Gyanmanjari Innovative University

Course Syllabus
Gyanmanjari Institute Of Technology
Semester-1

**Subject:** Disaster Management – METXX11501

**Type of course:** Audit Course

**Prerequisite: -** NA

**Rationale:** This subject is conceptual applications of principles of management to mitigate various disasters.

## Teaching and Examination Scheme:

| Teaching Scheme | | | Credits | Examination Marks | | | | | Total Marks |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Theory Marks | | Practical Marks | | CA | |
| CI | T | P | C | ESE | MSE | V | P | ALA | |
| 2 | 0 | 0 | 2 | 60 | 00 | 0 | 0 | 30 | 100 |

*Legends: CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; ESE - End Semester Examination; MSE- Mid Semester Examination; V – Viva; CA - Continuous Assessment; ALA- Active Learning Activities.*

## Continuous Assessment:

| Sr. No | Active Learning Activities | Marks |
|---|---|---|
| 1. | Prepare Poster Presentation of Natural Disaster on Indian and upload on GMIU Web Portal. | 10 |
| 2. | Explain various Vulnerability in Gujarat and how to overcome with it. And upload on GMIU Web Portal. | 10 |
| 3. | Prepare Poster Presentation on Disaster Managements and upload on GMIU Web Portal. | 10 |
| **Total** | | **30** |

## Course Content:

| Sr. No | Course content | Hrs | % Weightage |
|---|---|---|---|
| 1 | **Introduction**<br>Introduction Disasters, Introduction the Concepts and definitions of Disaster, Hazard, Vulnerability, Risk, Capacity– Disaster and Development, and disaster management | 4 | 10 |
| 2 | **Types and Effects of Disaster**<br>Types, Trends, Causes, Consequences and Control of Disasters, 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. | 8 | 20 |
| 3 | **Disaster Management Cycle and Framework**<br>Disaster Management Cycle and Framework ,Disaster Management Cycle, Paradigm Shift in Disaster Management Pre-Disaster, Risk Assessment and Analysis, Risk Mapping, zonation and Micro zonation, Prevention and Mitigation of Disasters, Earl 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, IDNDR, Yokohama Strategy, Hyogo Framework of Action | 8 | 20 |
| 4 | **Disaster Management in India**<br>Disaster Management in India Disaster Profile of India Mega Disasters of India and Lessons Learnt Disaster Management Act 2005, Institutional and Financial Mechanism National Policy on Disaster Management, National Guidelines and Plans on Disaster Management; Role of Government (local, state and national), Non-Government and Inter-Governmental Agencies | 10 | 20 |
| 5 | **Applications of Science and Technology for Disaster Management and mitigation**<br>Applications of Science and Technology for Disaster Management & Mitigation Geo-informatics in Disaster Management (RS, GIS and GPS) Disaster Communication System (Early Warning and It Dissemination), Land Use Planning and Development Regulations Disaster Safe Designs and Constructions Structural and Non- | 12 | 30 |

| | | | |
|---|---|---|---|
| | Structural Mitigation of Disasters S&T Institutions for Disaster Management in India | | |
| | **Total** | | |

## Suggested Specification table with Marks (Theory):60

| Distribution of Theory Marks (Revised Bloom's Taxonomy) | | | | | | |
|---|---|---|---|---|---|---|
| Level | Remembrance (R) | Understanding (U) | Application (A) | Analyze (N) | Evaluate (E) | Create (C) |
| Weightage | 40% | 40% | 10% | NA | NA | 10% |

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.

## Course Outcome:

| After learning the course the students should be able to: | |
|---|---|
| CO1 | Learn to demonstrate a critical understanding of key concepts in disaster risk reduction and humanitarian response |
| CO2 | Critically evaluate disaster risk reduction and humanitarian response policy and practice from multiple perspectives. |
| CO3 | Develop an understanding of standards of humanitarian response and practical relevance in specific types of disasters and conflict situations |
| CO4 | 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. |

## Reference Books:

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