National Occupational Standards

Fundamentals of Disaster Management

Unit Code: ICE/MEP/N0101

Version: 1.0

NSQF Level: 2.5

INTEGRATED COUNCIL FOR ENTREPRENEURSHIP AND SKILLING || 533-R
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Description

This course provides trainees with a foundational understanding of disaster management concepts and practices. It aims to equip learners with the knowledge and skills to identify hazards, understand risks and vulnerabilities, comprehend the impact of climate change on disasters and participate effectively in preparedness and safety measures at the individual, school and community levels. The course emphasizes practical application through case studies, activities and mock drills.

Scope

The scope covers the following :

- Introduction to Disaster Management
- Classification of Disasters and Early Warning Systems
- Risk, Vulnerability and Climate Change Impact on Disasters
- Disaster Prone Areas in India and Risk Evaluation
- Institutional Framework and Preparedness Strategies for Disaster Management
- Safety Measures and the Role of Mock Drills in Disaster Preparedness

Elements and Performance Criteria

Introduction to Disaster Management

To be competent, the user/individual on the job must be able to:

PC1. define and distinguish between disasters, hazards and vulnerabilities in the context of disaster management

PC2. explain key factors that lead to disasters and analyze their socio-environmental significance

PC3. differentiate between natural and man-made disasters based on origin, frequency and impact

PC4. describe the components of the disaster management cycle: mitigation, preparedness, response and recovery

PC5. illustrate the consequences of disasters on human lives, ecosystems, infrastructure and economies

PC6. explain the interdependence between sustainable development and disaster risk reduction

Classification of Disasters and Early Warning Systems

To be competent, the user/individual on the job must be able to:

PC7. classify different types of natural disasters and their characteristics

PC8. classify various natural disasters such as earthquakes, volcanism, cyclones, tsunamis, floods, droughts, famines, landslides, avalanches and outline their characteristics

PC9. identify and categorize different types of man-made disasters, such as industrial accidents, oil spills, fires and nuclear events (war)

PC10. recognize the role of national and global agencies in early warning systems, including meteorological, seismological and oceanographic institutions

PC11. explain the use of technologies like satellite imagery, gis and remote sensing in disaster forecasting and alerts

PC12. assess the effectiveness of early warning mechanisms in managing specific disasters like cyclones, floods and tsunamis

PC13. explain community alert mechanisms and the role of media in disseminating disaster warnings

Risk, Vulnerability and Climate Change Impact on Disasters

To be competent, the user/individual on the job must be able to:

PC14. define hazard, risk, vulnerability and capacity in disaster management

PC15. identify economic and environmental repercussions of disasters, including health hazards and ecosystem loss

PC16. conduct basic vulnerability assessments using socio-economic, geographic and climatic indicators

PC17. explain the influence of climate change on the frequency and intensity of disasters

PC18. discuss climate change indicators such as sea-level rise and extreme weather in urban and rural contexts

PC19. suggest greenhouse gas mitigation strategies and sustainable development approaches for disaster reduction

PC20. analyze international frameworks and climate treaties related to disaster risk reduction, such as the SENDAI framework

Disaster Prone Areas in India and Risk Evaluation

To be competent, the user/individual on the job must be able to:

PC21. locate disaster-prone zones in India, including seismic, flood, drought, cyclone and landslide regions

PC22. describe tools and techniques used in risk and hazard assessment (e.g., GIS, Remote Sensing)

PC23. conduct community-level risk assessments with a focus on local participation and indigenous knowledge

PC24. analyze national and global disaster scenarios and cooperation mechanisms like UNDRR

PC25. outline evacuation strategies and survival techniques applicable during different disasters

Institutional Framework and Preparedness Strategies for Disaster Management

To be competent, the user/individual on the job must be able to:

PC26. describe the role and Government structure frameworks of disaster management authorities (NDMA, NDRF, SDMA, DDMA)

PC27. identify the composition and function of emergency response teams

PC28. explain the significance of state and local disaster management plans

PC29. discuss the role of community-based disaster preparedness and capacity building

PC30. develop an emergency response plan suitable for different types of disasters

PC31. list the essential emergency kits and supplies required for disaster survival

PC32. demonstrate basic life-saving techniques and first aid protocols

PC33. conduct hazard mapping and risk analysis for emergency planning

PC34. frame emergency medical response guidelines and first aid measures

PC35. assist in site vulnerability mapping to identify high-risk zones as a DRR Community activity

PC36. organize and conduct First Aid and CPR training as a DRR community activity

PC37. facilitate discussions on the institution's Disaster Management Plan (DMP) and suggest improvements as a DRR community activity

Safety Measures and the Role of Mock Drills in Disaster Preparedness

To be competent, the user/individual on the job must be able to:

PC38. describe structural mitigation strategies, such as earthquake-resistant infrastructure and flood control systems
PC39. explain non-structural approaches, including land-use regulation and awareness campaigns
PC40. discuss innovative mitigation strategies like green infrastructure and nature-based solutions
PC41. outline major government programs promoting disaster mitigation (e.g., PM Gati Shakti)
PC42. identify and apply personal and structural safety measures during fire, flood and earthquake events
PC43. define mock drills and explain their value in emergency preparedness and minimizing panic
PC44. differentiate between types of mock drills and outline how they are implemented in various settings
PC45. describe regulatory guidelines for conducting mock drills in schools, offices and public spaces
PC46. evaluate the outcomes of mock drills and recommend improvements through feedback mechanisms
PC47. train students on crowd management and emergency communication in a DRR community setting
PC48. develop a DRR community emergency response team to assist in campus safety
PC49. lead tree plantation drives and promote waste segregation and water conservation projects as part of DRR community initiatives

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. definition, types and classifications of disasters
KU2. disaster management cycle and its significance
KU3. role of international organizations like UN, WHO and Red Cross in disaster relief
KU4. National Disaster Management Authorities and policies
KU5. Community-Based Disaster Risk Reduction (CBDRR)
KU6. climate change and its impact on disaster frequency and intensity
KU7. structural vs. non-structural disaster mitigation measures
KU8. role of media and communication in disaster awareness
KU9. technological advancements in disaster management
KU10. psychological impact of disasters and trauma care
KU11. ethics and humanitarian principles in disaster management
KU12. methods for evaluating safety initiatives
KU13. sustainable development and disaster resilience
KU14. practical application of First Aid and CPR and its importance in emergency response
KU15. process of campus vulnerability mapping and its contribution to local planning
KU16. procedures and purpose of organizing and conducting mock drills
KU17. principles of crowd management and emergency communication
KU18. connection between sustainable practices (e.g., tree plantation, waste segregation) and long-term disaster risk reduction
KU19. structure and function of a DRR community emergency response team

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. communication and coordination during emergencies
GS2. leadership and decision-making in crisis situations
GS3. teamwork and collaboration in disaster response teams
GS4. problem-solving and adaptability under stress
GS5. data collection and report writing for disaster assessments
GS6. use of technology and digital tools in disaster management
GS7. critical thinking for evaluating disaster response effectiveness
GS8. community engagement and mobilization skills
GS9. risk assessment and strategic planning
GS10. emotional intelligence and stress management in crisis handling

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Introduction to Disaster Management	5	10	-	1
PC1. define and distinguish between disasters, hazards and vulnerabilities in the context of disaster management	-	-	-	-
PC2. explain key factors that lead to disasters and analyze their socio-environmental significance	-	-	-	-
PC3. differentiate between natural and man-made disasters based on origin, frequency and impact	-	-	-	-
PC4. describe the components of the disaster management cycle: mitigation, preparedness, response and recovery	-	-	-	-
PC5. illustrate the consequences of disasters on human lives, ecosystems, infrastructure and economies	-	-	-	-
PC6. explain the interdependence between sustainable development and disaster risk reduction	-	-	-	-
Classification of Disasters and Early Warning Systems	5	10	-	1
PC7. classify different types of natural disasters and their characteristics	-	-	-	-
PC8. classify various natural disasters such as earthquakes, volcanism, cyclones, tsunamis, floods, droughts, famines, landslides, avalanches and outline their characteristics	-	-	-	-
PC9. identify and categorize different types of man-made disasters, such as industrial accidents, oil spills, fires and nuclear events (war)	-	-	-	-
PC10. recognize the role of national and global agencies in early warning systems, including meteorological, seismological and oceanographic institutions	-	-	-	-
PC11. explain the use of technologies like satellite imagery, gis and remote sensing in disaster forecasting and alerts	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. assess the effectiveness of early warning mechanisms in managing specific disasters like cyclones, floods and tsunamis	-	-	-	-
PC13. explain community alert mechanisms and the role of media in disseminating disaster warnings	-	-	-	-
Risk, Vulnerability and Climate Change Impact on Disasters	5	10	-	2
PC14. define hazard, risk, vulnerability and capacity in disaster management	-	-	-	-
PC15. identify economic and environmental repercussions of disasters, including health hazards and ecosystem loss	-	-	-	-
PC16. conduct basic vulnerability assessments using socio-economic, geographic and climatic indicators	-	-	-	-
PC17. explain the influence of climate change on the frequency and intensity of disasters	-	-	-	-
PC18. discuss climate change indicators such as sea-level rise and extreme weather in urban and rural contexts	-	-	-	-
PC19. suggest greenhouse gas mitigation strategies and sustainable development approaches for disaster reduction	-	-	-	-
PC20. analyze international frameworks and climate treaties related to disaster risk reduction, such as the SENDAI framework	-	-	-	-
Disaster Prone Areas in India and Risk Evaluation	5	10	-	2
PC21. locate disaster-prone zones in India, including seismic, flood, drought, cyclone and landslide regions	-	-	-	-
PC22. describe tools and techniques used in risk and hazard assessment (e.g., GIS, Remote Sensing)	-	-	-	-
PC23. conduct community-level risk assessments with a focus on local participation and indigenous knowledge	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC24. analyze national and global disaster scenarios and cooperation mechanisms like UNDRR	-	-	-	-
PC25. outline evacuation strategies and survival techniques applicable during different disasters	-	-	-	-
Institutional Framework and Preparedness Strategies for Disaster Management	5	10	-	2
PC26. describe the role and Government structure frameworks of disaster management authorities (NDMA, NDRF, SDMA, DDMA)	-	-	-	-
PC27. identify the composition and function of emergency response teams	-	-	-	-
PC28. explain the significance of state and local disaster management plans	-	-	-	-
PC29. discuss the role of community-based disaster preparedness and capacity building	-	-	-	-
PC30. develop an emergency response plan suitable for different types of disasters	-	-	-	-
PC31. list the essential emergency kits and supplies required for disaster survival	-	-	-	-
PC32. demonstrate basic life-saving techniques and first aid protocols	-	-	-	-
PC33. conduct hazard mapping and risk analysis for emergency planning	-	-	-	-
PC34. frame emergency medical response guidelines and first aid measures	-	-	-	-
PC35. assist in site vulnerability mapping to identify high-risk zones as a DRR Community activity	-	-	-	-
PC36. organize and conduct First Aid and CPR training as a DRR community activity	-	-	-	-
PC37. facilitate discussions on the institution's Disaster Management Plan (DMP) and suggest improvements as a DRR community activity	-	-	-	-
Safety Measures and the Role of Mock Drills in Disaster Preparedness	5	10	-	2

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC38. describe structural mitigation strategies, such as earthquake-resistant infrastructure and flood control systems	-	-	-	-
PC39. explain non-structural approaches, including land-use regulation and awareness campaigns	-	-	-	-
PC40. discuss innovative mitigation strategies like green infrastructure and nature-based solutions	-	-	-	-
PC41. outline major government programs promoting disaster mitigation (e.g., PM Gati Shakti)	-	-	-	-
PC42. identify and apply personal and structural safety measures during fire, flood and earthquake events	-	-	-	-
PC43. define mock drills and explain their value in emergency preparedness and minimizing panic	-	-	-	-
PC44. differentiate between types of mock drills and outline how they are implemented in various settings	-	-	-	-
PC45. describe regulatory guidelines for conducting mock drills in schools, offices and public spaces	-	-	-	-
PC46. evaluate the outcomes of mock drills and recommend improvements through feedback mechanisms	-	-	-	-
PC47. train students on crowd management and emergency communication in a DRR community setting	-	-	-	-
PC48. develop a DRR community emergency response team to assist in campus safety	-	-	-	-
PC49. lead tree plantation drives and promote waste segregation and water conservation projects as part of DRR community initiatives	-	-	-	-
NOS Total	**30**	**60**	**-**	**10**

National Occupational Standards (NOS) Parameters

NOS Code	ICE/MEP/N0101
NOS Name	Fundamentals of Disaster Management
Sector	Management
Sub-Sector	Education, Training and Research
Occupation	Safety and Preparedness Education
NSQF Level	2.5
Credits	2
Minimum Job Entry Age	18
Minimum Educational Qualification & Experience	8th Grade pass and pursuing continuous schooling in regular school
Version	1.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2028
NSQC Clearance Date	07/10/2025
Reference code on NQR	NG-2.5-ERT-046362025-V1-ICES
NQR Version	1.0
CCN Category	1
Remarks	Min. Job Entry Age is as per Govt. Norms