

Discipline:CIVIL	Semester: 6TH	Name of Teaching Faculty:-Shri Tapas Kumar Mallick &Mrs.Sushree Sasmita Sahoo
Subject:-Diaster M	No of Days/Week Class allotted:- 04	Semester from date: 04.02.2025 to 17.05.2025 No of Weeks: 15
Week	Claas Day	Theory Topics
1st	1st	1.Introduction:- Definition of hazards, disasters. Explain the difference between hazard and disaster.
	2nd	Concept of risk and vulnerability. Risk reduction: preparedness and mitigation.
	3rd	Diaster management cycle,personal and community awareness
	4th	Types of disasters, earthquake, Tsunami, Landslide, cyclone ,flood,drought,forest fire, Chemical and industrial accidents.
2nd	1st	2.Earthquacks:- Definition and concept ,intensity, Richter's scale.
	2nd	Element of risk,
	3rd	hazards zones in india
	4th	Typical effects.
3rd	1st	Main mitigation strategies,
	2nd	safe Engineering practice, Indian Standard code and
	3rd	3.Tsunami:- Concept,onset,type and cases
	4th	Warning,elements at risk
4th	1st	Typical effects-physical and environmental damage
	2nd	Specific preparedness,site planning and land management
	3rd	Main mitigation strategies: Site planning and land management, Engineering structures. Flood
	4th	4.Landslides:- Definition,Concept,onset time and warning
5th	1st	Causes and Elements at risk
	2nd	Hazard zones and Typical effects, Physical damage, Environmental Damage, Casualties and Public health.
	3rd	Specific Preparedness: Hazard Mapping, Early warning systems, Community preparedness.
	4th	Main mitigation strategies: Site planning and land management, Engineering structures. Flood management.

6th	1st	5.Cyclones:- Definition, concept.
	2nd	Onset type, Warning.
	3rd	Elements at risk.
	4th	Typical effects.Indian Hazard Zones.
7th	1st	Main mitigation strategies: Hazard mapping, Land use control, Engineering Structures, Flood management, improving vegetation cover.
	2nd	Community based mitigation.
	3rd	6.Floods:- Definition, concept, Onset type.
	4th	Warning.Elements at risk.
8th	1st	Hazard zones and Indian floods.
	2nd	Typical effects: Physical damage, Casualties and Public health, Crops and flood.
	3rd	Main mitigation strategies: Mapping of the flood prone areas, land use control, Flood control and management
	4th	Community based mitigation.
9th	1st	7.Droughts:- Definition, concept.
	2nd	Onset type and warning.
	3rd	Elements at risk.Typical effects.
	4th	Main mitigation strategies: drought monitoring, water supply augmentation and conservation.
10th	1st	Drought Planning.
	2nd	8.Forest fire:- Definition and concept
	3rd	Forest fire damages in India.
	4th	Operational fire management systems and organizations.
11th	1st	Community involvement.
	2nd	Public policies concerning fire.The needs of fire management.
	3rd	9.Other types of hazards and diasters:- Chemical disasters: brief description, effects, Preparedness.
	4th	Industrial disasters : brief description, effects, Preparedness

12th	1st	Epidemic: Onset type, warning, causes and effects, risk reduction measures.
	2nd	Heat waves: definition, dangers and effects
	3rd	Forecasts and warning, awareness.
	4th	10. Policy, planning and institution for disaster mitigation:- Role of policy makers in disaster risk reduction
13th	1st	course for specific action.
	2nd	Institutional arrangement in India: Central level, State Level
	3rd	Institutional arrangement in India: District and Block level.
	4th	Major institutions in National and State level.
14th	1st	11. Geospatial Application for Disaster Risk Management at Global and Local level :- Overview of Disaster Risk Management (DRM)
	2nd	Relevance of geospatial technologies in DRM
	3rd	Earth observation technologies and their application in disaster management.
	4th	Remote sensing and geospatial intelligence for disaster management.
15th	1st	Application of remote sensing in hydro metrological, geological disaster.
	2nd	Application of remote sensing IN environmental disaster.
	3rd	International systems for disaster risk management:- UN-SPIDER, International Charter for Space and Major Disasters,
	4th	Copernicus Emergency Management Service & Sentinel Missions.

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28/01/25