

COURSE STRUCTURE
For
M. Tech. (ENVIRONMENTAL ENGINEERING AND
MANAGEMENT), R19

SCHOOL OF RENEWABLE ENERGY AND ENVIRONMENT
INSTITUTE OF SCIENCE AND TECHNOLOGY



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY
KAKINADA

KAKINADA - 533 003, Andhra Pradesh, India

**Jawaharlal Nehru Technological University Kakinada:
Kakinada - 533003**

**Institute of Science and Technology
School of Renewable Energy and Environment
M. Tech. (Environmental Engineering and Management), R19**

COURSE STRUCTURE

I Year - M. Tech. I Semester

S. No	Course No	Course name	P.Os	category	L	T	P	Credits	Marks
1		Advanced Numerical Methods and Applied Statistics			3	0	0	3	100
2		Unit Operations and Processes in Water and Wastewater Treatment			3	0	0	3	100
3		Elective –I a) Industrial Water and Wastewater Management b) Environmental Hydrology and Hydraulics c) Remote Sensing and GIS Applications in Environmental Engineering			3	0	0	3	100
4		Elective –II a) Environmental Chemistry and Microbiology b) Urban Strom water Management c) Environmental Legislations and Management Systems			3	0	0	3	100
5		Research Methodology and IPR			2	0	0	2	100
6		Environmental Quality Monitoring Laboratory - I			0	0	4	2	100
7		Environmental Engineering and Microbiology Laboratory – II			0	0	4	2	100
8		Audit Course-1			2	0	0	0	100
Total					16	0	8	18	800

Audit course 1:

- The student shall register himself /herself at the beginning of 1st semester for any one of NPTEL / SWYAM/MOOC course offered by National institutes.**
- The student shall attend the examination conducted by the respective organization and produce the evaluation certificate before the project review committee for further evaluation and award of marks.**

I Year - M. Tech. II Semester

S. No.	Course No	Course Name	P.Os	category	L	T	P	Credits	Marks
1		Air and Noise Pollution Control			3	0	0	3	100
2		Solid and Hazardous Waste Management			3	0	0	3	100
3		Elective III a) Environmental Impact Assessment b) Green Technologies c) Environmental System Analysis			3	0	0	3	100
4		Elective IV a) Disaster Management b) Occupational and Environmental Health c) Air Quality Modelling and Management			3	0	0	3	100
5		Software Applications in Environmental Engineering Laboratory – III			0	0	4	2	100
6		Environmental process design and drawing (laboratory –IV)			0	0	4	2	100
7		Mini Project with Seminar			0	0	4	2	100
8		Audit Course-2			2	0	0	0	100
Total					14	0	12	18	800

Audit course 2:

1. The student shall register himself /herself at the beginning of 2nd semester for any one of NPTEL / SWYAM/MOOC course offered by National institutes.
2. The student shall attend the examination conducted by the respective organization and produce the evaluation certificate before the project review committee for further evaluation and award of marks.

II Year - M. Tech. III Semester

S. No.	Course No	Course Name	P.Os	Category	L	T	P	Credits	Marks
1		Program Elective – 5 a)Life cycle analysis b)Bio remediation c)Climate change and global environmental issues			3	0	0	3	100
2		Open Elective			3	0	0	3	100
3		Dissertation Phase - I (to be continued and evaluated next semester)			0	0	20	10	100
Total					6	0	20	16	300

Dissertation phase I: Evaluation procedure

- 1 The student shall attend for a formal VIVA- VOCE examination with an interim report on the work done by himself/herself in the 3rd semester of the course work, before the review committee.
- 2 The report shall comprise of a written document on the literature survey, problem identification, objectives of the work, and proposed methodology along with a power point presentation.

II Year - M. Tech. IV Semester

S. No.	Course No	Course Name	P.Os	Category	L	T	P	Credits	Marks
1		Dissertation Phase-II (continued from III Semester)			0	0	32	16	200
Total					0	0	32	16	200

Dissertation phase II: Evaluation procedure

- 1 The student shall attend for a formal VIVA- VOCE examination with the dissertation book on the work done by himself/herself in both the 3rd & 4th semesters of the course work, before the review committee.
- 2 The dissertation book shall be in the specified format in compliance with the guide lines of university.