

# Vidyasagar University

## Curriculum for B. Sc. (General) in Disaster Management

[Choice Based Credit System]

### Semester-VI

Course	Course Code	Name of the Subjects	Course Type/ Nature	Teaching Scheme in hour per week			Credit	Marks
				L	T	P		
<b>DSE-1B</b>		<b>DSE1T:</b> Disaster Risk Management in India	Core Course	4	0	0	6	75
		<b>DSE1P:</b> Practical		0	0	4		
<b>DSE-2B</b>	TBD	Other Discipline ( Any one from Discipline-2)/TBD	Core Course	5-1-0 / 4-0-4			6	75
<b>DSE-3B</b>	TBD	Other Discipline ( Any one from Discipline-3)/TBD		5-1-0 / 4-0-4			6	75
<b>SEC-4</b>		<b>SEC4T: TBD</b>	Skill Enhancement Course-4	1-1-0 / 1-0-1			2	50
<b>Semester Total</b>							<b>20</b>	<b>275</b>

**L**=Lecture, **T**=Tutorial, **P**=Practical, **DSE**= Discipline Specific Electives, **SEC**= Skill Enhancement Course, **TBD** = To be decided.

## **Semester-VI**

### **Discipline Specific Electives (DSE)**

**DSE-1B: Disaster Risk Management in India**

### **Skill Enhancement Course (SEC)**

**SEC-4: Institutional Disaster Management Structure**

**Or**

**SEC-4: Disaster Governance, Law and Implementation**

## Discipline Specific Electives (DSE)

### **DSE -1B: Disaster Risk Management in India**

**Credits 06**

### **DSE1BT: Disaster Risk Management in India**

**Credits 04**

#### **Course Contents:**

#### **Unit-I: Geographical Setup of India and Regional Hazard Risks**

- a) Regional Physiography, Geology, Climate, of India and Natural Hazards Risk Prone Areas
- b) Hazard Risk, Vulnerability and Disaster: Concepts and Relationships
- c) Measuring Hazard Risks, Vulnerability and Disasters

#### **Unit-II: Disaster Extremes in India, their impact**

- a) Regional extreme events in India: Earthquakes, Floods, Droughts, Cyclones, Tsunami, Landslides, Avalanches, Snow, Rain and Wind storms.
- b) Disaster Magnitude and impact: Case Study / Examples from recent disasters.

#### **Unit-III: Regional Patterns of Disaster Vulnerability in India**

- a) Earthquake Disaster Vulnerability Assessment - Case Study of Metropolitan and other Major Cities
- b) Flood Disaster Zonation and Vulnerability Assessment - Case Study of Brahmaputra and Ganga river systems
- c) Landslide and Avalanche Disaster Zonation and Mapping - Case Study of Himalayas and North-East Region
- d) Drought Disasters Zonation and Mapping
- e) Multi-Hazard Risk Assessment

#### **Unit-IV: Disaster Management in India**

- a) Disaster Management Act 2005
- b) Institutional and Financial Mechanism National Policy on Disaster Management,
- c) National Guidelines and Plans on Disaster Management

### **DSE1BP: Project**

**Credits 02**

#### **List of Activities**

**1. Identification of Sites:** Map Disaster prone areas, vulnerable sites, vulnerability of people (specific groups) and resources in India.

**2. Plan of Disaster Management:** Preparing plan for addressing these vulnerabilities, preparing plans in consultation with local administration.

**3. Project Presentation:** Disaster Risk Management in Indian context – case presentation.

### **Suggested Books/ Reading**

- Disaster Management in India – A Status Report. National Disaster Management Division, Ministry of Home Affairs, Govt. of India, 2004
- Sharma, Vinod K. Disaster management, NCDM, IIPA, New Delhi, 1994
- National Disaster Response Plan, NCDM, New Delhi, 2001.
- Mathur, G.C. Housing in Disaster prone areas, National Building Organization and U.N. Regional Centre. ESCAP, New Delhi, 1986
- Mishra, P.K. Transforming adversity into opportunity: experiences from Gujarat earthquake reconstruction program World congress on Natural disaster mitigation proceedings, February 2004
- Taori, K (2005) Disaster Management through Panchayati Raj, Concept, Publishing Company, New Delhi
- Dave, R.K. (2018) , Disaster Management in India : Challenges and Strategies
- Joshi, S.R., (2008) “Natural Disasters in North-East Region and its Management: An Essay”, Centre for Science Education,, North Eastern Hill University, Meghalaya
- United Nations Development Programme (UNDP), Disaster Management- Preparedness Methodology in Assam. <http://data.undp.org.in/dmweb/Article>
- Vulnerability Atlas of India, Building Materials & Technology Promotion Council, Ministry of Housing & Urban Poverty Alleviation, Government of India, New Delhi

### **Skill Enhancement Course (SEC)**

**SEC- 4: Institutional Disaster Management Structure**

**Credits 02**

**SEC4T: Institutional Disaster Management Structure**

**Credits 02**

### **Course Contents:**

#### **Unit -1: International Institutions of Disaster Management and their Roles in DM**

- a) United Nations System and its specialized agencies like UNDP, UNISDR, WHO, The World Bank, IPCC
- b) Other International Organizations like; International Federation of Red Cross and Red Crescent Societies (IFRC), Global Facility for Disaster Risk Reduction (GFDRR)

## **Unit -2: National and State Institutions of Disaster Management and their Roles in DM**

- a) National Agencies: Disaster Management Division (Ministry of Home Affairs, Govt. of India)
- b) National Disaster Management Authority (NDMA) and National Executive Committee (NEC)
- c) National Institute of Disaster Management (NIDM)
- d) National Disaster Response Force (NDRF)
- e) NPDRR
- f) Indian Red Cross Society
- g) Armed Forces, Central Para Military Forces, State Police Forces and Fire Services<sup>[1]</sup>
- h) National Civil Defence Organization and Home Guards and National Cadet Corps , National Service Schemes and Nehru Yuva Kendra Sangathan (NYKS)
- i) State Disaster Management Authority (SDMA)
- j) District Disaster Management Authority (DDMA)
- k) Local Authorities at Panchayat Level

## **Unit- 3: Other Institutions of Disaster Management and their Roles in DM**

- a) Academic Institutions
- b) Civil Society Organizations and Non-Governmental Organizations
- c) Print, Television and Mass Media
- d) Local Community

### **Suggested Books/ Reading:**

- NDMA, 2010, National Disaster Management Guidelines , Role of NGOs in Disaster Management
- Dave, R.K. (2018) , Disaster Management in India : Challenges and Strategies
- Disaster Management Handbook, Jack Pinkowski – 2008
- Disaster Management and Rehabilitation, Rajdeep Dasgupta, 2007
- Disaster Management: Text and Case Studies, D.B.N. Murthy - 2007
- Managing Disaster Risk in Emerging Economies”. Arnold, Margaret and Kreimer, Alcira (eds.)
- Disaster Management and Preparedness, Collins Larry R. and Schneid Thomas D., Taylor and Francis 2000
- Disaster Management in India – A Status Report. National Disaster Management Division, Ministry of Home Affairs, Govt. of India, 2004
- Sharma, Vinod K. Disaster management, NCDM, IIPA, New Delhi, 1994
- National Disaster Response Plan, NCDM, New Delhi, 2001.

**Or**

## **SEC-4: Disaster Governance, Law and Implementation**

**Credits 02**

### **SEC4T: Disaster Governance, Law and Implementation**

**Credits 02**

#### **Course Contents :**

**Unit- 1:** Institutional framework and federal structure of governance; the constitutional and legal framework within which decisions are taken in disaster management.

**Unit -2:** The Disaster Management Act 2005 and the institutional structures it has brought up in states and districts. Federal imperatives and allocation of responsibilities. Role and relationships of SDMA's, DDMA's to NDMA and their state government.

**Unit - 3:** Comparative Disaster Management laws and structures with some selected states in the neighbourhood and the world. A brief survey of how these institutions function, interpret and take decisions in emergency and non-emergency situations. Role of leadership and technology forecasting institutions.

**Unit - 4:** Role of the State as a public trustee: Administrative Accountability and Local Governance: The role of panchayats and customary community based institutions has a role in community resilience building and this differs from location to location. This diversity of institutional response mechanism and participatory governance strategies would be explored for fragile regions.

#### **Suggested Books/ Reading**

- Contemporary Natural and Manmade Disaster. Master of Disaster Mitigation. World Institution Building Programme Centre, 2004
- Disaster Management in India – A Status Report. National Disaster Management Division, Ministry of Home Affairs, Govt. of India, 2004
- Sharma, Vinod K. Disaster management, NCDM, IIPA, New Delhi, 1994
- National Disaster Response Plan, NCDM, New Delhi, 2001.
- Mathur, G.C. Housing in Disaster prone areas, National Building Organization and U.N. Regional Centre. ESCAP, New Delhi, 1986
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