

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Pharm
SEMESTER: VII

Subject Name: Disaster Management

Subject Code: 2270017

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	Theory		Practical	
				External	Internal	External	Internal
3	0	0	3	80	20	0	0

No	Course Content	Hrs
1	Understanding Disasters Understanding the Concepts and definitions of Disaster, Hazard, Vulnerability, Risk, Capacity – Disaster and Development, and disaster management	05
2	Types, Trends, Causes, Consequences and Control of Disasters Geological Disasters (earthquakes, landslides, tsunami, mining); Hydro-Meteorological Disasters (floods, cyclones, lightning, thunder-storms, hail storms, avalanches, droughts, cold and heat waves); Biological Disasters (epidemics, pest attacks, forest fire); Technological Disasters (chemical, industrial, radiological, nuclear) and Man-made Disasters (building collapse, rural and urban fire, road and rail accidents, nuclear, radiological, chemicals and biological disasters); Global Disaster Trends – Emerging Risks of Disasters – Climate Change and Urban Disasters	13
3	Disaster Management Cycle and Framework Disaster Management Cycle – Paradigm Shift in Disaster Management Pre-Disaster – Risk Assessment and Analysis, Risk Mapping, zonation and Microzonation, Prevention and Mitigation of Disasters, Early Warning System; Preparedness, Capacity Development; Awareness During Disaster– Evacuation– Disaster Communication– Search and Rescue– Emergency Operation Centre– Incident Command System– Relief and Rehabilitation– Post-disaster– Damage and Needs Assessment, Restoration of Critical Infrastructure.	12
4	Disaster Management in India Disaster Profile of India – Mega Disasters of India and Lessons Learnt Disaster Management Act 2005 – Institutional and Financial Mechanism, National Policy on Disaster Management, National Guidelines and Plans on Disaster Management; Role of Government (local, state and national), Non-Government and Inter-Governmental Agencies	12
5	Applications of Science and Technology for Disaster Management & Mitigation Geo-informatics in Disaster Management (RS, GIS, GPS and RS) Disaster Communication System (Early Warning and Its Dissemination) S&T Institutions for Disaster Management in India	03

Reference Books:

- 1 Coppola D P, 2007. Introduction to International Disaster Management, Elsevier Science (B/H), London.
2. Manual on natural disaster management in India, M C Gupta, NIDM, New Delhi
3. An overview on natural & man-made disasters and their reduction, R K Bhandani, CSIR, New Delhi
4. World Disasters Report, 2009. International Federation of Red Cross and Red Crescent, Switzerland
5. Encyclopedia of disaster management, Vol I, II and III. Disaster management policy and administration, S L Goyal, Deep & Deep, New Delhi, 2006
6. Encyclopedia of Disasters – Environmental Catastrophes and Human Tragedies, Vol. 1 & 2, Angus M. Gunn, Greenwood Press, 2008
- 7 Disasters in India Studies of grim reality, Anu Kapur & others, 2005, 283 pages, Rawat Publishers, Jaipur
8. Management of Natural Disasters in developing countries, H.N. Srivastava & G.D. Gupta, Daya Publishers, Delhi, 2006, 201 pages
9. Natural Disasters, David Alexander, Kluwer Academic London, 1999.
- 10 Disaster Management Act 2005, Publisher by Govt. of India.
- 11 Publications of National Disaster Management Authority (NDMA) on Various Templates and Guidelines for Disaster Management NIDM Publications
- 12 High Power Committee Report, 2001, J.C. Pant
- 13 Disaster Mitigation in Asia & Pacific, Asian Development Bank
- 14 National Disaster Management Policy, 2009, Government of India
- 15 Disaster Preparedness Kit, American Red Cross
- 16 Bryant Edwards (2005): Natural Hazards, Cambridge University Press, U.K.
- 17 Carter, W. Nick, 1991: Disaster Management, Asian Development Bank, Manila.
- 18 Sahni, Pardeep et.al. (eds.) 2002, Disaster Mitigation Experiences and Reflections, Prentice Hall of India, New Delhi.
- 19 Roy, P.S. (2000): Space Technology for Disaster management: A Remote Sensing & GIS Perspective, Indian Institute of Remote Sensing (NRSA) Dehradun.
- 20 Sharma, R.K. & Sharma, G. (2005) (ed) Natural Disaster, APH Publishing Corporation, New Delhi.
- 21 Kasperson, J.X., R.E. Kasperson, and B.L. Turner III (Eds.), 1995, Regions at Risk: Comparisons of Threatened Environments, United Nations University Press, Tokyo
- 22 Singh Satendra (2003): Disaster Management in the Hills, Concept Publishing Company, New Delhi.
- 23 Taori, K (2005) Disaster Management through Panchayati Raj, Concept Publishing Company, New Delhi.

List of Open Source Software/learning website:

www.gis.development.net

www.iirs.n

rsa.org

<http://quak>

e.usgs.gov
www.nidmi
ndia.nic.in