



**Minor Degree
in
Disaster Sciences
(Under NEP-2020)
Offered by
Centre for Disaster Risk Reduction
Syllabus for 1st Semester**

Course Code	Course Title	Credits	L	T	P	S
CDRR100MN	Introduction to Disasters	04	3	1	0	0
Course Objectives: This course introduces core definitions and concepts in disaster studies, and provide an overview of natural, biological, technological, and anthropogenic hazards, with a focus on vulnerability.						
Course Outcomes: Students will be able to define key disaster terms, classify different hazard types, explain the risk-vulnerability-capacity relationship, and understand the vulnerability profile of Jammu and Kashmir.						
Course Content						
UNIT-I: Introduction (15 Hours) Hazards and Disasters – Definition; Key concepts in disaster studies – hazard, disaster, vulnerability – physical, social, economic and environmental; Risk, Exposure, Preparedness, Mitigation, Capacity, Resilience, etc. Relationship between Risk, Hazard, Vulnerability, and Capacity. Vulnerability profile of Jammu and Kashmir.						
Unit-II: Natural Hazards (15 Hours) Definition and Types of Natural Hazards; Geological Hazards – Earthquakes, Landslides, Volcanoes, Land Subsidence, Liquefaction, and Tsunamis; Hydro-Meteorological Hazards – Floods, Cloud Bursts, Flash-floods, Glacier Lake Outburst Floods (GLOFs), Droughts, Cyclones, Snow Avalanches, Hailstorms, Cold and Heat Waves.						
Unit-III: Biological and Technological Hazards (15 Hours) Definition and Types of Biological Hazards – Pandemics, Epidemics, Pest Attacks, and Forest Fires; Definition and Types of Technological Hazards – Chemical, Industrial, Radiological, and Nuclear.						
Unit-IV: Anthropogenic Hazards (15 Hours) Definition and Types of Anthropogenic Hazards – Rural and Urban Fires; Pollution – Water, Air, and Soil; Industrial Pollution; Environmental Degradation; War and Terrorism, Accidents – Air, Sea, Rail, and Roads.						

Suggested Reading:

- Vaidyanathan, S., 2020. *An introduction to disaster management*.
- Alexander, D., 2018. *Natural disasters*. Routledge.
- Singh, R.B., 2012. *Natural Hazards & Disaster Management Vulnerability and Mitigation*. Rawat Publications.
- Smith, K. (1997). *Environmental hazards: assessing risk and reducing disaster*. *Environment International*, 23(3), 422-422.
- “Understanding Disasters” [https://nidm.gov.in/PDF/Disaster about.pdf](https://nidm.gov.in/PDF/Disaster%20about.pdf)