



**Mahatma Gandhi University
Kottayam**

Programme	Bachelor in Business Administration (Honours)					
Course Name	Disaster Management					
Type of Course	VAC					
Course Code	MG3VACBBA200					
Course Level	NA					
Course Summary	<p>In our rapidly evolving 21st-century world, challenges emerge in diverse forms, transcending borders and intertwining economic, societal, and environmental realms. These challenges profoundly affect vulnerable communities, magnifying their susceptibility to climate-related shocks and disasters. As we navigate through these complexities, it becomes increasingly evident that aligning strategies with global Sustainable Development Goals (SDGs) across various geographical scales is paramount. This alignment incorporates perspectives of environmental sustainability, climate adaptation, and disaster resilience. In light of these considerations, this course aims to equip students with the knowledge and skills necessary to address and mitigate the impacts of disasters in a holistic manner.</p> <p>Course Objectives:</p> <ol style="list-style-type: none">1. Articulate the critical role of disaster management in reducing risks and enhancing resilience2. Identify and describe key institutional frameworks and processes in disaster management.3. Conduct risk assessments and develop disaster management plans for specific scenarios					
Semester	3	Credits			2	Total Hours
Course Details	Learning Approach	Lecture	Tutorial	Practical	Others	
		0	0	2	0	
Pre-requisites, if any	NA					

COURSE OUTCOMES (CO)

CO No.	Expected Course Outcome	Learning Domains *	PO No:
1	Provide understanding of the concepts related to disaster.	U	10
2	Highlight the importance and role of disaster management.	A	6
3	Enhance awareness of institutional processes and management strategies to mitigate the impacts of disasters.	An	8
4	Identify different types of emergencies and describe basic steps to manage and reduce their impact.	U	6

COURSE CONTENT

Module	Course description	Hrs	CO No.
1. Concepts and Terminologies		15 Hrs	
1.1	Understanding key concepts of Hazards, disasters; Disaster types and causes (Geophysical, Hydrological, Meteorological, Biological and Atmospheric; Human-made).	6	CO1
1.2	Global trends in disasters – Impacts (Physical, Social, Economic, Political, Environmental and Psychosocial).	4	CO1
1.3	Defining Vulnerability (Physical Vulnerability; Economic Vulnerability; Social Vulnerability).	5	CO1
2. Key concepts of Disaster Management Cycle		15 Hrs	
2.1	Key concepts of Disaster Management Cycle Components of disaster management cycle (Phases: Response and recovery, Risk assessment, Mitigation and prevention, Preparedness planning, Prediction and warning).	8	CO2
	Disaster risk reduction (DRR), Community based disaster risk reduction.	7	CO2

3. Initiatives at national and international level			8 Hrs
3.1	Disaster Risk Management in India and at international level: Related policies, plans, programmes and legislation; International strategy for disaster reduction and other initiatives.	8	CO3
4. Emergency Management			7Hrs
4	Explosion and accidents (Industrial, Nuclear, Transport and Mining) - Spill (Oil and Hazardous material); Threats (Bomb and terrorist attacks) - Stampede and conflicts.	7	CO4
5 Practical Assessments mentioned in the syllabus		15	CO1, CO2, CO3 & CO4

Note to the instructor: Compulsory Training and Demonstration Workshops (at least two workshops) be organized in association with the NIDM, NDRF, NCDC, Param Military, Fire Brigade, CISF, local administration etc.

References

Readings (Latest Editions):

1. Sharma, S.C. , Disaster Management, Khanna Book Publishing.
2. Clements, B. W.,: Disasters and Public Health: Planning and Response, Elsevier Inc.
3. Dunkan, K., and Brebbia, C. A., (Eds.) : Disaster Management and Human Health Risk: Reducing Risk, Improving Outcomes, WIT Press, UK.
4. Singh, R. B. (ed.), Natural Hazards and Disaster Management: Vulnerability and Mitigation, Rawat Publications, New Delhi.
5. Ramkumar, Mu, Geological Hazards: Causes, Consequences and Methods of Containment, New India Publishing Agency, New Delhi.
6. Modh, S. Managing Natural Disaster: Hydrological, Marine and Geological Disasters, Macmillan, Delhi.
7. Carter, N. Disaster Management: A Disaster Management Handbook. Asian Development Bank, Manila.
8. Govt. of India Vulnerability Atlas of India. BMTPC, New Delhi.
9. Govt. of India Disaster Management in India. Ministry of Home Affairs, New Delhi.
10. Matthews, J.A., Natural Hazards and Environmental Change, Bill McGuire, Ian Mason.

E-Resources

<http://www.ndma.gov.in/en/>
<http://nidm.gov.in/>
<https://www.unisdr.org/>

<http://www.emdat.be>
<https://www.weather.gov/safety/>
<https://www.preventionweb.net/risk/vulnerability>

Practical Component

CO1:

1.1 Disaster Classification and Impact Analysis Report Group Activity

Select one disaster event from each of the following categories:

1. Geophysical (e.g., earthquake, volcano)
2. Hydrological (e.g., flood, landslide)
3. Meteorological (e.g., cyclone, drought)
4. Biological (e.g., epidemic)
5. Human-made (e.g., industrial accident, war)

Briefly describe the event and its cause. Explain its impacts under the following headings:

- ✓ Physical
- ✓ Social
- ✓ Economic
- ✓ Political
- ✓ Environmental
- ✓ Psychosocial

Include relevant data, maps, or photographs if available. A 5–7 page written report or a digital presentation (PowerPoint or video) with references.

1.2 Vulnerability Assessment of a Local Area

1. Identify and analyse physical, economic, and social vulnerabilities in a real-world setting.
2. Choose a local area (e.g., your village/town, school campus, or neighbourhood).
3. Conduct a field survey or secondary research to gather data.
4. Identify vulnerabilities under the following headings:
 - Physical Vulnerability (e.g., unsafe buildings, flood-prone zones)
 - Economic Vulnerability (e.g., income sources, employment risk)
 - Social Vulnerability (e.g., age, gender, disability, marginalization)
5. Present your findings in a Vulnerability Profile report or chart.
6. Suggest at least three risk reduction measures based on the findings.

CO2:

2.1 Create a Community Disaster Preparedness Plan

A preparedness plan booklet or poster with visuals, checklists, and action steps for the below

1. Select a local community or create a hypothetical one.
2. Identify the most likely hazards it faces.
3. Design a Preparedness Plan that includes:

- Early warning systems
- Evacuation routes
- Roles and responsibilities of community members
- Emergency contact information
- First-aid and emergency kits

2.2 Risk and Vulnerability Assessment Survey

Students have to conduct a field-based or online survey to assess disaster risk and community vulnerabilities and prepare a survey report with data tables, graphs, and analysis.

1. Prepare a questionnaire with sections for:
 - Local hazards
 - Physical and social vulnerabilities
 - Previous disaster experiences
 - Awareness and preparedness level
2. Survey at least 10 households or institutions.
3. Analyse the responses and summarize:
 - Risk levels
 - Gaps in preparedness
 - Suggested risk-reduction strategies

CO3:

3.1 Analysis of Emergency Response Agencies and Their Functions

Conduct a study and document the roles and responsibilities of any three of the following agencies along with a detailed report or power presentation.

- NDRF (National Disaster Response Force)
- NIDM (National Institute of Disaster Management)
- CISF (Central Industrial Security Force)
- NCDC (National Centre for Disease Control)

Present how these agencies contribute during various types of emergencies (industrial, biological, terror threats, etc.).

CO4

4.1 Case Study Analysis

Select any two real-life incidents from the categories listed (e.g., Bhopal Gas Tragedy, Chernobyl Nuclear Disaster, Amritsar Train Accident, Fukushima Nuclear Disaster, 2008 Mumbai Terror Attacks, etc.).

Prepare a comparative case study report covering:

- Background of the incident
- Causes and sequence of events
- Emergency response and rescue operations
- Environmental and human impact
- 5–7 page report and presentation with references, photographs, and charts.
- Preventive measures and lessons learned

ASSESSMENT

Continuous Comprehensive Assessment(CCA) - Maximum Marks: 15

Sl. NO	Component	Activity	Max. Marks
1	Impact Analysis Report Group Activity / Vulnerability Assessment of a Local Area / Community Disaster Preparedness Plan / Risk and Vulnerability Assessment Survey / Analysis of Emergency Response Agencies and Their Functions /	Involvement of students for the practical component	10
2	Case Study	Assessments specified by the teacher (Case study related to disaster management) (Assessment methods defined in the syllabus may also be used)	5
Total Marks			15

End Semester Assessment(ESE) Maximum Marks: 35

Sl. NO	Component	Activity	Max. Marks
1	Practical Examination	Presentation of all Practical Component (Group wise)	35
Total Marks			35