	02	--	100	--	100	2
TOTAL				20	06	18	340	360	700	24

Note: PCC: Professional core, PEC: Professional Elective

Professional Elective 1		Professional Elective 2	
Course Code under 18CEE23X	Course title	Course Code under 18CEE24X	Course title
18CEE241	Environmental Geotechnology	18CEE251	WRE & Applied Hydraulics
18CEE242	Risk assesment and hazardous waste management	18CEE252	Ecology
18CEE243	Environmental Planning & Management	18CEE253	Renewable Energy and Alternatives Fuels

Note:

1. Technical Seminar: CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide in any and a senior faculty of the department. Participation in seminar by all postgraduate students of the same and other semesters of the programme shall be mandatory. The CIE marks awarded for Technical Seminar, shall be based on the evaluation of Seminar Report, Presentation skill and Question and Answer session in the ratio 50:25:25.

2. Internship: All the students shall have to undergo mandatory internship of 6 weeks during the vacation of I and II semesters and /or II and III semesters. A University examination will be conducted during III semester and prescribed credit shall be included in the III semester. Internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take-up/complete the internship shall be declared as failed and have to complete during subsequent University examination after satisfy the internship requirements.

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III SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination				Credits
				Theory	Practical/ Field work/ Assignment	Duration in hours	CIE Marks	SEE Marks	Total Marks	
1	PCC	18CEE31	Environmental Impact Assessment	04	--	03	40	60	100	4
2	PEC	18CEE32X	Professional elective3	04	--	03	40	60	100	4
3	PEC	18CEE33X	Professional elective4	04	--	03	40	60	100	4
4	Proj	18CEE34	Evaluation of Project phase -1	--	02	--	100	--	100	2
5	INT	18CEEI35	Internship	(Completed during the intervening vacation of I and II semesters and /or II and III semesters.)		03	40	60	100	6
TOTAL				12	02	12	260	240	500	20

Note: PCC: Professional core, PEC: Professional Elective, Proj: Project, INT: Internship

Professional Elective 3		Professional Elective 4	
Course Code under 18CEE32X	Course title	Course Code under 18CEE33X	Course title
18CEE321	Climate Change and Globalization	18CEE331	Remote Sensing & GIS
18CEE322	Natural resources conservation and management	18CEE332	Transport processes & Modelling of Aquatic System
18CEE323	Non-Point Source of Pollution and Management	18CEE333	Operation and maintenance of Environmental Facility

Note:

1. Project Phase-1: Students in consultation with the guide/co-guide if any, shall pursue literature survey and complete the preliminary requirements of selected Project work. Each student shall prepare relevant introductory project document, and present a seminar. CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide and a senior faculty of the department. The CIE marks awarded for project work phase -1, shall be based on the evaluation of Project Report, Project Presentation skill and Question and Answer session in the ratio 50:25:25.

SEE (University examination) shall be as per the University norms.

2. Internship: Those, who have not pursued /completed the internship shall be declared as failed and have to complete during subsequent University examinations after satisfy the internship requirements.

Internship SEE (University examination) shall be as per the University norms.

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IV SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination			Credits	
				Theory	Practical/ Field work/ Assignment	Duration in hours	CIE Marks	SEE Marks Viva voce		Total Marks
1	Proj	18CEE41	Project work phase -2	--	04	03	40	60	100	20
TOTAL				--	04	03	40	60	100	20

Note: Proj: Project.

Note:

1. Project Phase-2:

CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide, if any and a Senior faculty of the department. The CIE marks awarded for project work phase -2, shall be based on the evaluation of Project Report subjected to plagiarism check, Project Presentation skill and Question and Answer session in the ratio 50:25:25.

SEE shall be at the end of IV semester. Project work evaluation and Viva-Voce examination (SEE), after satisfying the plagiarism check, shall be as per the University norms.