



## FACULTY OF ENGINEERING & TECHNOLOGY

### First Year Master of Engineering

#### Semester I / II

**Course Code:** 102301202

**Course Title:** Disaster Management

**Type of Course:** Audit Course

**Course Objectives:** To demonstrate a critical understanding of key concepts in disaster risk reduction and humanitarian response. Critically evaluate disaster risk reduction and humanitarian response policy and practice from multiple perspectives. Develop an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations. Critically understand the strengths and weaknesses of disaster management approaches, planning and programming in different countries, particularly their home country or the countries they work in

#### Teaching & Examination Scheme:

Contact hours per week			Course Credits	Examination Marks (Maximum / Passing)				
Lecture	Tutorial	Practical		Internal		External		Total
				Theory	J/V/P*	Theory	J/V/P*	
2	0	0	0	NA	NA	50 / 25	NA	50 / 25

\* J: Jury; V: Viva; P: Practical

#### Detailed Syllabus:

Sr.	Contents	Hours
1	Introduction Disaster: Definition, Factors And Significance; Difference Between Hazard And Disaster; Natural And Manmade Disasters: Difference, Nature, Types And Magnitude.	3
2	<b>Repercussions Of Disasters And Hazards:</b> 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.	3
3	<b>Disaster Prone Areas In India</b> 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.	4
4	<b>Disaster Preparedness And Management</b> 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.	4



<b>5</b>	<b>Risk Assessment</b> 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.	<b>4</b>
<b>6</b>	<b>Disaster Mitigation</b> Meaning, Concept And Strategies Of Disaster Mitigation, Emerging Trends In Mitigation. Structural Mitigation And Non-Structural Mitigation, Programs Of Disaster Mitigation In India.	<b>4</b>

### Suggested Specification table with Marks (Theory) (Revised Bloom’s Taxonomy):

Distribution of Theory Marks						R: Remembering; U: Understanding; A: Application, N: Analyze; E: Evaluate; C: Create
R	U	A	N	E	C	
100	NA	NA	NA	NA	NA	

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

### Reference Books:

<b>1</b>	R. Nishith, Singh AK, “Disaster Management in India: Perspectives, issues and strategies “New Royal book Company.
<b>2</b>	Sahni, PardeepEt.Al. (Eds.),” Disaster Mitigation Experiences And Reflections”, Prentice Hall Of India, New Delhi.
<b>3</b>	Goel S. L., Disaster Administration And Management Text And Case Studies”, Deep &Deep Publication Pvt. Ltd., New Delhi.

### Course Outcomes (CO):

Sr.	Course Outcome Statements	%weightage
<b>CO-1</b>	Monitoring and evaluation plan for disaster response.	<b>25</b>
<b>CO-2</b>	Preparedness plans for public health response.	<b>25</b>
<b>CO-3</b>	Safety tips before during and after earthquake, cyclone, floods and fire accidents.	<b>30</b>
<b>CO-4</b>	Disaster management structure in India.	<b>20</b>

### Curriculum Revision:

Version:	<b>1</b>
Drafted on (Month-Year):	Apr-20
Last Reviewed on (Month-Year):	Jul-20
Next Review on (Month-Year):	Apr-22