



## **Indira Gandhi Delhi Technical University For Women**

(Established by Govt. of Delhi vide Act 09 of 2012)

**Kashmere Gate, Delhi-110006**

ISO 9001:2015 Certified University

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**Revised Syllabus of DISASTER MANAGEMENT**  
**B. Tech-4<sup>th</sup> Semester**  
**(CSE, ECE, IT, MAE, CSE-AI, ECE- AI, AI-ML, DMAM)**  
**w.e.f**  
**Academic Year 2022-2023 Onwards**

<b>Fourth Semester</b>					
<b>S. No.</b>	<b>Code</b>	<b>Subject</b>	<b>L-T-P</b>	<b>Credits</b>	<b>Category</b>
1.	HMC-202	Disaster Management	2-0-0	2	HMC

<b>DISASTER MANAGEMENT</b>	
Course Code: HMC-202 Contact Hours: L-2 T-0 P-0 Course Category: HMC	Credits: 2 Semester: 4

**Introduction** - Natural and technological hazards affect the everyday life as well as long-term development plans. For many decades the prevailing approach in dealing with disasters was focus on response and recovery, however lately pre-disaster actions to minimize the disaster risks are getting importance. The course introduces Disaster Management, focusing on natural disasters.

**Course Objective:**

- To increase the knowledge and understanding of the disaster phenomenon, its different contextual aspects, impacts and public health consequences
- To ensure knowledge, skills and abilities to analyze potential effects of disasters and the strategies and methods for disaster reduction

**Pre-requisite:** None

**Course Outcomes -**

- CO1-** Learning and understanding the basic knowledge of Disaster Management concept and different approaches to reduce the impact of disaster
- CO2-** Understand the types of disaster their origin causes and their management and the disaster profile of India
- CO3-** Learning to apply the knowledge of technology for monitoring and management of the disaster
- CO4-** Drill based learning of disaster management

**CO-PO Mapping**

	<b>PO1</b>	<b>PO2</b>	<b>PO3</b>	<b>PO4</b>	<b>PO5</b>	<b>PO6</b>	<b>PO7</b>	<b>PO8</b>	<b>PO9</b>	<b>PO10</b>	<b>PO11</b>	<b>PO12</b>
<b>CO1</b>	2	3	3	3	0	1	0	0	0	0	0	3
<b>CO2</b>	3	3	2	3	0	0	2	0	0	0	0	3
<b>CO3</b>	3	1	2	2	3	0	1	0	0	0	0	3
<b>CO4</b>	3	3	3	2	3	2	2	3	3	3	3	3

**Pedagogy:** Classroom teaching, Practical, demonstrations and field work

## Contents

<b>UNIT-I</b>	<b>6 Hours</b>
Concepts and definitions of (disaster - hazard, vulnerability, resilience, risk) Disaster Management (meaning and concept), method and approaches for disaster management-pre-disaster stage (preparedness, mitigation, prevention) and post-disaster stage (relief, recovery, rehabilitation)	
<b>UNIT-II</b>	<b>8 Hours</b>
Categories of disasters - natural and manmade Natural disasters (origin, causes and their management) – earthquake, tsunami, cyclone, flood, land slide Disaster Profile of India – Mega Disasters of India and Lessons Learnt (Bengal Famine, Bhopal gas tragedy, Bhuj earthquake, Tsunami) Factors affecting Vulnerabilities	
<b>UNIT-III</b>	<b>7 Hours</b>
Geo-informatics in Disaster Management- Remote Sensing (RS), Geographical information system (GIS), Global Positioning Service (GPS), Indian Regional Navigation Satellite System (IRNSS): NavIC Indian Tsunami Early Warning System (ITEWS) Use of ICT and mobile technology for Disaster management, Application of Drone.	
<b>UNIT IV</b>	<b>7 Hours</b>
Disaster Management Act 2005, Institutional framework under Disaster Management act 2005 Role of National Disaster Management Authority (NDMA) Search and Rescue Operations, (one and two-person method) Demonstration of Earthquake Evacuation Drill Demonstration of Fire Drill	

### Text Books

1. Savindra Singh, Jeetendra Singh, Disaster management, Pravalika Publications, Allahabad, 2016
2. Alexander David, Introduction in Confronting Catastrophe, Oxford University Press, 2000.
3. Kapur, Anu & others, Disasters in India Studies of grim reality, Rawat Publishers, Jaipur, 2005.
4. Mukta Girdhar, Natural Disasters, Amy publication, Dariyaganj, New Delhi, 2019.

### Reference Books

1. Andharia J. Vulnerability in Disaster Discourse, JTCDM, Tata Institute of Social Sciences Working Paper No. 8, 2008.
2. Govt. of India: Disaster Management Act 2005, Government of India, New Delhi.