JSS MAHAVIDYAPEETHA

JSS SCIENCE AND TECHNOLOGY UNIVERSITY

Scheme of Teaching and Examination 2024-25

Outcome Based Education (OBE) and Choice Based Credit System (CBCS)

(Effective from the academic year 2024-25)

SCHEME OF TEACHING AND ASSESSMENT FOR B.E

Semester III

Sl. No.	Course Code	Course Title	Category Code	Teaching Department	QP Setting Dept.	Teaching Hours per Week				Credits	Marks			Exam Duration in hours
						L	T	P	Total		CIE	SEE	Total	
1	24MATDIP310	Foundations of Engineering Mathematics-I	BSC	MA	MA	3	-	-	3	-	-	60	60	03
	24MA311/ 24MA312/ 24MA313	Engineering Mathematics III **24MA311-** CV, MECH, IP, ENV, CTM, BT & PST **24MA312-** ECE, EEE & E&I **24MA313-** CSE and ISE	BSC	MA	MA	3	-	-	3	3	40	60	100	03
2	24EV310	Environmental Chemistry	PCC	EV	EV	3	-	2	5	4	40	60	100	03
3	24EV320	Environmental Fluid Mechanics – I	PCC	EV	EV	4	-	-	4	4	40	60	100	03
4	24EV330	Environmental Microbiology and Ecology	PCC	EV	EV	4	-	-	4	4	40	60	100	03
5	24EV340	Elements of Environmental Engineering	PCC	EV	EV	3	-	-	3	3	40	60	100	03
6	24EV350	Construction Engineering Materials	PCC	EV	EV	3	-	-	3	3	40	60	100	03
7	24EV36L	Environmental Microbiology Laboratory	PCCL	EV	EV	-	-	3	3	1.5	40	60	100	03
8	24HU312	**Cycle 2:** Environmental Studies	HSMC	EV	EV	2	-	-	2	2	20	30	50	02
		NSS/NCC/SDA	SDA							-	-	-	-	-
Total										**24.5**	**300**	**450/ 510***	**750/ 810***	

*For lateral entry students

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SCHEME OF TEACHING AND ASSESSMENT FOR B.E

Semester IV

Sl. No.	Course Code	Course Title	Category Code	Teaching Department	QP Setting Dept.	Teaching Hours per Week				Credits	Marks			Exam Duration in hours
						L	T	P	Total		CIE	SEE	Total	
1	24MATDIP410	Foundations of Engineering Mathematics-II	BSC	MA	MA	3	-	-	3	-	-	60	60	03
	24MA411/ 24MA412/ 24MA413/ 24MA414	**24MA411- Engineering Mathematics IV:** CV, CTM, ENV, MECH, IP & PST **24MA412- Engineering Mathematics IV:** ECE, EEE & E&I **24MA413- Linear Algebra:** CSE and ISE **24MA414- Biostatistics:** BT	BSC	MA	MA	3	-	-	3	3	40	60	100	03
2	24EV410	Environmental Fluid Mechanics-II	PCC	EV	EV	3	-	2	5	4	40	60	100	03
3	24EV420	Hydrology and Water Resource Engineering	PCC	EV	EV	3	1	-	4	4	40	60	100	03
4	24EV430	Survey Engineering	PCC	EV	EV	4	-	-	4	4	40	60	100	03
5	24EV440	Geology and Geotechnical Engineering	PCC	EV	EV	3	-	-	3	3	40	60	100	03
6	24EV45xOE	Open Elective – I	OEC	EV	EV	3	-	-	3	3	40	60	100	03
7	24EV46L	Survey Practices for Environmental Engineering Applications	PCCL	EV	EV	-	-	3	3	1.5	40	60	100	03
9	24HU411	**Cycle 2:** Universal Human Values (UHV) – II	HSMC	EV	HU					2	20	30	50	02
		NSS/NCC/SDA	SDA							-	-	-	-	-
Total										**24.5**	**300**	**450/ 510***	**750/ 810***	

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SCHEME OF TEACHING AND ASSESSMENT FOR B.E

Semester V

Sl. No.	Course Code	Course Title	Category Code	Teaching Department	QP Setting Dept.	Teaching Hours per Week				Credits	Marks			Exam Duration in hours
						L	T	P	TOTAL		CIE	SEE	Total	
1	24EV510	Atmospheric Environmental Engineering	PCC	EV	EV	3	-	2	5	4	40	60	100	03
2	24EV520	Remote Sensing and GIS in Environmental Engineering	PCC	EV	EV	3	-	-	3	3	40	60	100	03
3	24EV530	Water Treatment and SupplyEngineering	PCC	EV	EV	3	-	-	3	3	40	60	100	03
4	24 EV540	Municipal and Biomedical Waste Management	PCC	EV	EV	3	-	-	3	3	40	60	100	03
5	24EV55x	Professional Elective-I	PEC	EV	EV	3	-	-	3	3	40	60	100	03
6	24EV56x	Professional Elective-II	PEC	EV	EV	3	-	-	3	3	40	60	100	03
7	24EV57xOE	Open Elective-II	OEC	EV	EV	3	-	-	3	3	40	60	100	03
8	24EV58L	Water Analysis Laboratory	PCCL	EV	EV	-	-	3	3	1.5	40	60	100	03
9	24HU510	**Cycle 2:** Constitution of India and Professional Ethics	HSMC	HU	HU					-	40	-	40	-
		NSS/NCC/SDA	SDA							-	-	-	-	-
Total										**23.5**	**360**	**480**	**840**	

Specialization	Circular Economy	Treatment Technologies	Advocacy and Compliance & Regulations	Environmental Management Systems
PE – I	24EV551 - Life Cycle Analysis and Environmental Risk Assessment	24EV552 – Environmental Biotechnology	24EV553 - Natural Resources Conservation and Management	24EV554 - Hazardous Waste Technology and Management
PE – II	24EV561 - Alternate Building Materials	24EV562 - Environmental Initiatives for Smart Cities	24EV563 - Environmental Law and Legal Systems	24EV564 - Environmental Hygiene and Sanitation

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SCHEME OF TEACHING AND ASSESSMENT FOR B.E

Semester VI

Sl. No.	Course code	Course title	Category Code	Teaching Department	QP Setting Dept.	Teaching Hours per Week				Credits	Marks			SEE Duration in hours
						L	T	P	TOTAL		CIE	SEE	Total	
1	24EV610	Wastewater Treatment Engineering	PCC	EV	EV	3	-	2	5	4	40	60	100	03
2	24EV620	Estimation and Costing	PCC	EV	EV	3	-	-	3	3	40	60	100	03
3	24EV630	Environmental Impact Assessment	PCC	EV	EV	3	-	-	3	3	40	60	100	03
4	24EV640	Transport of Environmental Pollutants and Modelling	PCC	EV	EV	3	-	-	3	3	40	60	100	03
5	24EV65x	Professional Elective-III	PEC	EV	EV	3	-	-	3	3	40	60	100	03
6	24EV66x	Professional Elective-IV	PEC	EV	EV	3	-	-	3	3	40	60	100	03
7	24EV67xOE	Open Elective-III	OEC	EV	EV	3	-	-	3	3	40	60	100	03
8	24EV68L	Design and Drawing of Environmental Systems	PCCL	EV	EV	-	-	3	3	1.5	40	60	100	03
		NSS/NCC/SDA	SDA							-	-	-	-	-
Total										**23.5**	**320**	**480**	**800**	

Specialization	Circular Economy	Treatment Technologies	Advocacy and Compliance & Regulations	Environmental Management Systems
PE – III	24EV651 - Environmental Systems Optimization	24EV652 - Environmental Nanotechnology	24EV653 - Environmental Justice and Pollution Control	24EV654 - Disaster Management
PE – IV	24EV661 - Global Warming and Climate Change	24EV662 - Advanced Wastewater Treatment Technologies	24EV663 - Environmental Economics	24EV664 - Occupational Safety and Health

Semester VII

Sl. No.	Course code	Course title	Category Code	Teaching Department	QP Setting Dept.	Teaching Hours per Week				Credits	Marks			SEE Duration in hours
						L	T/ SDA	P	TOTAL		CIE	SEE	Total	
1	24EV710	Management Practices in Environmental Engineering	HSMC	EV	EV	3	-	-	3	3	40	60	100	03
2	24EV72x	Professional Elective-V	PEC	EV	EV	3	-	-	3	3	40	60	100	03
3	24EV73x	Professional Elective-VI	PEC	EV	EV	3	-	-	3	3	40	60	100	03
4	24EV74P	Industrial Training/Internship	PWC	EV	-	-	-	-	-	2	40	-	40	-
5	24EV75P	Project Work Phase - I	PWC	EV	-	-	-	-	-	2	40	-	40	-
Total										**13**	**200**	**180**	**380**	

Specialization	Circular Economy	Treatment Technologies	Advocacy and Compliance & Regulations	Environmental Management Systems	
PE – V	24EV721 - Reclamation of Wastewater	24EV722 - Industrial Wastewater Treatment Technologies	24EV723 - Environmental Sustainability and Social Governance	24EV724 - Non-point Sources Pollution and Management	24EV72S – SWAYAM/NPTEL Course
PE – VI	24EV731 - Energy and Environment	24EV732 – Instrumentation and Automation in Environmental Engineering	24EV733 - Environmental Forensics	24EV734 - Environmental Health and Safety in Industries	24EV73S – SWAYAM/NPTEL Course

Note: A student can get exemption from professional elective course(s) (upto 2), either in 7th or 8th semesters if he/she opts to consider duly completed SWAYAM/NPTEL course(s). To qualify as a 3-credit course, the SWAYAM/NPTEL course must be of atleast 12 weeks long (one course of 12 weeks, two courses of 8 weeks and 4 weeks, or three courses of 4, 4, and 4 weeks or any other combination). Enrolling in the SWAYAM/NPTEL course is mandatory. However, opting for exemption from professional elective course is at the discretion of the student.

Semester VIII

Sl. No.	Subject Code	Course title	Category Code	Teaching Department	QP Setting Dept.	Teaching Hours per Week				Credits	Marks			SEE Duration in hours
						L	T	P	TOTAL		CIE	SEE	Total	
1	24EV81x	Professional Elective-VII	PEC	EV	EV	3	-	-	3	3	40	60	100	03
2	24EV82P	Project work Phase - II	PWC	EV	-	-	-	-	-	10	40	60	100	03
Total										**13**	**80**	**120**	**200**	

Specialization	Circular Economy	Sustainable Treatment Technologies / Process	Advocacy Compliance & Regulations	Environmental Management Systems	
PE- VII	24EV811 - Green Technology	24EV812 - Application of Statistics in Environmental Engineering	24EV813 - Corporate Social Responsibility Compliance	24EV814 - Operation, Maintenance and Management of Environmental Facilities	24EV81S – SWAYAM/ NPTEL Course