



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal - 500 043, Hyderabad, Telangana

## COURSE CONTENT

DISASTER MANAGEMENT								
III Semester: AE, CSE, ES, EPS, STE								
Course Code	Category	Hours / Week			Credits	Maximum Marks		
BHSE03	Audit	L	T	P	C	CIA	SEE	Total
		2	-	-	-	-	-	-
<b>Contact Classes: Nil</b>	<b>Total Tutorials: Nil</b>	<b>Total Practical Classes: Nil</b>			<b>Total Classes: Nil</b>			
<b>Prerequisite: NIL</b>								

### I. COURSE OVERVIEW:

In the course on disaster management, students will explore a range of important topics and gain valuable knowledge and skills to effectively address and mitigate the impact of disasters and covers areas like Repercussions of Disasters and Hazards, Disaster-Prone Areas in India, Risk Assessment and Disaster Mitigation

### II. COURSE OBJECTIVES:

#### The students will try to learn:

- I. How to demonstrate a critical understanding of key concepts in disaster risk reduction and humanitarian response.
- II. How critically evaluate disaster risk reduction and humanitarian response policy and practice from multiple perspectives.
- III. The understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations.
- IV. The strengths and weaknesses of disaster management approaches, planning and programming in different countries, particularly their home country or the countries they work in.

### III. COURSE OUTCOMES:

#### After successful completion of the course, students should be able to:

- CO 1 Understand to describe the basic types of Environmental hazards and disasters. Understand how to react effectively to natural, manmade, and technological threats.
- CO 2 Understand how to react effectively to natural, manmade, and planetary hazards
- CO 3 Explore the history of the field and comprehend how past events are earthquake, landslides, and volcanic hazards.
- CO 4 Describe the basic concepts of the emergency management cycle mitigation, preparedness, response, and recovery
- CO 5 Recognizes the stakeholders in disaster management system, their jurisdiction and responsibilities

#### **IV. COURSE CONTENT:**

##### **MODULE – I: INTRODUCTION**

Disaster: Definition, Factors and Significance; Difference between Hazard and Disaster; Natural and Manmade Disasters: Difference, Nature, Types and Magnitude.

##### **MODULE – II: REPERCUSSIONS OF DISASTERS AND HAZARDS**

Economic Damage, Loss Of Human And Animal Life, Destruction Of Ecosystem. Natural Disasters: Earthquakes, Volcanisms, Cyclones, Tsunamis, Floods, Droughts and Famines, Landslides and Avalanches, Man-made disaster: Nuclear Reactor Meltdown, Industrial Accidents, Oil Slicks and Spills, Outbreaks of Disease And Epidemics, War And Conflicts.

##### **MODULE – III: DISASTER PRONE AREAS IN INDIA**

Study of Seismic Zones; Areas Prone To Floods And Droughts, Landslides And Avalanches; Areas Prone To Cyclonic And Coastal Hazards With Special Reference To Tsunami; Post-Disaster Diseases And Epidemics.

##### **MODULE – IV: DISASTER PREPAREDNESS AND MANAGEMENT**

Preparedness: Monitoring of Phenomena Triggering A Disaster Or Hazard; Evaluation Of Risk: Application Of Remote Sensing, Data From Meteorological And Other Agencies, Media Reports: Governmental And Community Preparedness.

##### **MODULE – IV: RISK ASSESSMENT & DISASTER MITIGATION**

Disaster Risk: Concept And Elements, Disaster Risk Reduction, Global And National Disaster Risk Situation. Techniques Of Risk Assessment, Global Co-Operation In Risk Assessment And Warning, People's Participation In Risk Assessment. Strategies for Survival. Disaster Mitigation: Meaning, Concept And Strategies Of Disaster Mitigation, Emerging Trends In Mitigation. Structural Mitigation And Non-Structural Mitigation, Programs Of Disaster Mitigation In India.

#### **V. TEXT BOOKS:**

1. R. Nishith, Singh AK, “Disaster Management in India: Perspectives, issues and strategies”, New Royal Book Company.

#### **VI. REFERENCE BOOKS:**

1. Sahni, PardeepEt.Al, “Disaster Mitigation Experiences and Reflections”, Prentice Hall Of India, New Delhi.
2. Goel S. L. “Disaster Administration and Management Text and Case Studies”, Deep & Deep Publication Pvt. Ltd., New Delhi.

#### **VII. WEB REFERENCE:**

1. <http://nptel.ac.in/courses/105101010/downloads/Lecture37.pdf>

#### **VIII. E-TEXT BOOKS:**

1. Disaster management by Vinod k. Sharma