

Course Code	Course Name	L-T-P-Credits	Year of Introduction
CE369	DISASTER MANAGEMENT	3-0-0-3	2016

**Prerequisite:** NIL

**Course objectives:**

- To provide an overview of the common hazards and their dynamics
- To inculcate the basic concepts of disaster management

**Syllabus :**

Fundamental concepts of hazards and disasters: Relationship between disasters and development, implications. Introduction to key concepts and terminology of hazard, vulnerability, exposure, risk, crisis, emergencies, Disasters, Resilience.

Types of Natural Disasters I- Earth quakes, Landslides. Classification of Disasters and nature of Impacts.

Types of Natural Disasters II- Floods, Coastal disasters-Tidal waves, Cyclones, Tsunamis. Classification of Disasters and nature of Impacts.

Types of Anthropogenic Disasters I – Soil degradation and desertification.

Types of Anthropogenic Disasters II- Fundamental concepts of water and atmospheric pollution.

Hazard and disaster management plans for floods, cyclones, tidal waves.

**Expected Outcomes:**

The students will

- gain the general ideas about the processes involved in natural and anthropogenic disasters
- understand the concepts of disaster management and measures taken to mitigate and contain common episodes of disasters

**References :**

1. Andrew, S., "Environmental Modeling with GIS and Remote Sensing", John Willey, 2002
2. Ariyabandu, M. and Sahni P. "Disaster Risk Reduction in South Asia", Prentice-Hall (India), 2003.
3. Bell, F.G., "Geological Hazards: Their assessment, avoidance and mitigation", E & FN SPON Routledge, London. 1999
4. Bossler, J.D., "Manual of Geospatial Science and Technology", Taylor and Francis, 2001
5. David Alexander, "Natural Disasters", Research Press, New Delhi, 1993
6. Matthews, J.A., "Natural hazards and Environmental Change", Bill McGuire, Ian Mason, 2002
7. Mitigating Natural Disasters, Phenomena, Effects and options, A Manual for policy makers and planners, United Nations. New York, 1991
8. Nick Carter. W., "Disaster Management - A Disaster Manager's Handbook". Asian Development Bank, Philippines. 1991

**COURSE PLAN**

Module	Contents	Hours	Sem. Exam Marks %

<b>I</b>	Fundamental concepts of hazards and disasters: Relationship between disasters and development, implications. Introduction to key concepts and terminology of hazard, vulnerability, exposure, risk, crisis, emergencies, Disasters, Resilience.	7	15
<b>II</b>	Types of Natural Disasters I- Earth quakes, Landslides. Classification and nature of impacts.	7	15
<b>FIRST INTERNAL EXAMINATION</b>			
<b>III</b>	Types of Natural Disasters II- Floods, Coastal disasters- Cyclones, Tsunamis. Classification and nature of impacts.	7	15
<b>IV</b>	Types of Anthropogenic Disasters I- soil and soil degradation, desertification.	7	15
<b>SECOND INTERNAL EXAMINATION</b>			
<b>V</b>	Types of Anthropogenic Disasters II-Fundamental concepts of water and atmospheric pollution.	7	20
<b>VI</b>	Hazard and disaster management plans for floods, cyclones, tidal waves.	7	20
<b>END SEMESTER EXAMINATION</b>			

**QUESTION PAPER PATTERN (End semester examination)**

**Maximum Marks :100**

**Exam Duration: 3 Hrs**

Part A -Module I & II : 2 questions out of 3 questions carrying 15 marks each

Part B - Module III & IV: 2 questions out of 3 questions carrying 15 marks each

Part C - Module V & VI : 2 questions out of 3 questions carrying 20 marks each

**Note :** 1.Each part should have at least one question from each module

2.Each question can have a maximum of 4 subdivisions (a, b, c, d)