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| Discipline: Civil | Semester: 6th | Name Of The Teaching Faculty: SANGRAM MIASHRA |
| Subject: DISASTER MANAGEMENT | No. Of Days/Week Class Allotted: 4 | No. Of Weeks: 15 From - 22.12.2025 to 18.4.2026 |
| Week | Class Day | Theory Topics |
| 1 | 1 | UNIT 1: Introduction to Disaster Management Definition of hazards, disasters Explain the 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 | UNIT 2: Earthquakes Definition and concept, intensity, |
| | 2 | Richter's scale, Element of risk. |
| | 3 | Hazard Zones in India, Typical effects |
| | 4 | Main mitigation strategies, safe Engineering practice, Indian Standard code and enforcement Bye-Laws. |
| 3 | 1 | Main mitigation strategies, safe Engineering practice, Indian Standard code and enforcement Bye-Laws. |
| | 2 | UNIT 3: Tsunami |
| | 3 | Definition and concept, Onset, Type and Cases, |
| | 4 | Warning, Elements at risk |
| 4 | 1 | Typical effects, Physical damage, Environmental Damage, Casualties and Public health |
| | 2 | Specific Preparedness: Hazard Mapping, Early warning systems, Community preparedness |
| | 3 | Main mitigation strategies: Site planning and land management, Engineering structures Flood management |
| | 4 | UNIT 4: Landslides Definition, concept, Onset time and warning. |
| 5 | 1 | Causes, Elements at risk, Hazard zones and Indian landslides |
| | 2 | Typical effects: Physical damage, casualties |
| | 3 | Main mitigation strategies: Hazard mapping, Landslide practice, retaining walls |
| | 4 | Surface drainage control works, Engineering structures, Community based mitigation. |
| 6 | 1 | UNIT 5: Cyclones Definition, concept, Onset type, Warning |
| | 2 | Elements at risk, Typical effects |
| | 3 | Indian Hazard Zones |
| | 4 | Main mitigation strategies: Hazard mapping, Land use control, Engineering Structures |
| 7 | 1 | Flood management, improving vegetation cover |
| | 2 | Community based mitigation. |
| | 3 | UNIT 6: Floods Definition, concept, Onset type, Warning. |
| | 4 | Elements at risk |
| 8 | 1 | Hazard zones and Indian floods |
| | 2 | Typical effects: Physical damage, Casualties and Public health, Crops and flood |
| | 3 | Main mitigation strategies: Mapping of the flood prone areas, land use control, Flood control and management. |
| | 4 | Community based mitigation. |
| 9 | 1 | UNIT 7: Droughts Definition, concept, Onset type and warning. |
| | 2 | Elements at risk |
| | 3 | Typical effects |
| | 4 | Main mitigation strategies: drought monitoring, water supply augmentation and conservation. |
| 10 | 1 | Drought Planning |
| | 2 | UNIT 8: Forest Fire Definition and concept, Forest fire damages in India |
| | 3 | Operational fire management systems and organizations |
| | | Community involvement. |

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| | 4 | Public policies concerning fire | |
| | 1 | The needs of fire management | |
| 11 | 2 | UNIT 9: Other Hazards and Disasters | Chemical |
| | | and Industrial disasters: brief description, effects | |
| | 3 | Chemical and Industrial disasters Preparedness, safety measures. | |
| | 4 | Epidemic: Onset type, warning, causes and effects, risk reduction measures | |
| 12 | 1 | Heat waves: definition, dangers and effects | |
| | 2 | Forecasts and warning awareness | |
| | 3 | UNIT 10: Policy, Planning and Institutions for Disaster Mitigation | |
| | | Role of policy makers in disaster risk reduction | |
| 13 | 4 | course for specification. | |
| | 1 | Institutional arrangement in India: Central level, State Level | |
| | 2 | Institutional arrangement in India: District and Block level. | |
| | 3 | Major institutions in National and State level | |
| | 4 | UNIT 11: Geospatial Applications for Disaster Risk Management | |
| 14 | | Overview of Disaster Risk Management (DRM) and relevance of geospatial technologies in DRM | |
| | 1 | Earth observation technologies and their application in disaster management. | |
| | 2 | Remote sensing for disaster management | |
| | 3 | Geospatial intelligence for disaster management | |
| | 4 | Application of remote sensing in hydro metrological, geological | |
| 15 | 1 | Application of remote sensing in environmental disaster. | |
| | 2 | International systems for disaster risk management: - UN-SPIDER, International Charter for Space and Major Disasters | |
| | 3 | UNIT 11: Geospatial Applications for Disaster Risk Management | |
| | | Overview of Disaster Risk Management (DRM) and relevance of geospatial technologies in DRM | |
| | 4 | REVISION | |

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