

## **MBAS 459: DISASTER MANAGEMENT**

<b>Workload</b>	: 04 hours per week - Total credits: 4
<b>Examination</b>	: 3 hours; 30 marks continuous evaluation & 70 marks final examination.
<b>Objectives</b>	: 1. Understood clearly the foundations, reasons for occurrence of disaster and associated natural calamities. 2. Understood the necessity of technological innovations in Disaster Risk Reduction (DRR) 3. Reduces community vulnerability through hazard analysis and mitigation.
<b>Course outcomes</b>	1. Know Roles and Responsibilities of Different Agencies and Government. 2. Build and implement a community hazard mitigation plan. 3. Emergency management system.
<b>Pedagogy</b>	: Lectures, assignments, Industrial visits and practical exercises, discussions, seminars.

**Module 1, Understanding Disasters:** Meaning, nature, characteristics and types of Disasters, Causes and effects, Disaster: A Global View, Disaster Profile of India, The Disaster Management Cycle.

**Module 2, Geological and Mountain Area Disasters:** Earthquakes · Volcanic Eruption · Landslides Snow Avalanches, Wind and Water Related Natural Disaster · Floods and Flash Floods, Droughts · Cyclones · Tsunamis, Man Made Disasters · Understanding Man-Made Disasters · Fires and Forest Fires · Nuclear, Biological and Chemical disaster · Road Accidents.

**Module 3, Disaster Preparedness:** Disaster Management: Prevention, Preparedness and Mitigation · Disaster Preparedness: Concept & Nature · Disaster Preparedness Plan · Disaster Preparedness for People and Infrastructure · Community based Disaster Preparedness Plan.

**Module 4, Role & Responsibilities of Government and agencies:** Role of Information, Education, Communication & Training · Role and Responsibilities of Central, State, District and local administration. Role and Responsibilities of Armed Forces, Police, Para Military Forces. Role and Responsibilities of International Agencies, NGO's, Community Based Org. (CBO's).

**Module 5, Technologies for Disaster Management:** Role of IT in Disaster Preparedness · Remote Sensing, GIS and GPS · Use and Application of Emerging Technologies · Application of Modern Technologies for the Emergency communication. · Application and use of ICST for different disasters.

**Module 6, Disaster Mitigation:** Disaster Mitigation: meaning and concept · Disaster Mitigation Strategies · Emerging Trends in Disaster Mitigation · Mitigation management · Role of Team and Coordination.

**Module 7, Disaster Management in India:** Disaster Profile of India – Mega Disasters of India and Lessons Learnt Disaster Management Act 2005 – Institutional

and Financial Mechanism National Policy on Disaster Management, National Guidelines and Plans on Disaster Management; Role of Government (local, state and national), Non-Government and Inter-Governmental Agencies. National Disaster management Authority.

### Reference Books:

1. Bryant Edwards (2005): Natural Hazards, Cambridge University Press, U.K.
2. Carter, W. Nick, 1991: Disaster Management, Asian Development Bank, Manila.
3. Central Water Commission, 1987, Flood Atlas of India, CWC, New Delhi.
4. Central Water Commission, 1989, Manual of Flood Forecasting, New Delhi.
5. Government of India, 1997, Vulnerability Atlas of India, New Delhi.
6. Sahni, Pardeep et.al. (eds.) 2002, Disaster Mitigation Experiences and Reflections, Prentice Hall of India, New Delhi.
7. Bryant Edwards (2005): Natural Hazards, Cambridge University Press, U.K.
8. Roy, P.S. (2000): Space Technology for Disaster management: A Remote Sensing & GIS Perspective, Indian Institute of Remote Sensing (NRSA) Dehradun.
9. Sharma, R.K. & Sharma, G. (2005) (ed) Natural Disaster, APH Publishing Corporation, New Delhi. [www.GIS.Development.net](http://www.GIS.Development.net)
10. [www.iirs.nrsa.org](http://www.iirs.nrsa.org)
11. <http://quake.usgs.gov>
12. K.N.Shastrri, Disaster Management in India, Gaurav Book Centre Pvt Ltd,
13. Jagbir Singh, Disaster Management, I K International Pvt. Ltd-New Delhi.

\*\*\*\*\*