

# Vidyasagar University

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

[Choice Based Credit System]

### Semester-V

Course	Course Code	Name of the Subjects	Course Type/ Nature	Teaching Scheme in hour per week			Credit	Marks
				L	T	P		
DSE-1A		DSE1T: Disasters and Health Management	Core Course	4	0	0	6	75
		DSE1P: Practical		0	0	4		
DSE-2A	TBD	Other Discipline ( Any one from Discipline-2)/TBD	Core Course	5-1-0 / 4-0-4			6	75
DSE-3A	TBD	Other Discipline ( Any one from Discipline-3)/TBD		5-1-0 / 4-0-4			6	75
SEC-3		SEC3T: TDB	Skill Enhancement Course-3	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-V**

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

**DSE-1A: Disasters and Health Management**

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

**SEC-3: First-Aid for Disasters**

**Or**

**SEC-3: Information Communication Technology (ICT) for Disaster Management**

## *Discipline Specific Electives (DSE)*

### **DSE -1A: Disasters and Health Management**

**Credits 06**

#### **DSE1AT: Disasters and Health Management**

**Credits 04**

#### **Course Contents:**

#### **Unit-I: Introduction to Disaster Health Management**

- Public Health issues during Disasters.
- Various definitions in Disaster Health Management (DHM).
- Planning for Disaster health management throughout the Cycle.
- Decision making and Participation.
- Access to Medical resources and supplies.
- Identification and Training of Disaster Health Volunteers.
- Disaster Health System in India- PHC, CHC, NHM.

#### **Unit-II: Phases of Disaster Health Response**

- Notification, Search and Rescue, Triage, Medical Care of Disaster Victims, Disaster Communications, Record keeping, Transportation and Evacuation.
- Recovery, Rapid Assessment of emergency Health Care needs.
- Medical Care of Mass Gatherings. Medical surge, Surge capacity.
- Risk Assessment. Self-protection contaminated area and decontaminated area.
- Medical Equipment and Supplies during Disasters.

#### **Unit-III: Disaster Hospital Planning**

- Preparing the Hospital emergency Plan- Disaster Management Committee. Centre command structure.
- Plan activation of different areas of the hospital. Disaster beds/ how to increase bed capacity in emergencies.
- Planning of public information and liaison. Planning for security.
- Logistic planning
  - i. Communications planning
  - ii. Transportation planning
  - iii. Store planning.
  - iv. Personnel planning
  - v. Financial planning

#### **Unit-IV: Disaster Medical Teams (DMT)**

- Members of the team: Advanced clinicians (nurse practitioners/physician assistants), medical officers, registered nurses, respiratory therapists, paramedics, pharmacists, pharmacy technicians, emergency medical technicians, safety specialists, logistical specialists, information technologists, communication and administrative specialists, Medical Social Workers, Hospital workers, Healthcare workers, Humanitarian aid workers, Public health workers, Health profession students, Volunteers.
- Role of different Team members and the role of Disaster Health Social Worker.

#### **DSE1AP: Disasters and Health Management**

**Credits 02**

#### **List of Practical**

**1. Field training:** Training on Disaster Medical Management

**2. Visits:** Visit to model Disaster Health System - PHC, CHC, NHM

**3. Project Presentation:** Disaster Hospital Planning – case presentation.

**4. Laboratory note book and Viva Voce:** Students will be required to maintain records of all works done in connection with the topic taught in this paper

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

- Ministry of Home Affairs. (n.d.) Guidelines for hospital emergency preparedness planning: Ground DRM Programme (2002–2008). New Delhi: Ministry of Home Affairs, Government of India.
- Nelson C, Lurie N, Wasserman J, Zakowski S. Conceptualizing and defining public health emergency preparedness. *Am J Public Health.* 2007; 97 Suppl 1: S9-11. DOI: AJP.2007.114496 [pii].
- Pathak, S. H. (1961). *Medical Social Work in India.* India: Delhi School of Social Work.
- Reilly, M. J., & Markenson, D. S. (2011). *Health care emergency management: Principles and practice.* Jones & Bartlett Publishers.
- Shoaf KI, Rottman SJ. Public health impact of disasters. *Australian Journal of Emergency Management.* 2000; 15(3): 58-63.
- Spitzer, W. J., Allen, D. K. M. (2015). *Social Work Practice in Healthcare: Advanced Approaches and Emerging Trends.* United States: SAGE Publications.

## *Skill Enhancement Course (SEC)*

**SEC- 3: First-Aid for Disasters**

**Credits 02**

**SEC3T: First-Aid for Disasters**

**Credits 01**

### **Course Contents:**

#### **Unit -1: Introduction to First-Aid**

Concept. Aims of first-aid. Significance. Types and Levels. Principles of first-aid. Emergency Medical Responder and Roles

#### **Unit -2: First-Aid Assessment and Supplies**

Recognizing Emergencies. Assessing the situation. Disaster Kit. Home First Aid Kit, Travel First Aid Kit. Organizing Shelter. Check-lists. Safety Tools. DRAB and ABCD of first-aid.

#### **Unit- 3: Disaster specific safety guidelines**

Landslides, Earthquakes, Fires, Floods, Hazardous Materials. Epidemics. Others. Life-stock safety and Management during disasters.

#### **Unit -4: Emergencies and What to do**

The ABC Bites and Stings. Breathing. Bleeding. Fractures. Burns. Choking. Cold and Heat related illnesses. Convulsions and Seizures. Cardiac Problems. Dizziness and Fainting. Eye and Ear injuries. Head, neck and spine injuries. Infectious diseases. Poison. Shock. Stroke and Tooth injuries. Drowning, Dizziness and Fainting.

#### **Unit - 5: Tools and Techniques for First Aid**

Concept of Basic Life Support. Bandaging, Slings and Binders. Checking Pulse. Cardiopulmonary resuscitation (CPR). Clearing Air-way obstruction. Using the Fire extinguisher.

**SEC3P: First-Aid for Disasters**

**Credits 01**

### **Practical:**

1. Breathing and circulation, Life-saving practices
2. Removing clothing, Casualty handling,
3. Preparation of First aid Toolbox,
4. Dressings, Cold compresses,
5. Principles of bandaging,
6. Roller bandages, Tubular gauze bandages, square knots, hand and foot cover
7. Arm sling, Elevation sling, improvised slings

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

- The authorized manual of St. John Ambulance, St. Andrew's Ambulance association and the British red cross society, First Aid manual, 9th edition, Dorling Kindersley, London
- Clement Text book on First Aid & Emergency Nursing, First edition, JP brothers, 2012
- American Red Cross. (2008). A Family Guide to First Aid and Emergency Preparedness. United States: Staywell.
- Staywell. (2012). Responding to Emergencies: Comprehensive First Aid/ CPR/ AED. United States: American National Red Cross.

**Or**

### **SEC-3: Information Communication Technology (ICT) for Disaster Management Credits 02**

#### **SEC3T: Information Communication Technology (ICT) for Disaster Management Credits 02**

#### **Course Contents:**

##### **Unit- 1: Information Communication Technology (ICT)**

Concept and Relevance of ICT; Data Communications and Computer Networks- Elements of Communication Systems, Data transmission modes, speed, media; Switching techniques, Routing Techniques, Network topologies, Network Types, Communication protocols, wireless networks, Internet, multimedia

##### **Unit -2: Information Processing**

Relevance of Information to Decision Making, Source and Types of Information, Quality of Information, Value of information, Data Collection methods, Management Information Systems, Decision-Making Concept - Models of Decision Making.

##### **Unit - 3: Advanced Information Communication Technology**

Tsunami and Cyclone Early Warning System, Forest Resource Information System, GIS, Remote Sensing, Digital Image Processing, emergency communication System, Bluetooth and Wireless communication, Satellite Phones and Radio.

##### **Unit - 4: Disaster Management Information Sources**

Forecasting & Warning- Indian meteorological department, tsunami warning Centre, pacific disaster Centre, central water commission, INCOES; Resources: UNISDR, USAID, SAHANA, Red Cross, Indian disaster resource network

### **Suggested Books/ Reading**

- Jain, Raj K. (2000). Fundamentals of Programming. New Delhi: S. Chand & Company Ltd.
- Navathe, Elmasri and, Addison-Wesley (2019). Fundamentals of Data base Systems. New Delhi: S. Chand & Company LTD.
- Nayak, Shailesh and Sisi Zlatanova (2008). Remote Sensing and GIS Technologies for Monitoring and Prediction of Disasters. New York: Springer.
- Rao, Peddada Jagadeeswara, Kakani Nageswara Rao and Sumiko Kubo, P. K. Sinha

(2019).

- Dekker, Sidney (2019). Foundations of Safety Science: A Century of Understanding Accidents and Disasters. New York: Routledge

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