

## LESSON PLAN

Discipline:

Civil Engg. ,UGMIT Rayagada

Semester:

6<sup>TH</sup>

Subject:

Disaster Management (Th-4)

Class allotted:

4P/Week

Session:

2024 (S)

Week	Class Day	Theory	Remarks
1	1-4	<b>1 Introduction</b> 1.1 Definition of hazards, disasters. Explain the difference between hazard and disaster. 1.2 Concept of risk and vulnerability. Risk reduction: preparedness and mitigation. 1.3 Disaster management cycle 1.4 Personal and community awareness. 1.5 Types of disasters, earthquake, Tsunami, Landslide, cyclone ,flood,drought,forest fire, Chemical and industrial accidents.	
2	5-8	<b>2 Earthquakes.</b> 2.1 Definition and concept ,intensity, Richter's scale. 2.2 Element of risk. 2.3 Hazard Zones in India. 2.4 Typical effects.	
3	9-12	2.5 Main mitigation strategies, safe Engineering practice, Indian Standard code and enforcement Bye-Laws. <b>3 Tsunami.</b> 3.1 Definition and concept. 3.2 Onset, Type and Cases. 3.3 Warning. 3.4 Elements at risk.	
4	13-16	3.5 Typical effects, Physical damage, Environmental Damage, Casualties and Public health. 3.6 Specific Preparedness: Hazard Mapping, Early warning systems, Community preparedness. 3.7 Main mitigation strategies: Site planning and land management, Engineering structures. Flood management. <b>4 Landslides.</b> 4.1 Definition, concept. 4.2 Onset time and warning. 4.3 Causes. 4.4 Elements at risk.	
5	17-20	4.5 Hazard zones and Indian landslides. 4.6 Typical effects: Physical damage, casualties. 4.7 Main mitigation strategies: Hazard mapping, Landslide practice, retaining walls, Surface drainage control works, Engineering structures. 4.8 Community based mitigation.	
6	21-24	<b>5 Cyclones.</b> 5.1 Definition, concept. 5.2 Onset type, Warning. 5.3 Elements at risk. 5.4 Typical effects. 5.5 Indian Hazard Zones.	

7	25-28	5.6 Main mitigation strategies: Hazard mapping, Land use control, Engineering Structures, Flood management, improving vegetation cover. 5.7 Community based mitigation <b>6. Floods.</b> 6.1 Definition, concept, Onset type. 6.2 Warning. 6.3 Elements at risk.	
8	29-32	6.4 Hazard zones and Indian floods. 6.5 Typical effects: Physical damage, Casualties and Public health, Crops and flood. 6.6 Main mitigation strategies: Mapping of the flood prone areas, land use control, Flood control and management. 6.7 Community based mitigation.	
9	33-36	<b>7 Droughts.</b> 7.1 Definition, concept. 7.2 Onset type and warning. 7.3 Elements at risk. 7.4 Typical effects. 7.5 Main mitigation strategies: drought monitoring	
10	37-40	water supply augmentation and conservation. 7.6 Drought Planning. 7.6 Drought Planning. <b>8 Forest Fire.</b> 8.1 Definition and concept. 8.2 Forest fire damages in India. 8.3 Operational fire management systems and organizations. 8.4 Community involvement.	
11	41-44	8.5 Public policies concerning fire. 8.6 The needs of fire management <b>9 Other type of Hazards and disasters.</b> 9.1 Chemical and Industrial disasters: brief description, effects, Preparedness.	
12	45-48	9.2 Epidemic: Onset type, warning, causes and effects, risk reduction measures. 9.3 Heat waves: definition, dangers and effects, Forecasts and warning, awareness. <b>10 Policy, Planning and Institutions for disaster mitigation.</b> 10.1 Role of policy makers in disaster risk reduction, course for specific action.	
13	49-52	10.2 Institutional arrangement in India: Central level, State Level, District and Block level. 10.3 Major institutions in National and State level.	
14	53-56	<b>11 Geospatial Application for Disaster Risk Management at Global and Local level</b> 11.1 Overview of Disaster Risk Management (DRM) and relevance of geospatial technologies in DRM 11.2 Earth observation technologies and their application in disaster management. 11.3 Remote sensing and geospatial intelligence for disaster management	
15	57-60	11.4 Application of remote sensing in hydro metrological, geological and	

environmental disaster.

11.5 International systems for disaster risk management:- UN-  
SPIDER,  
International Charter for Space and Major Disasters, Copernicus  
Emergency Management Service & Sentinel Missions.

Signature of Faculty:

  
13/11/24

Signature of HOD:

  
13/11/24