

DISASTER MANAGEMENT AND PREPAREDNESS

Course Code	20CE2701A	Year	IV	Semester	I
Course Category	Open Elective	Branch	IT/ME/EE E/ECE/ CE	Course Type	Theory
Credits	3	L – T – P	3-0-0	Prerequisites	20MC1301 – Environmental Science
Continuous Evaluation:	30	Semester End Evaluation:	70	Total Marks:	100

Course Outcomes		
Upon successful completion of the course, the student will be able to:		
CO1	Demonstrate basic terminology and classify types of disasters	L3
CO2	Outline the impacts of disaster	L2
CO3	Familiarize Disaster management activities and phases	L2
CO4	Explain the Components of disaster relief, disaster management policies	L3
CO5	Develop the responsibilities towards society after disaster	L3

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (3:Substantial, 2: Moderate, 1:Slight)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2	2					2			2				2
CO2	2	2					2			2				2
CO3	3	3					2			2				2
CO4	2	2					2			2				2
CO5	2	2					2			2				2
Avg.	2	2					2			2				2

Syllabus												
Unit No.	CONTENTS											Mapped CO
I	INTRODUCTION & DISASTERS CLASSIFICATION Concepts and definitions: disaster, hazard, vulnerability, resilience, risks severity, frequency and details, capacity, impact, prevention, mitigation. Disasters classification; natural disasters (floods, draught, cyclones, volcanoes, earthquakes, tsunami, landslides, forest fires.); manmade disasters (industrial pollution, nuclear radiation, chemical spills, terrorist strikes); hazard and vulnerability profile of India.											CO1
II	DISASTER IMPACTS Disaster impacts (environmental, physical, social, ecological, economical, political); health, psycho-social issues; demographic aspects (gender, age, special needs); hazard locations; global and national disaster trends; climate change and urban disasters											CO2

III	DISASTER MITIGATION AND PREPAREDNESS Disaster management cycle – its phases; prevention, mitigation, preparedness, relief and recovery; structural and non-structural measures; risk analysis, vulnerability and capacity assessment; early warning systems, Role of remote sensing and GIS in disaster management.	CO3
IV	POST DISASTER RESPONSE Emergency medical and public health services; Environmental post disaster response (water, sanitation, food safety, disease control, security, communications); reconstruction and rehabilitation; Roles and responsibilities of government, community, local institutions, role of agencies like NDMA, SDMA and other International agencies, organizational structure, role of insurance sector.	CO4
V	DISASTERS - ENVIRONMENT AND DEVELOPMENT Factors affecting vulnerability such as impact of developmental projects and environmental modifications (including of dams, land use changes, urbanization etc.), sustainable and environmental friendly recovery; reconstruction and development methods.	CO5

Learning Resources	
Text Books	
1. R. B. Singh, Disaster Management, Rawat Publications, 2000 2. Pradeep Sahni, 2004, Disaster Risk Reduction in South Asia, Prentice Hall. 3. Singh B.K., 2008, Handbook of Disaster Management: Techniques & Guidelines, Rajat Publication.	
Reference Books	
1. Disaster Medical Systems Guidelines. Emergency Medical Services Authority, State of California, EMSA no.214, June 2003 2. Inter-Agency Standing Committee (IASC) (Feb. 2007). IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings. Geneva: IASC	
E-Resources & other digital material	
1. http://ndma.gov.in/ (Home page of National Disaster Management Authority) 2. http://www.ndmindia.nic.in/ (National Disaster management in India, Ministry of Home Affairs).	