

Syllabus for Add on course in Disaster Management (ADM) For Academic Session 2021-22

Course Objective:

1. The course has been prepared with a goal to provide a general concept on natural disasters caused by nature beyond human control as well as the disaster management emphasizing Preparedness, Response, Rehabilitation and Recovery, and Application of GIS in it.
2. Looking at the intensity and frequency of natural disasters especially in Odishan context, the add-on course on disaster management is innovative, skill and employment oriented to attract students from different branches of science and humanities.

Duration: 6 weeks Total Credits: 4

Course No.	Course Title	Credits
ADM-01	Introduction to Disaster Management	1
ADM-02	Principles and Practices in Disaster management	2
ADM-03	Geographical Information System and IT in Disaster Management	1

Unit-1

Hazard, Risk, Vulnerability, Disaster, types of disasters, Meaning, Nature, Importance, Dimensions and Scope of Disaster Management; Hydrological Disasters - Flood, Flash flood, Drought, cloud burst; Geological Disasters- Earthquakes, Tsunamis, Landslides, Avalanches, Volcanic eruptions, Mudflow; Wind related- Cyclone, Storm, Storm surge, Tidal waves, Heat and cold Waves

Climatic Change, Global warming, Sea Level rise

Unit-2

Principles and Practices in Disaster management, concepts of Disaster management, Pre-and post-disaster management, Real time management, rehabilitation and long term disaster management

Prediction system, warning system, preparedness, evacuation, Rescue and relief operation, rehabilitation and reconstruction, community disaster management, resilience

Unit-3

Definition of GIS, Concept of Space and Time, Spatial data, Map Projection and Datum, GIS Functionalities for end user / system (Data Acquisition, Data Input, Data Management, Data Analysis, Data Modeling and Data Output); Remote Sensing Application in Disaster Management, Communication System, Wireless Communication, Bluetooth Wireless Technology, HAM Radio, GPS Application in Emergency Communication.