

|                              |                                                                       |
|------------------------------|-----------------------------------------------------------------------|
| <b>Branch Name:</b>          | MANAGEMENT                                                            |
| <b>Program Code:</b>         | MS301                                                                 |
| <b>Course Name:</b>          | Disaster Management                                                   |
| <b>Course Code:</b>          | 2MS3010691T                                                           |
| <b>Pre-requisite Course:</b> | Fundamentals of Business management, Computer Application in Business |

**Course Objectives:**

1. To provide basic conceptual understanding of disasters.
2. To understand approaches of Disaster Management.
3. To build skills to respond to disaster.

**Teaching and Examination Scheme:**

| Teaching Scheme<br>(Hours per week) |                 |                  |        | Evaluation Scheme (Marks) |                          |                          |                          |                  |
|-------------------------------------|-----------------|------------------|--------|---------------------------|--------------------------|--------------------------|--------------------------|------------------|
| Lecture<br>(L)                      | Tutorial<br>(T) | Practical<br>(P) | Credit | Theory (Marks)            |                          | Practical (Marks)        |                          | Total<br>(Marks) |
|                                     |                 |                  |        | University<br>Assessment  | Continuous<br>Assessment | University<br>Assessment | Continuous<br>Assessment |                  |
| 4                                   | -               | -                | -      | -                         | -                        | -                        | -                        | -                |

**Subject Contents:**

| Sr No. | Topic                                                                                                                                                                                                                                                                                                                                                                                                                  | Total<br>Hours | Weightage<br>(%) |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|
| 1      | <b>Fundamentals of Disaster Management</b><br>Concepts and definitions of Disaster Management, Disaster Classification: Natural and Man-made disasters, Disaster Impacts (social, economic, political, environmental, health, psychosocial, etc.), Basic principles of Disaster Management, Disaster Management cycle.<br>Global trends in disasters, Urban Disasters, Pandemics, complex Emergencies, Climate change. | 10             | 20               |
| 2      | Disaster Management and Risk Assessment<br>Pre-Disaster Management Activities: Hazard and Vulnerability analysis, Emergency Contingency planning, Risk Reduction<br>Post-Disaster Management Activities: Development Planning, types of plans, Decision making models and processes, Search, Rescue, Evacuation and Logistic Management                                                                                | 10             | 20               |
| 3      | Disaster Mitigation Response and Preparedness:<br>Roles of Information, Education, Communication and Training in DM, Role and Responsibilities of Central, State, District and Local Administration for effective disaster mitigation.<br>Emerging Trends in Disaster Mitigation and Management, Significance of Team and Coordination for Disaster Mitigation. DM Policy and Legislation.                             | 10             | 20               |
| 4      | Disaster Risk Assessment Techniques:<br>Risk identification, Early warning system, Application of Remote Sensing (RS), Geographic Information System (GIS), and Global Positioning System (GPS) in Risk Assessment.                                                                                                                                                                                                    | 10             | 20               |

|   |                                                                                                                                                                                                                                                                                 |   |    |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----|
| 5 | Contemporary disaster management cases like<br>1. Turkey-Syria Earthquake (February 2023)<br>2. Hurricane Ian in the United States (September 2022)<br>3. Cyclone Amphan in India and Bangladesh (May 2020)<br>4. COVID-19 Pandemic (2020–2022)<br>5. Mumbai Floods (July 2021) | 8 | 20 |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----|

#### Text Books:

| Sr. No. | Books                                                                                              |
|---------|----------------------------------------------------------------------------------------------------|
| 1       | Disaster Management - Dr. Mrinalini Pandey, Wiley India Pvt. Ltd.                                  |
| 2       | Natural Disaster - R.K. Sharma & G. Sharma, APH Publishing Corporation                             |
| 3       | Disaster Mitigation Experiences and Reflections - Pardeep Sahni, Prentice Hall of India, New Delhi |

#### Reference Books:

| Sr. No. | Books                                                                                                                             |
|---------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1       | Natural Hazards - Edwards Bryant, Cambridge University Press                                                                      |
| 2       | Space Technology for Disaster management: A Remote Sensing & GIS Perspective - U.K.Roy, Indian Institute of Remote Sensing (NRSA) |

#### Course Learning Outcomes (CLO): On completion of this course, the students will be able to:

| CLO  | Description                                                                                                                                               | Bloom's Taxonomy Level |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| CLO1 | Understand the fundamental concepts, definitions, classifications, and impacts of disasters on society, economy, and the environment.                     | Remember               |
| CLO2 | Analyze disaster management cycles, risk assessment techniques, and pre- and post-disaster management strategies.                                         | Analyze                |
| CLO3 | Evaluate disaster mitigation and preparedness strategies, including the roles of government bodies, policies, and emerging trends in disaster management. | Evaluate               |
| CLO4 | Apply risk identification, early warning systems, and geospatial technologies like Remote Sensing (RS), GIS, and GPS for disaster risk assessment.        | Apply                  |
| CLO5 | Develop effective decision-making skills for search, rescue, evacuation, and logistic management during disaster scenarios.                               | Create                 |
| CLO6 | Examine real-world disaster case studies and assess lessons learned for improving future disaster preparedness and response.                              | Evaluate               |

#### Mapping of CLOs with Pos & PSOs

| Course Learning Outcomes | Program Outcomes (POs) |     |     |     |     |     |     |     | Program Specific Outcomes (PSOs) |      |
|--------------------------|------------------------|-----|-----|-----|-----|-----|-----|-----|----------------------------------|------|
|                          | PO1                    | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PSO1                             | PSO2 |
| CLO1                     | H                      |     |     |     |     |     | H   |     | H                                |      |
| CLO2                     |                        | H   | H   |     |     |     |     |     | H                                |      |
| CLO3                     |                        |     |     |     | H   | H   |     |     |                                  | H    |
| CLO4                     |                        | H   | M   |     |     |     |     |     | M                                |      |
| CLO5                     |                        |     | H   | H   |     |     |     |     |                                  | H    |
| CLO6                     |                        |     |     |     |     |     | H   | H   | H                                |      |

H: High, M: Medium, L: Low

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