

### Course Outline Template

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|---|--|---|---------------------------------|
| Course title  | Disaster Management  |   |                                 |
| Course Code   | SDM - 1101   | No of credit  | 4                               |
| Department  | B. Tech  | Branch  | Civil, CSE, Mechanical & Mining |
| Director SDM  | A. Suchitra  | Contact no  | 9777375362                      |
| Email   | <a href="mailto:a.suchitra@cutm.ac.in">a.suchitra@cutm.ac.in</a><br><a href="mailto:suchitra.achary@gmail.com">suchitra.achary@gmail.com</a> |   |                                 |
| Course Coordinator  | Jaya Krishna Behera  |   | 9438676742,<br>8249585859       |
| Email   | <a href="mailto:jkbehera@cutm.ac.in">jkbehera@cutm.ac.in</a><br><a href="mailto:jaya75behera@gmail.com">jaya75behera@gmail.com</a>           |   |                                 |
| Faculty   | Mr. Jaya Krishna Behera<br>A. Suchitra   |   |                                 |
| Learning hours  | 40 hours   | Course type   | Elective                        |
| <b>COURSE DESCRIPTION</b>   |  |   |                                 |
| <p>This course is intended to provide fundamental understanding of different aspects of Disaster Management. It will expose the students to the concept and functions of Disaster Management and to build competencies of Disaster Management professionals and development practitioners for effective supporting environment as put by the government in legislative manner. It would also provide basic knowledge, skills pertaining to Planning, Organizing and Decision-making process for Disaster Risk Reduction</p>   |  |   |                                 |
| <b>COURSE OBJECTIVES</b>  |  |   |                                 |
| <p>The aim is to impart knowledge on</p> <ol style="list-style-type: none"> <li>1. To provide students an exposure to disasters, their significance, types &amp; Comprehensive understanding on the concurrence of Disasters and its management.</li> <li>2. To ensure that students begin to understand the relationship between vulnerability, disasters, disaster prevention, risk reduction and the basic understanding of the research methodology for risk reduction measures.</li> <li>3. Equipped with knowledge, concepts, and principles, skills pertaining to Planning, Organizing, Decision-making and Problem solving methods for Disaster Management.</li> <li>4. The course also facilitates students to globally share their views, ideas and information pertaining to Disaster Management on a common platform.</li> <li>5. To develop rudimentary ability to respond to their surroundings with potential disaster response in areas where they live, with due sensitivity.</li> </ol> |  |   |                                 |
| <b>GUIDELINES ON GRADING AND STANDARDS OF ASSESSMENT</b>  |  |   |                                 |
| <p>A continuous evaluation system will be adopted to evaluate the students. There will be an individual and group assignments, presentations, mid-sem. exam and end-sem. Exams.</p>   |  |   |                                 |
| <b>COURSE CONTENT</b>   |  |   |                                 |
| <b>Module - 1</b>   |  |   |                                 |
| <b>UNIT I – Introduction to Disaster Management (2hrs)</b>  |  |   |                                 |
| <b>Session</b>  | <b>Topic</b>   | <b>Coverage</b>   | <b>Reading/Reference</b>        |
| <b>2hrs</b>   | Disaster & Emergencies : Concept & Fundamentals of Disaster Management   | <ul style="list-style-type: none"> <li>• Introduction/ Brain storming/ Group formation</li> <li>• History of Disasters</li> <li>• Concepts and Definitions</li> </ul> |                                 |

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|--|--|--|--|
|  |  | <ul style="list-style-type: none"> <li>Hazard, Risk, Vulnerability, Capacity, Disaster &amp; Equations of Disaster Management</li> </ul>   |  |
|  |  | <ul style="list-style-type: none"> <li>Types &amp; Classification of Disasters</li> <li>Factors responsible for disasters like flood, cyclone and Earthquake.</li> </ul>   |  |
| <b>UNIT II – Effect and Impact of Disaster ( 6 Hrs )</b> |  |  |  |
| 2hrs   | Effect and Impacts of Disasters (Group work)   | <ul style="list-style-type: none"> <li>Disasters Impact – Social, Economic, Political, Environmental, Health, Psychosocial, etc.</li> <li>Differential impacts- in terms of Caste, Class, Gender, Age, Location, Disability.</li> </ul>  | Disaster Mgmt. and India: Responding Internally and Simultaneously in Neighboring Countries Kailash Gupta, BE (Elec.), MBA(IIMA) |
| 2 hrs  | Disaster vs Development  | <ul style="list-style-type: none"> <li>Disaster is the causes of destruction</li> <li>Disaster leads to development</li> </ul>   |  |
| 2 hrs  | Global warming and climate change  | <ul style="list-style-type: none"> <li>Concept and understanding of global warming and climate change</li> <li>Causes and factors</li> <li>Remedial measures</li> </ul>  |  |
| <b>Module – II</b>                                       |  | •  |  |
| <b>UNIT III – Disaster Risk Management - (9 hours)</b>   |  |  |  |
| 8 hrs  | Community Managed Disaster Risk Reduction And Village Contingency Plan (Group work)<br><br>Role of Task force/ ODRAF/ NDRF for DRR at community level. | <ul style="list-style-type: none"> <li>Hazard analysis and assessment</li> <li>Vulnerability analysis</li> <li>Resource capability assessment</li> <li>Mapping &amp; Seasonality Calendar</li> <li>Structural and Non Structural assessment.</li> <li>Task forces with various roles for DRR.</li> </ul> | CBDRM for Local Authorities: PARTICIPANT'S WORKBOOK – adpc <a href="http://www.adpc.net">www.adpc.net</a>                        |
| 2 hours  | Rapid Need Assessment Pre and Post Disaster (Group work and Practical demo)  | <ul style="list-style-type: none"> <li>Meaning and Importance</li> <li>Rapid Need Assessment in emergency and its significance</li> <li>Process and Methods</li> </ul>   |  |
| 3 hrs  | Stress Management  | <ul style="list-style-type: none"> <li>Causes and consequences of Stress</li> <li>What are the best ways to handle pressure</li> <li>Psychosocial Support</li> </ul>   |  |
| <b>UNIT IV – Disaster Management (14 hrs)</b>            |  |  |  |
| 2 hrs  | Disaster Management Cycle  | <ul style="list-style-type: none"> <li>Disaster Management Cycle</li> <li>Phases of Disasters</li> <li>Prevention, Mitigation</li> </ul>   |  |

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|---|--|--|--|
|   |  | Preparedness, Response, Reconstruction   | Warning, Rehabilitation,   |
| 4 hrs   | <b>Fire safety (Practical)</b>   | <ul style="list-style-type: none"> <li>• Practical</li> </ul>  |  |
| 4 hours   | First Aid & Driving Learning (Theory and Practical )                       | <ul style="list-style-type: none"> <li>• ABCD of First Aid</li> <li>• Dressing and Bandages Practical session</li> <li>• Emerging need and importance of learning driving</li> </ul>   |  |
| 4hrs  | Building Rescue operation or Demonstration of ODRAF/NDRAF rescue materials | <ul style="list-style-type: none"> <li>• Practical</li> </ul>  |  |
| <b>Module – III</b>   |  | •  |  |
| <b>UNIT V – Humanitarian Charter and Minimum Standards in Humanitarian Response (4 hrs)</b> |  |  |  |
| 2hrs  | Sphere Standards (Group Work)  | <ul style="list-style-type: none"> <li>• The Humanitarian Charter</li> <li>• Protection Principles</li> <li>• Core Standards</li> </ul>  |  |
| 2hrs  | Restoring Life Line Services (WASH) (Group work)                           | <ul style="list-style-type: none"> <li>• Water , Sanitation &amp; Hygiene Promotion</li> <li>• Food Security &amp; Nutrition</li> <li>• Health Services</li> <li>• Health Services</li> <li>• Shelter and Settlement</li> </ul>  | The Sphere Project , Humanitarian Charter and Minimum Standards In Humanitarian Response |
| <b>UNIT VI – Disaster Management Projects –( 6 hours)</b>                                   |  |  |  |
| 6hrs  | Seminars / Workshop  | <ul style="list-style-type: none"> <li>• Adapting Climate Change</li> <li>• Disaster Resilience Structures and Buildings</li> <li>• IT in Disaster Management</li> <li>• Inter-relationship between Disasters and Development</li> <li>• Urban Disaster</li> <li>• Rain Water Harvesting</li> <li>• Inclusions – Disability, Aged, Social etc</li> </ul> |  |
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|   |  | •  |  |

- Team of 10 – 15 members would be formed
- Each Team would take up a project work in one of the topics above or related topics with prior approval : 2 Weeks
- Each Team would organize one Seminar / Workshop during the session



| <b>COURSE LEARNING OUTCOMES</b>   |   |               |  |
|---|---|---------------|--|
| <b>Course Learning Outcomes</b>   |   |               |  |
| 1. Develop perspective understanding and its Management in pre, during and post phases of Disasters.<br>2. Equipped with potential knowledge, concepts & skills for effective Planning on Disaster Management and Risk Reduction measures.<br>3. Application of the concepts in real life scenario. |   |               |  |
| <b>COURSE TEACHING AND LEARNING ACTIVITIES</b>  |   |               |  |
| <b>Course Teaching and Learning Activities</b>  |   |               |  |
| <ul style="list-style-type: none"> <li>• Classroom interactions (Lecturers)</li> <li>• Simulated exercises</li> <li>• Role playing</li> <li>• Case analysis</li> </ul>  |   |               |  |
| <b>COURSE ASSESSMENT METHODS</b>  |   |               |  |
| <b>Assessment Method</b>  | <b>Description</b>  | <b>Weight</b> | <b>Aligned Course Learning Outcomes.</b> |
| Attendance/ class participation   | Involvement in the class works  | 10%           |  |
| Simulated Exercises, Field Training and Practices   | Field exposure and curiosity in hands on practices.                                 | 20%           |  |
| Assignment & project Presentations  | Assignment & project Presentation will be on group & individual basis               | 20%           |  |
| Mid Term  | Question pattern will have real life case study analysis, Short and Long questions. | 10%           |  |
| End Term  | Question will be set by External Examiners  | 40%           |  |