# Disaster Management

# SUBHARTI INSTITUTE OF TECHNOLOGY & ENGINEERING CIVIL ENGINEERING DEPT.

Subhartipuram, NH-58 Delhi-Haridwar Bypass Road, Meerut -250 005

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Dated: 15/09/2019

OFFICE OF HOD (Civil Engineering)
Ref Ho: - SITE/CE/DA/VA/2019/IC)

#### NOTICE

The department of CE in association with SITE is organizing the value added course named as DISASTER MANAGEMENT from 04 /10/2019 to 14/10/2019 at Subharti Institute of technology and Engineering, Swami Vivekanand Subharti University Meerut. This course will enhance the technical capability of the students. The course will be for the students of CE and will be free of cost . The course will be coordinated by Er. Dharemendra Kushwaha , Assistant Professor Department of CE SITE.

CC;

Principal

Encl;

Registration Form

Er. Abhishek Tiwari

HOD-CE



## SWAMI VIVEKANAND SUBHARTI UNIVERSITY, MEERUT

DEPARTMENT OF CIVIL ENGINEERING

#### VALUE ADDED COURSE

TITLE NAME: DISASTER MANAGEMENT

CONTACT HOUR: L: 3 T: 1

#### **Course Objective**

On completion of this Subject/Course the student shall be able to:

- 1. To create awareness amongst students to basic issues of natural and manmade disasters.
- 2. To ensure the understanding of the disaster management cycle and relationship amongst vulnerability, preparedness, prevention and mitigation.
- To invoke minimum ability and sensitivity amongst students to respond to disasters in their area of living and working.
- To develop technical prowess and to mitigate the effects of disasters by capacity building amongst engineering fraternity towards formulation and implementation of disaster management strategies.
- To relate amongst the basic approaches adopted in disaster risk reduction and institutional mechanism adopted in country towards creating resilient society.

MODULE	PARTICULAR	CONTACT HOUR
1	Natural and Man Made Disasters: Meaning and nature of natural disasters, their types and effects. Floods, drought, cyclone, earthquakes, landslides, avalanches, volcanic eruptions, Climatic change and extreme climate. Global warming, Sea level rise, ozone depletion. Nuclear disasters, chemical disasters, biological disasters, building fire, coal fire, forest fire, oil fire, Pollution and environmental degradation.	5
2	Earthquake and Cyclone: Understanding dynamics of earth's interior and plate tectonics. Causes and classification of earthquakes. Seismology and methods of earthquake measurement. Concept of seismic zonation and micro-zonation. Earthquake and associated hazards. Preparedness, mitigations and civil engineering interventions. Climatology, Cyclones and tropical cyclones, Naming and radius of cyclone, monitoring of cyclone, Categories of Cyclonic disturbances, Causes of disaster during cyclone, damage and vulnerability assessment due to cyclone.	
3	Landslide and Flood: Understanding mass wasting and movement. Causes and classification of landslides. Landslide monitoring and landslide hazard zonation. Slope stability analysis and stabilization methods. Preparedness, mitigations and civil engineering interventions. Causes and classification of floods. Preparedness, mitigations and civil engineering interventions.	

Disaster Preparedness and Mitigation: Human behavior and response. International and National Strategies for disaster reduction. National disaster management framework. Central, state, district and local administration; Armed forces, police, NDRF in disaster response, rescue and relief. Role of NGOs, community based organizations and media. Role of different engineering disciplines in preparedness, response, rescue, rehabilitation recovery, prevention and mitigation.	
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### Course Outcome

Upon successful completion of this course, it is expected that students will be able to:

- Understand genesis and causes of natural and manmade disaster within the framework of fundamental concepts of basic sciences and engineering.
- Perceive the vulnerability of their living and working places and level of preparedness within the existing setup of disaster management.
- Analyze and critically examine the vulnerability of a region and to employ adequate strategy and tools of intervention.
- Build capacity to use specialized problem solving skills, methodologies, technology and to device improved technologies for future interventions..
- 5. Setup priorities to develop coherent and adaptable disaster management plan.

#### REFERENCE BOOKS

- 1. Bryant Edwards (2005): Natural Hazards, Cambridge University Press, U.K.
- Goel, S.L. (2006): Encyclopedia of Disaster Management, Deep & Deep Publications, New Delhi.
- 3. Government of India (2009): National Disaster Management Policy, New Delhi.
- 4. Gupta etal. (2001): Manual of Natural Disaster Management, IIPA, New Delhi.
- 5. Harsh Gupta (2003): Disaster Management, Universities Press.
- Kapur, Anu (2010): Vulnerable India: A Geographical Study of Disasters, Sage Publishers, New Delhi.
- 7. Monappa, K.C. (2004): Disaster Preparedness, Akshay Public Agencies, New Delhi.
- 8. Narayan, B. (2000): Disaster Management, Asia Publishing House, New Delhi.
- Sahni, Pardeep etal (2002): Disaster Mitigation Experiences and Reflections, Prentice Hall of India, New Delhi.
- 10. Turner, B. & Andnick, F. (1997): Man Made Disasters, Betterworth Heinemann, Oxford.
- 11. Vinod K. Sharma (ed.) (2010): Disaster Management, IIPA, New Delhi.

# Additional Learning Source

- 1. https://www.ndma.gov.in
- 2. https://www.nidm.gov.in
- 3. https://www.nicee.org
- 4. http://nptel.iitk.ac.in/

# VALUE ADDED COURSE REPORT

- 1. Title Of value added: Disaster management
- Date and Place of value added course held: The value added course is held between 04/10/2019 to 14/10/2019 at Subharti institute of technology and engineering.
- 3. Name of college/Department: The value added course is provided by civil engineering department of Subharti institute of technology and engineering.
- 4. No. of Students attended :22
- 5. Summary of value added curse: The objective of this value added course is to enhance the knowledge of the students about how to manage disaster. A disaster is a serious problem occurring over a short or long period of time that causes widespread human, material, economic or environmental loss which exceeds the ability of the affected community or society to cope using its own resources. The expected outcome of this value added course is:
  - a) Understand genesis and causes of natural and manmade disaster within the framework of fundamental concepts of basic sciences and engineering
  - b) Analyze and critically examine the vulnerability of a region and to employ adequate strategy and tools of intervention.
  - c) Build capacity to use specialized problem solving skills, methodologies, technology and to device improved technologies for future interventions
  - d) Setup priorities to develop coherent and adaptable disaster management plan

#### **Uutcomes**

- Understand genesis and causes of natural and manmade disaster within the framework of fundamental concepts of basic sciences and engineering.
- Perceive the vulnerability of their living and working places and level of preparedness within the existing setup of disaster management.
- Analyze and critically examine the vulnerability of a region and to employ adequate strategy and tools of intervention.
- 4. Build capacity to use specialized problem solving skills, methodologies, technology and to device improved technologies for future interventions.



#### COURSE OBJECTIVE

- To create awareness amongst students to basic issues of natural and manmade disasters.
- To ensure the understanding of the disaster management cycle and relationship amongst vulnerability, preparedness, prevention and mitigation.
- To invoke minimum ability and sensitivity amongst students to respond to disasters in their area of living and working.

# Course Content

- Natural and Man Made Disasters
- Earthquake and Cyclone
- · Landslide and Flood
- Disaster Preparedness and Mitigation

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SUBHARTI UNIVERSITY
NH-58, Delhi-Haridwar Bypass Road
Subhartipuram, Meerut, Uttar Prodesh 250005

VALUE ADDED COURSE ON Disaster Management Organized By

Department of Civil Engineering
4th October, 2019-14th October, 2019

REGISTRATION FORM

1. Name of Participant: About

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2. Department: CEVI)

3. Year & Sem: Athxax Juth sem.

4. Phone Number:

I undertake to abide by the rules and regualtions of the competiton imposed by the organizing Department and will participate with utmost discipline for the same.

Date:

25,9:2019

Signature of Applicant