

Add-On Course

On

Disaster Management



Department of Geography
Silda Chandrasekhar College

Session: 2023 – 2024

I. Basic Details of the course

1. Course Title : Disaster Management

2. Context :

A disaster is an event that causes serious harm to people, buildings, economies, or the environment, and the affected community cannot handle it alone. There is a special need to study "disaster management" to protect the beautiful environment from this destruction.

The main topic of discussion in this course is -

What is a disaster?

Why is it created?

How to prevent?

3. Prerequisite :

Natural environment is our best friend. So it is necessary to have an idea about this friendly environment.

4. Course Objective:

The objectives of disaster management are:

A. To provide basic conceptual understanding of disasters.

B. To understand approaches of disaster management.

C. To build skills to respond to disaster.

5. Programme Highlights and Unique Features:

This add-on course mainly focuses on Disaster Preparing, Responding, Learning, Building capacity, Protecting and Rebuilding.

6. Career Prospect:

Career Prospects are -

- NDMA- The National Disaster Management Authority (NDMA) is the leading government organization in India that formulates policies and guidelines for disaster management.

- UNDRR- The UNDRR offers a guide on enhancing disaster preparedness for effective response. The guide provides practical examples of risk-informed preparedness and insights into national and local risk reduction strategies.

- IFRC- The IFRC provides information on public awareness and public education for disaster risk reduction.

- UN Spider- The UN Spider provides information on the three phases of emergency and disaster management: response, rehabilitation, and recovery.

- DisasterAssistance.gov-

The DisasterAssistance.gov website provides information on disaster assistance, including low-interest disaster loans for businesses and homeowners. You can apply for assistance online at DisasterAssistance.gov.

•Ready.gov- The Ready.gov website provides general resources for disaster planning in 13 languages.

7. **Faculty Requirement:** Department of geography teacher's in our college

8. **Course Fee:** Nil

9. **Target Students:** Any students

10. **Intake Capacity:** 50

11. **Contact Hours:** 30 hours

12. Course Outcome:

There is a close relationship between man and nature. The frequency of disasters is increasing with the development of present civilization. So recently disaster management is an important topic.

A disaster management course can help students develop a variety of skills and knowledge, including:

a) Disaster risk reduction - Learn how to implement disaster risk reduction (DRR) strategies, including prevention, mitigation, preparedness, response, and recovery.

b) Research- Learn how to analyze and evaluate research on disaster management and

c) Decision making- Learn how to make effective decisions in disaster management.

d) Public health- Learn how to analyze, evaluate, and manage public health aspects of disasters.

e) Resilience- Learn how to implement resilience strategies to make communities less vulnerable to disasters.

f) Communication- Learn how to implement effective communication strategies during crises.

g) Coordination- Learn how to coordinate with emergency response agencies and humanitarian organizations.

h) Psychological first aid- Learn how to understand and apply psychological first aid and trauma-informed care principles in disaster situations.

13. **Course Co-ordinator:** Sridam Kar

II. Curriculum Structure of the Add-On Course

| Unit | Title | Hours | No of lectures |
|-------|--|-------|----------------|
| 1 | Definition and types of disaster | 08 | 08 |
| 2 | Study of Important disasters | 08 | 08 |
| 3 | Mitigation and Management techniques of Disaster | 08 | 08 |
| 4 | Training, awareness program and project on disaster management | 06 | 06 |
| Total | | 30 | 30 |

III. Detailed Curriculum of the Course

Unit – 1: Definition and types of disaster [08 Lectures]

Hazards and Disasters, Risk and Vulnerability in Disasters, Natural and Man-made disasters, earthquakes, floods, drought, landside, cyclones, volcanoes, tsunamis, avalanches, global climate extremes. Man-made disasters: Terrorism, gas and radiations leaks, toxic waste disposal, oil spills, forest fires, land subsidence.

Unit – 2: Study of Important disasters [08 Lectures]

Earthquakes and its types, magnitude and intensity, seismic zones of India, major fault systems of India plate, flood types and its management, drought types and its management, landside and its managements case studies of disasters in Sikkim (e.g) Earthquakes, Landside). Social Economics and Environmental impact of disasters.

Unit – 3: Mitigation and Management techniques of Disaster [08 Lectures]

Basic principles of disasters management, Disaster Management cycle, Disaster management policy, National and State Bodies for Disaster Management, Early Warning Systems, Building design and construction in highly seismic zones, retrofitting of buildings.

Unit – 4: Training, awareness program and project on disaster management [06 Lectures]

Training and drills for disaster preparedness, Awareness generation program, Usages of GIS and Remote sensing techniques in disaster management, Mini project on disaster risk assessment and preparedness for disasters with reference to disasters in Sikkim and its surrounding areas.

IV. Lesson Plan of the Course

| Lectures (1 Lecture = 1 hour) | Content |
|----------------------------------|--|
| 08 Lectures | Hazards and Disasters, Risk and Vulnerability in Disasters, Natural and Man-made disasters, earthquakes, floods drought, landside, land subsidence, cyclones, volcanoes, tsunami, avalanches, global climate extremes. Man-made disasters: Terrorism, gas and radiations leaks, toxic waste disposal, oil spills, forest fires. |
| 08 Lectures | Earthquakes and its types, magnitude and intensity, seismic zones of India, major fault systems of India plate, flood types and its management, drought types and its management, landside and its managements case studies of disasters in Sikkim (e.g) Earthquakes, Landside). Social Economics and Environmental impact of disasters. |

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|-------------|---|
| 08 Lectures | Basic principles of disasters management, Disaster Management cycle, Disaster management policy, National and State Bodies for Disaster Management, Early Warning Systems, Building design and construction in highly seismic zones, retrofitting of buildings. |
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V. Evaluation Policy

- Total Marks: 50
- Theory Examination (Objective Type / MCQ type): 30
- Project work / Field Work / Practical Examination / Group Discussion (*choose any one*): 15
- Attendance: 5
- Pass Marks: 25

VI. Gradation System

| Marks Obtained | Grade |
|----------------|-------|
| 45 – 50 | A + |
| 40 – 44 | A |
| 35 – 39 | B + |
| 30 – 34 | B |
| 25 – 29 | C |
| Below 25 | Fail |

VII. Certification

Students will be awarded by a certificate after the successful completion of the course.

VII. Learning Resources:

1. Disaster Management Guidelines, GOI-UND Disaster Risk Program (2009-2012)
2. Damon, P. Copola, (2006) Introduction to International Disaster Management, Butterworth Heineman.
3. Gupta A.K., Niar S.S and Chatterjee S. (2013) Disaster management and Risk Reduction, Role of Environmental Knowledge, Narosa Publishing House, Delhi.
4. Murthy D.B.N. (2012) Disaster Management, Deep and Deep Publication PVT. Ltd. New Delhi.

5. Modh S. (2010) Managing Natural Disasters, Mac Millan publishers India LTD.
6. Dr. Mrinalini Pandey Disaster Management Wiley India Pvt. Ltd.
7. Tushar Bhattacharya Disaster Science and Management McGraw Hill Education(India) Pvt. Ltd.
8. Jagbir Singh Disaster Management : Future Challenges and Opportunities K W Publishers Pvt. Ltd.
9. J. P. Singhal Disaster Management Laxmi Publications.
10. Shailesh Shukla, Shamna Hussain Biodiversity, Environment and Disaster Management Unique Publications.
11. C. K. Rajan, Navale Pandharinath Earth and Atmospheric Disaster Management : Nature and Manmade B S Publication.