

## DISASTER MANAGEMENT

II Semester: MBA								
Course Code	Category	Hours / Week			Credits	Maximum Marks		
CMBC24	Elective	L	T	P	C	CIA	SEE	Total
		3	-	-	3	30	70	100
<b>Contact Classes: 45</b>		<b>Tutorial Classes: Nil</b>		<b>Practical Classes: Nil</b>			<b>Total Classes: 45</b>	
<p><b>I. COURSE OVERVIEW:</b>            This course aims to have the knowledge on the impacts of disasters, minimizing losses of life and property. Also gives the information about space-based applications of various phases in the disaster management cycle: prevention, mitigation, preparedness, response, rehabilitation, reconstruction and recovery.</p> <p><b>II. COURSE OBJECTIVES:</b>  <b>The students will try to learn:</b></p> <ol style="list-style-type: none"> <li>I. Disaster management types, trends, causes, consequences and control of disasters</li> <li>II. Disaster management theories (cycle, phases) and the framework.</li> <li>III. International disaster management experience to identify gaps and best practices.</li> <li>IV. Disaster risk management institutional processes in India.</li> <li>V. The applications of science and technology to disaster management.</li> </ol> <p><b>COURSE OUTCOMES:</b>  <b>After successful completion of the course, students will be able to:</b></p> <p><b>CO 1:</b> Outline the disaster management concepts to reduce the risks and consequences.</p> <p><b>CO 2:</b> Formulate and compare hazards, disasters, and associated natural phenomena to develop humanitarian assistance before and after disasters.</p> <p><b>CO 3:</b> Compare and conduct research on various aspects of emergencies and disaster events to demonstrate scientific limitations.</p> <p><b>CO 4:</b> Combine the concepts of society's role and people's responsibility for disaster communication to get an immediate response and recovery.</p> <p><b>CO 5:</b> Develop and analyze the concept of disaster communication for experiences of the international disaster management efforts.</p> <p><b>CO 6:</b> Demonstrate the critical analysis of international disaster management experience and identify gaps and best practices.</p> <p><b>CO 7:</b> Recognize and distinguish useful information from WHO, state and national bodies regarding the mechanisms in fund management systems.</p> <p><b>CO 8:</b> Narrate the disaster risk management institutional processes in India that are in place to regulate disaster management activities.</p> <p><b>CO 9:</b> Relate to the role of science and technology in disaster management to prevent and reduce the risk involved in natural disasters.</p> <p><b>CO 10:</b> Demonstrate the DM study, including data search and analysis using S&amp;T institutions in India, and display the study's measures and outcomes.</p> <p><b>IV. SYLLABUS:</b></p>								
<b>UNIT-I</b>	<b>TYPES, TRENDS, CAUSES, CONSEQUENCES AND CONTROL OF DISASTERS</b>						<b>Classes: 08</b>	
Geological Disasters (earthquakes, landslides, tsunami, mining); Hydro-Meteorological Disasters (floods, cyclones, lightning, thunder-storms, hail storms, avalanches, droughts, cold and heat waves); Biological Disasters (epidemics, pest attacks, forest fire); Technological Disasters (chemical, industrial, radiological, nuclear) and Manmade Disasters (building collapse, rural and urban fire, road and rail accidents, nuclear, radiological, chemicals and biological disasters); Global Disaster Trends – Emerging Risks of Disasters – Climate Change and Urban Disasters.								

<b>UNIT-II</b>	<b>DISASTER MANAGEMENT CYCLE AND FRAMEWORK</b>	<b>Classes:10</b>
Disaster Management Cycle – Paradigm Shift in Disaster Management Pre-Disaster – Risk Assessment and Analysis, Risk Mapping, Prevention and Mitigation of Disasters, Early Warning System; Preparedness, Capacity Development; Awareness During Disaster – Evacuation – Disaster Communication – Search and Rescue – Emergency Operation Centre – Incident Command System – Relief and Rehabilitation – Post-disaster – Damage and Needs Assessment, Restoration of Critical Infrastructure – Early Recovery – Reconstruction and Redevelopment.		
<b>UNIT-III</b>	<b>INTERNATIONAL DISASTER MANAGEMENT EXPERIENCE</b>	<b>Classes:09</b>
International Disaster Management Experience: International disaster management efforts during Spanish Flu (1918), Tsunamis (2004) and COVID (2019). The Cuban Model of Hurricane Risk Management. Japan’s Emergency Management and response System. Bangladesh multi-hazard risk reduction Model. Critical analysis of International disaster management experience- identifying gaps and best practices.		
<b>UNIT-IV</b>	<b>DISASTER ADMINISTRATION</b>	<b>Classes:10</b>
Disaster Administration: United Nations and its Disaster Management Mechanism UNDP, UNDRR, WHO. Disaster Administration in India: Disaster Management Authority at National, State and District levels; Allied governmental bodies, institutions and mechanisms/resources for Disaster Management; State and National Disaster Mitigation Funds. Gaps in Disaster Policy and Administration		
<b>UNIT-V</b>	<b>APPLICATIONS OF SCIENCE AND TECHNOLOGY FOR DISASTER MANAGEMENT</b>	<b>Classes:08</b>
Geo-informatics in Disaster Management (RS, GIS, GPS and RS) Disaster Communication System (Early Warning and Its Dissemination) Land Use Planning and Development Regulations Disaster Safe Designs and Constructions Structural and Non Structural Mitigation of Disasters S&T Institutions for Disaster Management in India.		
<b>Text Books:</b>		
<ol style="list-style-type: none"> <li>1. Rivera, Jason D., ed. “Disaster and Emergency Management Methods: Social Science Approaches in Application”, Routledge, 8<sup>th</sup>Edition, 2021.</li> <li>2. Kapoor, Mukesh. “Disaster management”, Saurabh Publishing House, 6<sup>th</sup>Edition, 2020.</li> <li>3. Elvas, Luís B., "Disaster Management in Smart Cities", Smart Cities, 4<sup>th</sup>Edition, 2021.</li> <li>4. D.R Khullar, "Environment &amp; Disaster Management", 3<sup>rd</sup>Edition, 2021.</li> <li>5. Brebbia, C. A., ed. “Disaster Management”, WIT Press, 6<sup>th</sup>Edition, 2018.</li> <li>6. Frumkin, Howard, ed. “Environmental health: from global to local”, John Wiley &amp; Sons, 11<sup>th</sup>Edition, 2016.</li> <li>7. Encyclopedia of Disasters – Environmental Catastrophes and Human Tragedies, Vol. 1 &amp; 2, Angus M. Gunn, Greenwood Press, 2008.</li> <li>8. Encyclopedia of disaster management, Vol I, II and III Disaster management policy and administration, S L Goyal, Deep &amp; Deep, New Delhi, 2006.</li> </ol>		
<b>Reference Books:</b>		
<ol style="list-style-type: none"> <li>1. Manual on natural disaster management in India, M C Gupta, NIDM, New Delhi</li> <li>2. R K Bhandani, “An overview on natural &amp; man-made disasters and their reduction”, CSIR, New Delhi</li> <li>3. World Disasters Report, International Federation of Red Cross and Red Crescent, Switzerland, 2009.</li> <li>4. Coppola D P, “Introduction to International Disaster Management”, Elsevier Science (B/H), London, 2007.</li> <li>5. Disasters in India Studies of grim reality, Anu Kapur &amp; others, 2005, 283 pages, Rawat Publishers, Jaipur</li> <li>6. Management of Natural Disasters in developing countries, H.N. Srivastava &amp; G.D. Gupta, Daya Publishers, Delhi, 2006, 201 pages</li> <li>7. H. K. Gupta (Ed) Disaster Management, Universities Press, 2<sup>nd</sup>Edition, 2003.</li> <li>8. R. B. Singh (Ed) Disaster Management, Rawat Publication, 1<sup>st</sup>Edition, 2000.</li> </ol>		

**Web References:**

1. [http://ndmindia.nic.in/disaster\\_management\\_in\\_india\\_09052017.pdf](http://ndmindia.nic.in/disaster_management_in_india_09052017.pdf)
2. <http://epdfiles.engr.wisc.edu/dmcweb/AA02AimandScopeofDisasterManagement.pdf>

**E-Text Books:**

1. [https://www.iare.ac.in/sites/default/files/lecture\\_notes/dm%20notes.pdf](https://www.iare.ac.in/sites/default/files/lecture_notes/dm%20notes.pdf)
2. <http://www.cbse.nic.in/natural%20hazards%20&%20disaster%20management.pdf>
3. <http://196.223.158.148/bitstream/handle/123456789/619/Improving%20Disaster%20Management.pdf?sequence=1&isAllowed=y>
4. [https://books.google.co.in/books?hl=en&lr=&id=s6oxEraqWWwC&oi=fnd&pg=PP1&dq=disaster+MANAGEMENT&ots=tTefaw793r&sig=2SXMNkQHRieKKXn4dLFRg0ljkQY&redir\\_esc=y#v=onepage&q=disaster%20MANAGEMENT&f=false](https://books.google.co.in/books?hl=en&lr=&id=s6oxEraqWWwC&oi=fnd&pg=PP1&dq=disaster+MANAGEMENT&ots=tTefaw793r&sig=2SXMNkQHRieKKXn4dLFRg0ljkQY&redir_esc=y#v=onepage&q=disaster%20MANAGEMENT&f=false)
5. <https://www.mdpi.com/2624-6511/4/2/42>