

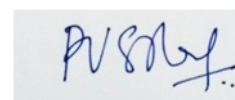
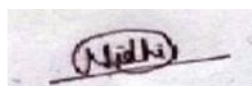
**CHOICE BASED CREDIT SYSTEM (CBCS) PROGRAM
IN
DISASTER MANAGEMENT**

For Academic Session 2021 -22

**Programme Structure
&
Curriculum & Scheme of Examination
2021**

AMITY UNIVERSITY MADHYA PRADESH

GWALIOR



INTRODUCTION TO DISASTERS

Course Code: CBC 101

Credit Unit - 3

Course & Objective:

1. To understand the natural disasters categorised as hydrological, wind-related, geophysical, and climatic.
2. To understand man-made disasters that includes in this course are nuclear disasters, industrial accidents, environmental disasters, fires, rail accidents, road accidents, air accidents and sea accidents.
3. To aware about causes, impacts, preparedness, and response pertaining to these disasters
4. To understand the do's and don'ts relating to these disasters.

Course Content:

MODULE-I

Understanding Disasters- Meaning, nature, characteristics and types of Disasters, Causes and effects, Disaster: A Global View, Disaster Profile of India, Introduction to the Disaster Management cycle.

Geological and Mountain Area Disasters – Earthquakes: Introduction, General Characteristics, Mechanism, Causes and Effects, Prediction, Seismic Zones, Seismic Waves, Vulnerability, Damage Potential – Magnitude and Intensity Volcanic Eruption, Landslides, Snow Avalanches, Heat and Cold Waves

MODULE-II

Wind and Water Related Natural Disaster -Floods: General Characteristics, Causes, Geomorphology and Floods, Flood Forecasting, River and Coastal Floods, Flash Floods, Lake Outburst, Risks Environmental Planning, Flood Control and Management. Droughts: Droughts, Causes, Vulnerability, Types, Famines, Deserts and Desertification. Cyclones and Tsunamis: Structure and Nature of Cyclones & Tsunamis, Characteristics, Case Studies.

MODULE -III

Man Made Disasters - Understanding Man-Made Disasters Nuclear Disasters, Chemical Disasters, Biological Disasters, Building Fire, Coal Fire, Forest Fire, Oil Fire, Road Accidents, Rail Accidents, Air Accidents, Sea Accidents. Case Studies

Suggested Readings:

1. Bryant Edwards (2005): Natural Hazards, Cambridge University Press, U.K.
2. Carter, W. Nick, 1991: Disaster Management, Asian Development Bank, Manila.
3. Central Water Commission, 1987, Flood Atlas of India, CWC, New Delhi.
4. Central Water Commission, 1989, Manual of Flood Forecasting, New Delhi.
5. Government of India, 1997, Vulnerability Atlas of India, New Delhi.
6. Sahni, Pardeep et.al. (eds.) 2002, Disaster Mitigation Experiences and Reflections, Prentice Hall of India, New Delhi.

Examination Scheme

Component	CT	Attendance	Assingment/Project/Seminar/Quiz	EE
Weightage (%)	15	5	10	70

RISK ASSESSMENT AND VULNERABILITY ANALYSIS

Course Code: CBC 201

Credit Unit - 3

Course & Objective:

1. To deals with the meaning, observation, perception, and identification of risk and vulnerability factors associated with disasters.
2. To discuss the factors contributing to vulnerability such as poverty, displacement, etc.
3. To understand the various preventive strategies, such as, policies pertaining to emergency assistance, social development and infrastructure development.

Course Content:

MODULE – I

Hazard, Risk and Vulnerability: Concept and Relationship, Understanding Risk: Concepts and Elements, Disaster Risk Reduction, Risk Analysis Techniques, People Participation in Risk Assessment, Incident, off site and on-site emergency, levels of emergency. Early warning system – generation, significance and functioning.

MODULE – II

Vulnerability: Concept and Parameters vulnerability Analysis, Observation and Perception of Vulnerability, Vulnerability Identification Socio-Economic Factors of Vulnerability, Vulnerability of Shanty Town, Experience of vulnerability in India, Strategies for Survival

MODULE – III

Role of Developmental Planning for disaster Management, Resource Analysis and Mobilisation, Population Growth, Infrastructure and Vulnerability Reduction, Social Infrastructure for Vulnerability Reduction, National Guidelines on various disasters

Suggested Readings:

1. White, Gilbert F. and J. Eugene Hass, 1975, Assessment of Research on Natural Hazards, Cambridge, the MIT Press, MA.
2. NOAA Coastal Services Center, “Linking People Information and Technology, Risk and Vulnerability Assessment Tool
3. www.nidmindia.nic.in
4. <http://www.cambridge.org>.

Examination Scheme

Component	CT	Attendance	Assingment/Project/Seminar/Quiz	EE
Weightage (%)	15	5	10	70

DISASTER REGULATIONS & MANAGEMENT

Course Code: CBC 301

Credit Unit - 3

Course & Objective:

1. To understand the various rules and regulations for disaster management.
2. To discuss the disaster mitigation process.
3. To understand the various preventive strategies, such as, policies pertaining to emergency assistance, social development and infrastructure development.

Course Content:

MODULE – I

The Environment (Protection) Act, 1986 (amended 1991), The Environment (Protection) Rules, 1986 (amended 2004), The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (amended, 1994 and 2004), The Hazardous Wastes (Management and Handling) Rules, 1989 (amended 2000 and 2003), The Environment Prior Clearance Notification, 2006. The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, Bio-medical Wastes (Management and Handling) Rules. 1989,

MODULE – II

The Factories Act, 1948 (amended 1987) ,State Factory Rules, The Inflammable Substances Act, 1952, The Motor Vehicles Act, 1988 (amended 2001), The Central Motor Vehicles Rules, 1989 (amended 2005), The Public Liability Insurance Rules, 1991 (amended 1992), The Public Liability Insurance Rules, 1991 (amended 1993), The Petroleum Act, 1934, The Petroleum Rules, 2002, The Insecticide Rules, 1968 (amended 2000), The Insecticide Rules, 1971 (amended 1999), The National Environment Tribunal Act, 1995, The Explosives Act, 1884 (amended till 1983),The Gas Cylinder Rules, 2004,The Static and Mobile Pressure Vessels (Unfired) Rules, 1981 (amended 2002),The Explosives Rules, 1983 (amended 2002), Disaster Management Act 2005.

MODULE – III

Disaster Mitigation: Disaster Mitigation: meaning and concept, Disaster Mitigation Strategies, Emerging Trends in Disaster Mitigation, Mitigation management, Role of Team and Coordination

Technologies for Disaster Management: Role of IT in Disaster Preparedness, Remote Sensing, GIS and GPS, Use and Application of Emerging Technologies, Application of Modern, Technologies for the Emergency communication, Application and use of ICST for different disasters.

Suggested Readings:

Disaster Administration and Management, Text & Case studies- SL Goel-Deep and Deep Publications

Natural Hazards and Disaster Management: Vulnerability and Mitigation - R B Singh- Rawat Publications

- Disaster Management- G.K Ghosh - A.P.H. Publishing Corporation
- Disaster management – S.K.Singh, S.C. Kundu, Shobha Singh A – 119, William Publications, New Delhi.
- Disaster management - H.K. Gupta, 2003
- Disaster Management – Vinod K Sharma- IIPA, New Delhi, 1995

Examination Scheme

Component	CT	Attendance	Assingment/Project/Seminar/Quiz	EE
Weightage (%)	15	5	10	70

DISASTER PREPAREDNESS AND MANAGEMENT

Course Code: CBC 401

Credit Unit - 4

Course & Objective:

1. To understand the disaster and its preparedness.
2. To discuss about international and national agencies involved in disaster management.
3. To assist local administration by providing expertise in the field of Disaster Management

MODULE-I

Introduction to disaster Preparedness & Management - Disaster Management: Prevention, Preparedness and Mitigation, Disaster Preparedness: Concept & Nature, Disaster Preparedness Plan, Disaster Preparedness for People and Infrastructure, Community based Disaster Preparedness Plan.

Disaster Management Cycle: Preparedness, prevention, mitigation, relief response, etc. Information Technology: Role in Disaster Preparedness with Special Reference to Geographical Information System, Use and Application of Emerging Technologies in Disaster Preparedness Disaster Mitigation, Disaster Mitigation Strategies, Emerging Trends in Disaster Mitigation

MODULE -II

International Agencies and their role for Disaster Management

International Agencies: United Nations and its Specialized Agencies Like UNDP, FAO, WHO, AEC (Atomic Energy Commission), United Nations Disaster Management Cell, New Delhi, International Federation of Red Cross and Red Crescent Societies (IFRC) and National Red Cross / Red Crescent Societies.

MODULE -III

National Agencies and their Role for Disaster Management - Disaster Management Cell (Ministry of Home Affairs, Govt. of India), National Institute of Disaster Management, Indian Red Cross Society, Planning Commission, National Civil Defence Organization, Bharat Scouts and Guides Military and Para-Military Forces, Corporate Bodies etc. State and District Level Agencies: Disaster Management Cells at State Level and District Level, District Magistrate Office, Role of Information, Education, Communication & Training

Suggested Readings:

1. Bryant Edwards (2005): Natural Hazards, Cambridge University Press, U.K.
2. Roy, P.S. (2000): Space Technology for Disaster management: A Remote Sensing & GIS Perspective, Indian Institute of Remote Sensing (NRSA) Dehradun.
3. Sharma, R.K. & Sharma, G. (2005) (ed) Natural Disaster, APH Publishing, Corporation, New Delhi.
4. www.GIS. Development.net
5. www.iirs.nrsa.org
6. <http://quake.usgs.gov>

Examination Scheme

Component	CT	Attendance	Assingment/Project/Seminar/Quiz	EE
Weightage (%)	15	5	10	70

DISASTER RESPONSE AND MANAGEMENT

Course Code: CBC 501

Credit Unit - 4

Course & Objective:

The basic objectives of the course are-

1. To train students on various aspects of Disaster response and management.
2. To understand the human behaviour at the time of disaster.
3. To assist local administration by providing expertise in the field of Disaster Management

Module I

Response Essential Components

Disaster Response Plan, Communication, Participation and Activation of Emergency Preparedness Plans, Search, Rescue, Evacuation and other logistic management, Needs and Damage Assessment; Types and Technique

Disaster Response: Central, State, District and Local Administration. Armed Forces in Disaster Response: Role and Responsibility, Disaster Response: Police and Other organisations, Role of Multiple stakeholders in Disaster Response

Module II

Human Behaviour and Response Management

Psychological Response and Psychological Rehabilitation, Trauma and Stress Management, Rumour and Panic Management, Medical and Health Response to Different Disasters, Role of Information and Communication Technology in Response Management

Module III

Relief Measures

Minimum Standards of Relief, Relief Management essential components, Funding Relief- short term and long term, Disaster Site Management, Recovery.

Medical first aid, life saving techniques, Golden time, Search & Rescue equipments- Search & Rescue equipments for different disasters, its use, procurement, maintenance

Search & Rescue Teams- Warning teams, evacuation teams, medical support, logistic management.

Suggested Readings:

1. White, G.F, 1974, Natural Hazards: Local, National, Global, Oxford University Press, New York.
2. Taori, K (2005) Disaster Management through Panchayati Raj, Concept Publishing Company, New Delhi.
3. www.nidmindia.nic.in

Examination Scheme

Component	CT	Attendance	Assingment/Project/Seminar/Quiz	EE
Weightage (%)	15	5	10	70

PROJECT WORK

Course Code: CBC 601

Credit Unit - 1

Course & Objective:

The basic objectives of the course are-

1. To train students on various aspects of Disaster Management
2. To create safe and sustainable environment by community strengthening capacity building
3. To assist local administration by providing expertise in the field of Disaster Management

Students are supposed to make a project report based on field work or on the basis of analysis on past disaster

Examination Scheme

Component	Project	Presentation	Viva-voce	Total
Weightage (%)	40	30	30	100

