



National Institute of Technology Meghalaya
An Institute of National Importance

CURRICULUM

Programme	Master of Technology	Year of Regulation	2025
Department	Civil Engineering	Semester	II

Course Code	Course Name	Pre-requisite	Credit Structure				Marks Distribution			
			L	T	P	C	INT	MID	END	Total
CE 535	Urban Environmental Management	NIL	3	0	0	3	50	50	100	200

Course Objectives	Course Outcomes	CO1		CO2		CO3		CO4		CO5	
		1. To develop skills and knowledge for translating the theory and concepts of resource and environmental management into practice relevant to communities and workplaces today 2. To apply monitoring and environmental management tools used by resource and environmental practitioners. 3. To consider the impacts of flows (energy, water, resources/waste) within the built, urban, agricultural and natural environments. 4. To consider the impacts of flows (energy, water, resources/waste) within the built, urban, agricultural and natural environments. 5. Study a curriculum that covers the cultures, values and roles, and concerns of institutions, organizations and stakeholders involved with understanding, evaluating, planning and managing the environment at a variety of scales. 6. Study a course that enables you to operate in a future-oriented, problem-solving way, and which yields sustainable solutions to environmental management problems.	Able to understand of environmental management approaches in India and internationally. Able to to analyse environmental management in relation to the major principles of sustainable development, defined broadly as: Biodiversity conservation; The Precautionary Principle; Economic sustainability; Intragenerational equity; and Intergenerational equity. Able to know the capacity to translate generic concepts and methods into critical reviews of contemporary, real-world environmental management practices.. Able to to work effectively to create environmental management analysis outputs of professional quality, both independently and within team environments Be able to conduct a project and firmly establish the study in a theoretical basis within environmental management and sustainable development								

SYLLABUS

No.	Content	Hours	COs
I	Introduction: Environmental management- principles, problems and strategies; Review of political, ecological and remedial actions; future strategies; multidisciplinary environmental strategies,	10	CO1, CO 2
II	Environmental Impact Assessment: planning, decision-making and management dimensions; environmental impact assessment (EIA), definitions and concepts, rationale and historical development of EIA	9	CO2, CO3, CO4
III	Sustainable Development: Sustainable development, Initial environmental examination, environmental impact statement, environmental appraisal, environmental impact factors and areas of consideration, measurement of environmental impact, organization, scope and methodologies of EIA, status of EIA in India.	11	CO2, CO3, CO4
IV	Environmental audit: Environmental audit, definitions and concepts, environmental audit versus accounts audit, compliance audit, methodologies and regulations; introduction to ISO and ISO 14000; Life cycle assessment; Triple bottom line approach.	12	CO4, CO5,
Total Hours		42	

Essential Readings

1. Glasson, J., Therivel R., Environmental Impact Assessment, Taylor and Francis, 5th Ed., 2019.
2. Agarwal, N. P., Environmental Reporting and Auditing, Raj Pub., 2002.
3. Morris, P., Morris, P., Methods of Environmental Impact Assessment, Routledge Taylor and Francis Group; 5th Ed., 2009

Supplementary Readings

1. G. Burke, B. R. Singh and L. Theodore., Handbook of Environmental Management and Technology, 2nd Ed., John Wiley & Sons, 2000.
2. Eccleston, C.H., Environmental impact assessment: a guide to best professional practices (e-book), CRC Press, 2011.