

# MOHAMMED SATHAK A J COLLEGE OF ENGINEERING

Siruseri IT park, OMR, Chennai - 603103

LESSON PLAN							
Department of		Civil		Engineering			
Name of the Subject	Disaster Management			Name of the	Mr Syed Abuthahir		
Subject Code	GE8071			Year / Sem	III/V		
Acad Year	2021-2022			Batch	2019-2023		
Course Objective							
• To equip the students with the principles and design of water treatment units and distribution system.							
Course Outcome							
• To provide students an exposure to disasters, their significance and types.							
• To ensure that students begin to understand the relationship between vulnerability, disasters, disaster prevention and risk reduction							
• To gain a preliminary understanding of approaches of Disaster Risk Reduction (DRR)							
• To enhance awareness of institutional processes in the country and							
• To develop rudimentary ability to respond to their surroundings with potential disaster response in areas where they live, with due sensitivity							
Lesson Plan							
Sl. No.	Topic(s)	T / R* Book	Periods Required	Mode of Teaching (BB / PPT / NPTEL /	Blooms Level (L1-L6)	CO	PO
UNIT I INTRODUCTION TO DISASTERS							
1	Definition:Disaster,Hazard, Vulnerability	T1	1	BB	L2	CO1	PO1,PO3
2	Disasters and its Types	T1	2	BB	L3	CO1	PO1,PO3
3	Classification, Causes and Impacts	T1 & T3	2	BB	L2	CO1	PO1,PO3
4	Differential impacts	T1	2	BB	L2	CO1	PO1,PO3
5	Global trends in disasters	T1	1	BB	L2	CO1	PO1,PO3
6	Dos and Don'ts during various types of Disasters.	T1	1	BB	L2	CO1	PO1,PO3
7	(CBS) Case Study:Worst natural disaster 2013	T1	1	BB	L2	CO1	PO1,PO3
Suggested Activity: Assignment / Case Studies / Tuorials/ Quiz / Mini Projects / Model Developed/others Planned if any							
Evaluation method - MCQ							
UNIT II APPROACHES TO DISASTER RISK REDUCTION (DRR)							
7	Disaster cycle	T1 & T3	2	BB	L2	CO2	PO1,PO3-PO4
8	Different measures	T1	1	BB	L2	CO2	PO1,PO3
9	Roles and responsibilities	T1	2	BB	L2	CO2	PO1,PO3-PO4
10	Roles and responsibilities	T1	1	BB	L2	CO2	PO1,PO3-PO4
11	Processess and Framework	T1	2	BB	L3	CO2	PO1,PO3-PO4
12	Warning systems and Advisories	T1	1	BB	L2	CO2	PO1,PO3-PO4
13	(CBS)Global Facility for Disaster Risk Reduction	T1	1	BB	L2	CO2	PO1,PO3-PO4
Suggested Activity: Assignment / Case Studies / Tuorials/ Quiz / Mini Projects / Model Developed/others Planned if any							
Evaluation method - Paper Based							
UNIT III INTER-RELATIONSHIP BETWEEN DISASTERS AND DEVELOPMENT							
14	Factors affecting development	T1	2	BB	L2	CO3	PO1,PO3
15	Impact of Development projects	T1	2	BB	L3	CO3	PO1,PO3-PO5
16	Climate Change Adaptation	T1	1	BB	L3	CO3	PO1,PO3-PO5
17	Scenarios	T1	2	BB	L3	CO3	PO1,PO3-PO5
18	Relevance of indigenous knowledge, appropriate	T1,T4	1	BB	L3	CO3	PO1,PO3-PO5
19	(CBS)Climatic Change: Financial contributions of	T1	1	BB	L3	CO3	PO1,PO3-PO4
20	United Kingdom	T1	1	BB	L3	CO3	PO1,PO3,PO9
Suggested Activity: Assignment / Case Studies / Tuorials/ Quiz / Mini Projects / Model Developed/others Planned if any							
Evaluation method - Paper Based							
UNIT IV DISASTER RISK MANAGEMENT IN INDIA							
21	Profile of India	T1 & T4	1	BB	L3	CO4	PO1,PO3-PO5
22	Components of Disaster Relief	T1& R2	2	BB	L3	CO4	PO1,PO3-PO4
23	Institutional arrangements	T1	2	BB	L3	CO4	PO1,PO3-PO5
24	Acts and Policies	T1 & R1 & R2	1	BB	L3	CO4	PO1,PO3-PO4
25	Acts and Policies	T1 & R1 & R2	1	BB	L3	CO4	PO1,PO3-PO5
26	Role of GIS and Information Technology	T1 & R1	2	BB	L3	CO4	PO1,PO3,PO9
27	(CBS)National Cyclone Risk Mitigation Process	T1	1	BB	L3	CO4	PO1,PO3-PO5
Suggested Activity: Assignment / Case Studies / Tuorials/ Quiz / Mini Projects / Model Developed/others Planned if any							
Evaluation method - MCQ							
UNIT V DISASTER MANAGEMENT: APPLICATIONS AND CASE STUDIES AND FIELD WORKS							
28	Landslides	T1	1	BB	L2	CO5	PO1,PO3
29	Earthquake	T2	2	BB	L2	CO5	PO1,PO3
30	Drought	T2	1	BB	L2	CO5	PO1,PO3
31	Coastal Flooding	T2	2	BB	L3	CO5	PO1,PO3-PO4
	forest fire: Case studies						
32	Man Made disasters: Case Studies	T2 & T3	1	BB	L2	CO5	PO1,PO3
33	Space Based Inputs for Disaster Mitigation and Management	T2 & T4	1	BB	L3	CO5	PO1,PO3
34	Field works related to disaster management	T2 & T4	1	BB	L2	CO5	PO1,PO3-PO5

35	(CBS)Case Study: Natural disaster 2016 Chennai f	T2 & T4	1	BB	L2	CO5	PO1,PO3							
Suggested Activity: Assignment / Case Studies / Tuorials/ Quiz / Mini Projects / Model Developed/others Planned if any Case Study														
Evaluation method - Report submission														
Content Beyond the Syllabus Planned														
1	Study on different types of impounding structures used for water storage in india													
Text Books														
1	Singhal J.P “Disaster Management”, Laxmi Publications, 2010. ISBN-10: 9380386427 ISBN-13: 978-9380386423													
2	Tushar Bhattacharya, “Disaster Science and Management”, McGraw Hill India Education Pvt. Ltd., 2012.ISBN-10: 1259007367, ISBN-13:978-1259													
3	Gupta Anil K, Sreeja S. Nair. Environmental Knowledge for Disaster Risk Management, NIDM, New Delhi,2011.													
4	KapurAnu Vulnerable India: A Geographical study of Disasters, IIAS and Sage Publishers, New Delhi, 2010.													
Reference Books														
1	Govt. of India: Disaster Management Act, Government of India, New Delhi, 2005.													
2	Government of India, National Disaster Management Policy,2009.													
Website / URL References														
1	<a href="http://nidm.gov.in/PDF/DP/TAMILNADU.PDF">1. http://nidm.gov.in/PDF/DP/TAMILNADU.PDF</a>													
2	<a href="http://ndma.gov.in/images/policyplan/dmplan/National%20Disaster%20Management%20Plan%20May%202016.pdf">2. http://ndma.gov.in/images/policyplan/dmplan/National%20Disaster%20Management%20Plan%20May%202016.pdf</a>													
3	<a href="http://nidm.gov.in/idmc2/PDF/Outcome/Manmade.pdf">3. http://nidm.gov.in/idmc2/PDF/Outcome/Manmade.pdf</a>													
Blooms Level														
Level 1 ( L1 ) : Remembering Level 2 (L2) : Understanding Level 3 (L3) : Applying			Lower Order Thinking	Fixed Hour Exams	Level 4 (L4) : Analysing Level 5 (L5) : Evaluating Level 6 (L6) : Creating		Higher Order Thinking	Projects / Mini Projects						
Mapping syllabus with Bloom’s Taxonomy LOT and HOT														
Unit No	Unit Name			L1	L2	L3	L4	L5	L6	LOT	HOT	Total		
Unit 1	SOURCES OF WATER			0	5	1	0	0	0	6	0	6		
Unit 2	CONVEYANCE FROM THE SOURCE			0	6	1	0	0	0	7	0	7		
Unit 3	WATER TREATMENT			0	1	6	0	0	0	7	0	7		
Unit 4	ADVANCED WATER TREATMENT			0	3	0	0	0	0	3	0	3		
Unit 5	WATER DISTRIBUTION AND SUPPLY			0	5	2	0	0	0	7	0	7		
Total				0	20	10	0	0	0	30	0	30		
Total Percentage				0	66.6667	33.3333	0	0	0	100	0	100		
CO PO Mapping														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	2		2										2	2
CO2	3		2	2									2	2
CO3	3		3	3	3				2				2	2
CO4	3		2	3	3				2				2	2
CO5	3		3	3	3								2	2
Avg	2.8		2.4	2.75	3				2				2	2
Justification for CO-PO mapping														
CO1	PO1: Design of public water supply and impounding structures, Design and analysis of population forecasting, PO3:Demostration engineering tools													
CO2	PO1,PO3-PO4- Modern techniques like intake structures, pipes for water supply and conveyance of water													
CO3	PO1,PO3-PO5 - Design and Analysis of unit treatment process and design knowledge in water treatment plants, PO9 - Advanced Knowledge in													
CO4	PO1,PO3-PO5: Design and Analysis of water softening methods PO9- understanding of impact of engineering solutions on the advanced water													
CO5	PO1,PO3-PO4: Design of water supplies in building, PO5- Modern techniques in plumbing for water covoyance and Demostration engineering													
3	High level			2		Moderate level			1		Low level			
Name & Sign of Faculty Incharge : Rakesh R B														
Name & Sign of Subject Expert :														
Head of the Department :														