

IV Year I Semester
17CE741

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DISASTER MANAGEMENT
(Open Elective – I)

Course Learning Objectives:

The objective of this course is:

1. Develop an understanding of why and how the modern disaster manager is involved with pre-disaster and post-disaster activities.
2. Develop an awareness of the chronological phases of natural disaster response and refugee relief operations. Understand how the phases of each are parallel and how they differ.
3. Understand the 'relief system' and the 'disaster victim.'
4. Describe the three planning strategies useful in mitigation.
5. Identify the regulatory controls used in hazard management.
6. Describe public awareness and economic incentive possibilities.
7. Understand the tools of post-disaster management.

Course Outcomes:

Upon the successful completion of this course, the students will be able to:

- a. Affirm the usefulness of integrating management principles in disaster mitigation work
- b. Distinguish between the different approaches needed to manage pre-during and post-disaster periods
- c. Explain the process of risk management
- d. Relate to risk transfer

SYLLABUS:

UNIT-I

Natural Hazards And Disaster Management: Introduction of DM – Interdisciplinary – nature of the subject–Disaster Management cycle – Five priorities for action. Case study methods of the following: floods, draughts – Earthquakes – global warming, cyclones & Tsunamis – Post Tsunami hazards along the Indian coast– landslides.

UNIT-II

Man Made Disaster And Their Management Along With Case Study Methods Of The Following : Fire hazards–transport hazard dynamics – solid waste management – post disaster – bio terrorism - threat in megacities, rail and air craft's accidents, and Emerging infectious diseases & Aids and their management.

UNIT-III

Risk And Vulnerability: Building codes and land use planning – social vulnerability – environmental vulnerability – Macroeconomic management and sustainable development, climate change risk rendition–financial management of disaster– related losses.

UNIT-IV

Role Of Technology In Disaster Managements: Disaster management for infra structures, taxonomy of infra structure – treatment plants and process facilities-electrical substations- roads and bridges- mitigation programme for earth quakes–flow chart, geospatial information in agriculture drought assessment - multimedia technology in disaster risk management and training – transform able indigenous knowledge in disaster reduction.

UNIT-V

Education And Community Preparedness: Education in disaster risk reduction-Essentials of school disaster education-Community capacity and disaster resilience-Community based disaster recovery -Community based disaster management and social capital - Designing resilience - building community capacity for action.

UNIT-VI

Multi – section al Issues : Impact of disaster on poverty and deprivation - Climate change adaptation and human health - Exposure , health hazards and environmental risk-Forest management and disaster risk reduction. - Institutional capacity in disaster management - The Red cross and red crescent movement. – Corporate sector and disaster risk reduction – A community focused approach.

TEXTBOOKS:

1. ‘Disaster Management–Global Challenges and Local Solutions ’by Rajibshah & R R Krishnamurthy (2009),Universities press.
2. ‘Disaster Science & Management ’by Tushar Bhattacharya, Tata Mc Graw Hill Education Pvt. Ltd., New Delhi.
3. ‘Disaster Management–Future Challenges and Opportunities ’by Jagbir Singh (2007), I K International Publishing House Pvt. Ltd.

REFERENCEBOOKS:

1. ‘Disaster Management’ edited by H K Gupta (2003),Universities press.