

PROGRAMME : CIVIL ENGINEERING COURSE NAME : DISASTER MANAGEMENT COURSE CODE : TH-4(b) SEMESTER : 6TH PERIODS/WEEK: 4 TOTAL PERIODS: 60	NAME OF THE FACULTY: SANJEEB MEHER
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WEEK	CLASS	TOPICS
1	1	Definition of hazards, disasters, difference between hazard and disaster.
	2	Concept of risk and vulnerability. Risk reduction: preparedness and mitigation.
	3	Disaster management cycle Personal and community awareness
	4	Types of disasters, earthquake, Tsunami, Landslide, cyclone ,flood, drought, forest fire, Chemical and industrial accidents.
2	1	Earthquakes: Definition and concept ,intensity, Richter’s scale.
	2	Earthquake: Elements at risk, Typical Effects
	3	Earthquake: Hazard Zones in India
	4	Main mitigation strategies of Earthquake, safe Engineering practice, Indian Standard code and enforcement Bye-Laws.
3	1	Tsunami: Definition and concept
	2	Tsunami: Onset, Type and Cases. Warming.
	3	Tsunami: Elements at risk. Typical effects, Physical damage, Environmental Damage, Casualties and Public health.
	4	Tsunami: Specific Preparedness: Hazard Mapping, Early warning systems, Community preparedness. Main mitigation strategies: Site planning and land management, Engineering structures. Flood management.
4	1	Landslides: Definition, concept, Onset time and warning.
	2	Landslides: Causes, Elements at risk.
	3	Landslides: Hazard zones and Indian landslides Typical effects: Physical damage, casualties.
	4	Landslides: Main mitigation strategies (Hazard mapping, Landslide practice, retaining walls, Surface drainage control works, Engineering structures). Community based mitigation.
5	1	Cyclones: Definition, concept, Onset type, Warning.
	2	Cyclones: Elements at risk, Typical effects, Indian Hazard Zones.
	3	Cyclones: Main mitigation strategies (Hazard mapping, Land use control, Engineering Structures, Flood management, improving vegetation cover). Community based mitigation.
	4	Floods: Definition, concept, Onset type, Warning.
6	1	Floods: Elements at risk, Hazard zones and Indian floods.
	2	Floods: Typical effects (Physical damage, Casualties and Public health, Crops and flood).
	3	Floods: Main mitigation strategies (Mapping of the flood prone areas, land use control, Flood control and management). Community based mitigation.
	4	Droughts: Definition, concept, Onset type and warning.
	1	Droughts: Elements at risk, Typical effects.

7	2	Droughts: Main mitigation strategies: drought monitoring, water supply augmentation and conservation. Drought Planning.
	3	Forest Fire: Definition and concept, Forest fire damages in India.
	4	Operational fire management systems and organizations. Community involvement.
8	1	Public policies concerning fire. The needs of fire management.
	2	Chemical and Industrial disasters: brief description,
	3	Chemical & Industrial disaster : effects, Preparedness.
	4	Epidemic: Onset type, warning, causes and effects, risk reduction measures
9	1	Heat waves: definition, dangers and effects, Forecasts and warning, awareness.
	2	Policy, Planning and Institutions for disaster mitigation: basics
	3	Role of policy makers in disaster risk reduction
	4	Course for specific action: policy planning
10	1	Institutional arrangement in India: Central level, State Level, District and Block level.
	2	Institutional arrangement in India: Central level, State Level, District and Block level
	3	Major institutions in National level
	4	Major institutions in State level.
11	1	Geospatial Application for Disaster Risk Management at Global and Local level: introduction
	2	Overview of Disaster Risk Management (DRM)
	3	Relevance of geospatial technologies in DRM
	4	Earth observation technologies
12	1	Application of earth observation technologies
	2	Remote sensing
	3	Geospatial intelligence for disaster management
	4	Application of remote sensing in hydro metrological, geological and environmental disaster.
13	1	International systems for disaster risk management: introduction
	2	UN-SPIDER
	3	International Charter for Space and Major Disasters,
	4	Copernicus Emergency Management Service & Sentinel Missions.
14	1	Revision of chapter-1,2
	2	Revision of chapter-3,4
	3	Revision of chapter-5,6
	4	Revision of chapter-7,8
15	1	Revision of chapter-9,10
	2	Revision of chapter-11
	3	Probable Questions discussion
	4	Probable Questions discussion