

**Department of Civil Engineering**  
**IV B.Tech IISEM, GWDM, 2015-16**  
**LESSON PLAN Ch.V.Hanumantha Rao**

Period	Date	Topic	Unit No	Teaching Methodology	Cumulative Periods
5,6	8-12-15	Introduction to Ground water	1	C.R	2
		hydrologic cycle	1	C.R	
		origin of ground water, rock properties effecting ground water	1	C.R	
		vertical distribution of ground water	1	C.R	
		zone of aeration and zone of saturation, geologic formation as Aquifers	1	C.R	
1	09-12-15	types of aquifers, porosity, Specific yield and Specific retention.	1	C.R	3
		Permeability, Darcy's law, storage coefficient. Transmissivity	1	C.R	
1,2	11-12-15	Differential equation governing ground water flow in three dimensions derivation	1	C.R	5
5,6	15-12-15	UnSteady radial flow in to a well	2	C.R	7
1	16-12-15	Non equilibrium equations-	2	C.R	8
1,2	18-12-15	Thesis solution	2	C.R	10
5,6	22-12-15	Jacob Method,Chow's simplifications	2	C.R	12
1	23-12-15	Leak aquifers	2	C.R	13
5,6	29-12-15	Surface methods of exploration, Numerical problems on G.W flow	3	C.R	15
1,2	1-01-16	Electrical resistivity and Seismic refraction methods	3	C.R	17
5,6	5-01-16	Geophysical logging, resistivity logging	3	C.R	19
1	6-01-16	Aerial Photogrammetry applications	3	C.R	20
1,2	8-01-16	Water well diameter	4	C.R	22
5,6	12-01-16	Well screen, screen length	4	C.R	24
5,6	19-01-16	Screen diameter, slot size	4	C.R	26
1	20-01-16	Design of collector wells	4	C.R	27
1,2	22-01-16	Infiltration galleries	4	C.R	29
1	27-01-16	Introduction to water ewlls	5		30
1,2	29-01-16	Various drainage methods such as rotary and percussion	5	C.R	32
5,6	1-02-16	Well construction process and installation of well screens recharge methods & types	5	C.R	34
1	2-02-16	Pull-back method, open hole, bail-down method	5	C.R	35
1,2	5-01-16	Wash down method, well development method	5	C.R	37
5,6	6-01-16	Well completion, well disinfection, well maintenance	5	C.R	39
1	17-02-16	Introduction to artificial recharge of GW	6	C.R	40
1,2	19-02-16	Concept of artificial recharge	6	C.R	42
3	23-02-16	recharge methods, basin, stream channel	6	C.R	43
1	24-02-16	Ditch and furrow	6	C.R	44
1,2	26-02-16	Flooding and recharge well methods	6	C.R	46
5,6	1-03-16	Recharge mounds and induced recharge	6	C.R	48
1	2-03-16	salinewater intrusion	7	C.R	49

1,2	6-03-16	Occurrence of saline water intrusions	7	C.R	51
5,6	8-03-16	Ghyben-Herzberg relation	7	C.R	53
1	9-03-16	Shape of interface	7	C.R	54
1,2	11-03-16	Control of sea water intrusion	7	C.R	56
5,6	15-03-16	Hydrologic equilibrium equation	8	C.R	58
1	16-03-16	Basin management	8	C.R	59
1,2	18-03-16	Revision of I, II Units	1,2	C.R	61
5,6	22-03-16	Revision of III, IV Units	3,4	C.R	63
5,6	29-03-16	Revision of 5, 6 Units	5,6	C.R	65
1,2	1-04-16	Revision of 7, 8 Units	7,8	C.R	67

NOTE: C.R- Class Room Teaching (Black board, PPT)

Ch. v. Hantham

Signature