SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE – 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in
DEPARTMENT OF CIVIL ENGINEERING

Name of the Program :B.Tech Civil Engineering **Academic Year : 2022 - 23**
Name of the course :Transportation Engineering-I **Year & Semester : III& I**
Course Code : P181CET12 **Section: A**

S. No.	Topic	Required Hours	Date of Completion
	Unit-1		
1	HighwaydevelopmentinIndia	1	08/08/2022
2	ClassificationofRoads	1	10/08/2022
3	RoadNetworkPatterns	1	11/08/2022
4	DifferentRoadDevelopmentPlans	1	12/08/2022
5	HighwayAlignment,FactorsaffectingAlignment	2	16/08/2022
6	EngineeringSurveys	1	18/08/2022
7	Testsonhighwaymaterials –CBRtest	1	19/08/2022
8	Tutorials	1	22/08/2022
9	Classroomtest	1	23/08/2022
10	Revision	1	24/08/2022
	Unit-2		
11	ImportanceofGeometricDesign	1	25/08/2022
12	DesigncontrolsandCriteria	1	26/08/2022
13	HighwayCrossSectionElements	1	29/08/2022
14	SightDistanceElements-StoppingsightDistance	1	30/08/2022
15	OvertakingSightDistanceandIntermediateSightDistance	1	01/09/2022
16	DesignofHorizontalAlignment	1	02/09/2022
17	DesignofSuperelevationandExtrawidening	2	05/09/2022
18	DesignofTransitionCurves	1	07/09/2022
19	DesignofVerticalalignment-Gradients	1	08/09/2022

20	Verticalcurves	1	09/09/2022
21	Overview	1	12/09/2022
22	Classroomtest	1	13/09/2022
23	Revision	1	14/09/2022
	Unit-3		
24	BasicParameters ofTraffic-Volume,SpeedandDensity	1	15/09/2022
25	TrafficVolumeStudies	1	16/09/2022
26	Speedstudies–spotspeedandspeed&delaystudies	2	19/09/2022
27	ParkingStudies	1	21/09/2022
28	RoadAccidents-CausesandPreventivemeasures	1	22/09/2022
29	PCUfactors-RoadTrafficSigns	1	23/09/2022
30	Roadmarkings	1	27/09/2022
31	Types ofIntersections-RotaryandChannelizedIntersections	2	28/09/2022
32	DesignofTrafficSignals–WebsterMethod	1	30/09/2022
33	IRCMethod	1	17/10/2022
34	Classroomtest	1	18/10/2022
35	Revision	1	19/10/2022
	Unit-4		
36	Types ofpavements–Differencebetweenflexibleandrigid pavements	1	20/10/2022
37	PavementComponents–Subgrade,Subbase,baseandwearingcourse	1	25/10/2022
38	Functionsofpavementcomponents	1	26/10/2022
39	Flexiblepavement:Designfactors	1	27/10/2022
40	Designmethods–CBRMethod	1	31/10/2022
41	IRCmethod.	1	01/11/2022
42	RigidPavements:Designconsiderations–wheelloadstresses	1	02/11/2022
43	Temperaturestresses	1	03/11/2022
44	Frictionalstresses –Combinationofstresses	1	07/11/2022
45	Designofslabs	1	08/11/2022

46	DesignofJoints-IRCmethod	1	09/11/2022
47	Overview	1	10/11/2022
48	Classroomtest	1	14/11/2022
49	Revision	1	15/11/2022
	Unit-5		
50	TypesofHighwayConstruction,Earthwork	1	16/11/2022
51	Constructionof EarthRoads	1	17/11/2022
52	ConstructionofGravelRoads	1	21/11/2022
53	ConstructionofWaterBoundMacadamRoads	1	22/11/2022
54	ConstructionofBituminousPavements	1	23/11/2022
55	ConstructionofCementConcretePavements	1	24/11/2022
56	MaintenanceofHighways	1	28/11/2022
57	Pavement evaluation	1	30/11/2022
58	Strengtheningofexistingpavements	1	01/12/2022
59	Tutorials	1	02/12/2022
60	Classroomtest	1	05/12/2022

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Unit	I	I	II	II	II	III	III	III	IV	IV	IV	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

Name of the Program : B.Tech Civil Engineering **Academic Year : 2022 - 23**
Name of the course : Transportation Engineering-I **Year & Semester : III & I**
Course Code : P181CET12 **Section : B**

S. No.	Topic	Required Hours	Date of Completion
	Unit-1		
1	HighwaydevelopmentinIndia	1	10/08/2022
2	ClassificationofRoads	1	11/08/2022
3	RoadNetworkPatterns	1	12/08/2022
4	DifferentRoadDevelopmentPlans	1	16/08/2022
5	HighwayAlignment,FactorsaffectingAlignment	2	17/08/2022
6	EngineeringSurveys	1	19/08/2022
7	Testsonhighwaymaterials –CBRtest	1	22/08/2022
8	Tutorials	1	23/08/2022
9	Classroomtest	1	24/08/2022
10	Revision	1	25/08/2022
	Unit-2		
11	ImportanceofGeometricDesign	1	26/08/2022
12	DesigncontrolsandCriteria	1	29/08/2022
13	HighwayCrossSectionElements	1	30/08/2022
14	SightDistanceElements-StoppingsightDistance	1	01/09/2022
15	OvertakingSightDistanceandIntermediateSightDistance	1	02/09/2022
16	DesignofHorizontalAlignment	1	05/09/2022
17	DesignofSuperelevationandExtrawidening	2	07/09/2022
18	DesignofTransitionCurves	1	09/09/2022
19	DesignofVerticalalignment-Gradients	1	12/09/2022

20	Verticalcurves	1	13/09/2022
21	Overview	1	14/09/2022
22	Classroomtest	1	15/09/2022
23	Revision	1	16/09/2022
	Unit-3		
24	BasicParameters ofTraffic-Volume,SpeedandDensity	1	19/09/2022
25	TrafficVolumeStudies	1	20/09/2022
26	Speedstudies–spotspeedandspeed&delaystudies	2	21/09/2022
27	ParkingStudies	1	23/09/2022
28	RoadAccidents-CausesandPreventivemeasures	1	27/09/2022
29	PCUfactors-RoadTrafficSigns	1	28/09/2022
30	Roadmarkings	1	29/09/2022
31	Types ofIntersections-RotaryandChannelizedIntersections	2	30/09/2022
32	DesignofTrafficSignals–WebsterMethod	1	17/10/2022
33	IRCMethod	1	18/10/2022
34	Classroomtest	1	19/10/2022
35	Revision	1	20/10/2022
	Unit-4		
36	Types ofpavements–Differencebetweenflexibleandrigid pavements	1	25/10/2022
37	PavementComponents–Subgrade,Subbase,baseandwearingcourse	1	26/10/2022
38	Functionsofpavementcomponents	1	27/10/2022
39	Flexiblepavement:Designfactors	1	31/10/2022
40	Designmethods–CBRMethod	1	01/11/2022
41	IRCmethod.	1	02/11/2022
42	RigidPavements:Designconsiderations–wheelloadstresses	1	03/11/2022
43	Temperaturestresses	1	07/11/2022
44	Frictionalstresses –Combinationofstresses	1	08/11/2022
45	Designofslabs	1	09/11/2022

46	DesignofJoints-IRCmethod	1	10/11/2022
47	Overview	1	14/11/2022
48	Classroomtest	1	15/11/2022
49	Revision	1	16/11/2022
	Unit-5		
50	TypesofHighwayConstruction,Earthwork	1	17/11/2022
51	Constructionof EarthRoads	1	21/11/2022
52	ConstructionofGravelRoads	1	22/11/2022
53	ConstructionofWaterBoundMacadamRoads	1	23/11/2022
54	ConstructionofBituminousPavements	1	24/11/2022
55	ConstructionofCementConcretePavements	1	28/11/2022
56	MaintenanceofHighways	1	30/11/2022
57	Pavement evaluation	1	01/12/2022
58	Strengtheningofexistingpavements	1	02/12/2022
59	Tutorials	1	05/12/2022
60	Classroomtest	1	06/12/2022

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Unit	I	I	II	II	II	III	III	III	IV	IV	IV	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE – 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in
DEPARTMENT OF CIVIL ENGINEERING

Name of the Program : B.Tech Civil Engineering
Name of the course : Transportation Engineering-I
Course Code : P181CET12

Academic Year : 2022 - 23
Year & Semester : III & I
Section : C

S. No.	Topic	Required Hours	Date of Completion
	Unit-1		
1	HighwaydevelopmentinIndia	1	08/08/2022
2	ClassificationofRoads	1	10/08/2022
3	RoadNetworkPatterns	1	11/08/2022
4	DifferentRoadDevelopmentPlans	1	12/08/2022
5	HighwayAlignment,FactorsaffectingAlignment	2	16/08/2022
6	EngineeringSurveys	1	18/08/2022
7	Testsonhighwaymaterials –CBRtest	1	19/08/2022
8	Tutorials	1	22/08/2022
9	Classroomtest	1	23/08/2022
10	Revision	1	24/08/2022
	Unit-2		
11	ImportanceofGeometricDesign	1	25/08/2022
12	DesigncontrolsandCriteria	1	26/08/2022
13	HighwayCrossSectionElements	1	29/08/2022
14	SightDistanceElements-StoppingsightDistance	1	30/08/2022
15	OvertakingSightDistanceandIntermediateSightDistance	1	01/09/2022
16	DesignofHorizontalAlignment	1	02/09/2022
17	DesignofSuperelevationandExtrawidening	2	05/09/2022
18	DesignofTransitionCurves	1	07/09/2022
19	DesignofVerticalalignment-Gradients	1	08/09/2022

20	Verticalcurves	1	09/09/2022
21	Overview	1	12/09/2022
22	Classroomtest	1	13/09/2022
23	Revision	1	14/09/2022
	Unit-3		
24	BasicParameters ofTraffic-Volume,SpeedandDensity	1	15/09/2022
25	TrafficVolumeStudies	1	16/09/2022
26	Speedstudies–spotspeedandspeed&delaystudies	2	19/09/2022
27	ParkingStudies	1	21/09/2022
28	RoadAccidents-CausesandPreventivemeasures	1	22/09/2022
29	PCUfactors-RoadTrafficSigns	1	23/09/2022
30	Roadmarkings	1	27/09/2022
31	Types ofIntersections-RotaryandChannelizedIntersections	2	28/09/2022
32	DesignofTrafficSignals–WebsterMethod	1	30/09/2022
33	IRCMethod	1	17/10/2022
34	Classroomtest	1	18/10/2022
35	Revision	1	19/10/2022
	Unit-4		
36	Types ofpavements–Differencebetweenflexibleandrigid pavements	1	20/10/2022
37	PavementComponents–Subgrade,Subbase,baseandwearingcourse	1	25/10/2022
38	Functionsofpavementcomponents	1	26/10/2022
39	Flexiblepavement:Designfactors	1	27/10/2022
40	Designmethods–CBRMethod	1	31/10/2022
41	IRCmethod.	1	01/11/2022
42	RigidPavements:Designconsiderations–wheelloadstresses	1	02/11/2022
43	Temperaturestresses	1	03/11/2022
44	Frictionalstresses –Combinationofstresses	1	07/11/2022
45	Designofslabs	1	08/11/2022

46	DesignofJoints-IRCmethod	1	09/11/2022
47	Overview	1	10/11/2022
48	Classroomtest	1	14/11/2022
49	Revision	1	15/11/2022
	Unit-5		
50	TypesofHighwayConstruction,Earthwork	1	16/11/2022
51	Constructionof EarthRoads	1	17/11/2022
52	ConstructionofGravelRoads	1	21/11/2022
53	ConstructionofWaterBoundMacadamRoads	1	22/11/2022
54	ConstructionofBituminousPavements	1	23/11/2022
55	ConstructionofCementConcretePavements	1	24/11/2022
56	MaintenanceofHighways	1	28/11/2022
57	Pavement evaluation	1	30/11/2022
58	Strengtheningofexistingpavements	1	01/12/2022
59	Tutorials	1	02/12/2022
60	Classroomtest	1	05/12/2022

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Unit	I	I	II	II	II	III	III	III	IV	IV	IV	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

Lesson plan

Year/Sem: III-I **Sub: TRANSPORTATION ENGINEERING-I** **A.Y:2020-21**

S.No	Topic	Required classes	Proposed Date
	Unit – I		
1	Highway development in India	1	26/10/2020
2	Classification of Roads	1	27/10/2020
3	Road Network Patterns	1	28/10/2020
4	Different Road Development Plans	1	29/10/2020
5	Highway Alignment, Factors affecting Alignment	2	02/11/2020
6	Engineering Surveys	1	04/11/2020
7	Tests on highway materials – CBR test	1	05/11/2020
8	Tutorials	1	06/11/2020
9	Class room test	1	09/11/2020
	Unit – II		
10	Importance of Geometric Design	1	10/11/2020
11	Design controls and Criteria	1	11/11/2020
12	Highway Cross Section Elements	1	12/11/2020
13	Sight Distance Elements-Stopping sight Distance	1	13/11/2020
14	Overtaking Sight Distance and Intermediate Sight Distance	1	16/11/2020
15	Design of Horizontal Alignment	1	17/11/2020
16	Design of Super elevation and Extra widening	2	18/11/2020
17	Design of Transition Curves	1	20/11/2020
18	Design of Vertical alignment-Gradients	1	23/11/2020
19	Vertical curves	1	24/11/2020
20	Overview	1	25/11/2020
21	Class room test	1	26/11/2020
	Unit – III		
22	Basic Parameters of Traffic-Volume, Speed and Density	1	27/11/2020
23	Traffic Volume Studies	1	30/11/2020
24	Speed studies –spot speed and speed & delay studies	2	01/12/2020
25	Parking Studies	1	03/12/2020
26	Road Accidents- Causes and Preventive measures	1	04/12/2020
27	PCU factors-Road Traffic Signs	1	14/12/2020
28	Road markings	1	15/12/2020
29	Types of Intersections- Rotary and Channelized Intersections	2	16/12/2020
30	Design of Traffic Signals –Webster Method	1	18/12/2020
31	IRC Method	1	21/12/2020
32	Class room test	1	22/12/2020
	Unit – IV		
33	Types of pavements – Difference between flexible and rigid pavements	1	23/12/2020
34	Pavement Components – Sub grade, Sub base, base and wearing course	1	24/12/2020
35	Functions of pavement components	1	28/12/2020
36	Flexible pavement: Design factors	1	29/12/2020
37	Design methods –CBR Method	1	30/12/2020
38	IRC method.	1	31/12/2020
39	Rigid Pavements: Design considerations –wheel load stresses	1	04/01/2021

40	Temperature stresses	1	05/01/2021
41	Frictional stresses – Combination of stresses	1	06/01/2021
42	Design of slabs	1	07/01/2021
43	Design of Joints-IRC method	1	08/01/2021
44	Overview	1	11/01/2021
45	Class room test	1	12/01/2021
	Unit – V		
46	Types of Highway Construction, Earthwork	1	18/01/2021
47	Construction of Earth Roads	1	19/01/2021
48	Construction of Gravel Roads	1	20/01/2021
49	Construction of Water Bound Macadam Roads	1	21/01/2021
50	Construction of Bituminous Pavements	1	22/01/2021
51	Construction of Cement Concrete Pavements	1	25/01/2021
52	Maintenance of Highways	1	27/01/2021
53	Pavement evaluation	1	28/01/2021
54	Strengthening of existing pavements	1	29/01/2021
55	Tutorials	1	01/02/2021
56	Class room test	1	02/02/2021

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Unit	I	I	II	II	II	III	III	III	IV	IV	IV	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(AUTONOMOUS)
Approved by AICTE and Govt.of Andhra Pradesh, Accredited by NAAC(A Grade) | Recognized under 2(f) & 12(B) of UGC
Permanently Affiliated to JNTUK, Kakinada.A.P. | An ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 Certified Institution
NH-16, Near Valluramma Temple, ONGOLE - 523 272, A.P., India, Ph.: 08592 278315, 9581456310 | www.pace.ac.in

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the Program: B.Tech
Name of the Course & Code: Environmental Engineering
Year & Semester: IV & I

Academic Year:2023-24
Course Code: P18CET19
Section: A

S.NO	TOPIC	REQUIRED HOURS	PROPOSED DATES
	Unit-I		
1	Introduction: Importance and Necessity of Protected Water Supply systems	1	12 - 07 - 2023
2	Water borne diseases	1	13 - 07 - 2023
3	Estimation of water demand for a town or city	1	14 - 07 - 2023
4	Per capita Demand and factors influencing Per capita Demand	1	15 - 07 - 2023
5	Types of water demands	1	19 - 07 - 2023
6	variations factors affecting water demand	1	20 - 07 - 2023
7	Design Period	1	21 - 07 - 2023
8	Factors affecting the Design period	1	22 - 07 - 2023
9	Population Forecasting.	1	26 - 07 - 2023
10	Population Forecasting.	1	27 - 07 - 2023
11	Revision and discussion of important topics	1	28 - 07 - 2023
12	UNIT-1 CRT	1	2 - 08 - 2023
	Unit-II		
13	Sources of Water: Lakes, Rivers, Impounding Reservoirs	1	3 - 08 - 2023
14	comparison of sources with reference to quality, quantity and other considerations	1	2 - 08 - 2023
15	Capacity of storage reservoirs, Mass curve analysis.	1	4 - 08 - 2023
16	Groundwater sources of water	1	5 - 08 - 2023
17	Types of water bearing formations	1	9 - 08 - 2023
18	Springs and Wells	1	10 - 08 - 2023
19	Infiltration galleries, Yields from infiltration galleries	1	11 - 08 - 2023
20	Factors governing the selection of the intake structure	1	12 - 08 - 2023
21	Types of Intakes	1	16 - 08 - 2023
22	Conveyance of Water: Gravity and Pressure conduits	1	17 - 08 - 2023
23	Revision and discussion of important topics	1	18 - 08 - 2023
24	UNIT-2 CRT	1	19 - 08 - 2023
	Unit-III		
25	Quality and Analysis of Water	1	23 - 08 - 2023
26	Characteristics of water–Physical	1	24 - 08 - 2023
27	Characteristics of water–Chemical	1	25 - 08 - 2023
28	Characteristics of water–Chemical	1	26 - 08 - 2023
29	Characteristics of water–Biological	1	30 - 08 - 2023
30	I.S. Drinking water quality standards	1	31 - 08 - 2023
31	Comparison of sources with reference to quality- I.S. Drinking water quality standards	1	1 - 09 - 2023
32	WHO guidelines for drinking water.	1	2 - 09 - 2023
33	Revision and discussion of important topics	1	13 - 09 - 2023
34	UNIT-3 CRT	1	14 - 09 - 2023

	Unit-IV		
35	Treatment of Water	1	15 - 09 - 2023
36	Flowchart of water treatment plant	1	16 - 09 - 2023
37	Treatment methods	1	20 - 09 - 2023
38	Theory and Design of Sedimentation	1	21 - 09 - 2023
39	Coagulation	1	22 - 09 - 2023
40	Sedimentation with Coagulation	1	23 - 09 - 2023
41	Filtration	1	27 - 09 - 2023
42	Theory of disinfection-Chlorination and other Disinfection methods	1	28 - 09 - 2023
43	Softening of Water	1	29 - 09 - 2023
44	Removal of colour and odours- Iron and manganese removal	1	30 - 09 - 2023
45	Adsorption-fluoridation and deflouridation– aeration	1	4 - 10 - 2023
46	Reverse Osmosis-Iron exchange–Ultra filtration	1	5 - 10 - 2023
47	Revision and discussion of important topics	1	6 - 10 - 2023
48	UNIT-4 CRT	1	7 - 10 - 2023
	Unit-V		
49	Distribution of Water	1	11 - 10 - 2023
50	Requirements- Methods of Distribution system	1	12 - 10 - 2023
51	Layouts of Distribution networks,	1	13 - 10 - 2023
52	Pressures in the distribution layouts	1	14 - 10 - 2023
53	Analysis of Distribution networks: Hardy Cross	1	18 - 10 - 2023
54	Analysis of Distribution networks: Equivalent pipe methods	1	26 - 10 - 2023
55	Components of Distribution system: valves such as sluice valves, air valves, scour valves and check valves	1	27 - 10 - 2023
56	hydrants, and water meters	1	28 - 10 - 2023
57	Laying and testing of pipe lines	1	1 - 11 - 2023
58	Selection of pipe materials, pipe joints.	1	2 - 11 - 2023
59	Revision and discussion of important topics	1	3 - 11 - 2023
60	UNIT-5 CRT	1	4 - 11 - 2023

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Unit	I	I	I	II	II	II	III	III	III	III	IV	IV	IV	V	V	V

FACULTY

HEAD OF THE DEPARTMENT

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S

PACE INSTITUTE OF TECHNOLOGY & SCIENCES

(AUTONOMOUS)

Approved by AICTE and Govt.of Andhra Pradesh, Accredited by NAAC(A Grade) | Recognized under 2(f) & 12(B) of UGC
Permanently Affiliated to JNTUK, Kakinada.A.P. | An ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 Certified Institution
NH-16, Near Valluramma Temple, ONGOLE - 523 272, A.P., India, Ph.: 08592 278315, 9581456310 | www.pace.ac.in

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the Program: B.Tech
Name of the Course & Code: Environmental Engineering
Year & Semester: IV & I

Academic Year:2023-24
Course Code: P18CET19
Section: B

S.NO	TOPIC	REQUIRED HOURS	PROPOSED DATES
	Unit-I		
1	Introduction: Importance and Necessity of Protected Water Supply systems	1	10 - 07 - 2023
2	Water borne diseases	1	12 - 07 - 2023
3	Estimation of water demand for a town or city	1	14 - 07 - 2023
4	Per capita Demand and factors influencing Per capita Demand	1	15 - 07 - 2023
5	Types of water demands	1	17 - 07 - 2023
6	variations factors affecting water demand	1	18 - 07 - 2023
7	Design Period	1	21 - 07 - 2023
8	Factors affecting the Design period	1	22 - 07 - 2023
9	Population Forecasting.	1	24 - 07 - 2023
10	Population Forecasting.	1	26 - 07 - 2023
11	Revision and discussion of important topics	1	28 - 07 - 2023
12	UNIT-1 CRT	1	29 - 07 - 2023
	Unit-II		
13	Sources of Water: Lakes, Rivers, Impounding Reservoirs	1	31 - 07 - 2023
14	comparison of sources with reference to quality, quantity and other considerations	1	2 - 08 - 2023
15	Capacity of storage reservoirs, Mass curve analysis.	1	4 - 08 - 2023
16	Groundwater sources of water	1	5 - 08 - 2023
17	Types of water bearing formations	1	7 - 08 - 2023
18	Springs and Wells	1	9 - 08 - 2023
19	Infiltration galleries, Yields from infiltration galleries	1	11 - 08 - 2023
20	Factors governing the selection of the intake structure	1	12 - 08 - 2023
21	Types of Intakes	1	14 - 08 - 2023
22	Conveyance of Water: Gravity and Pressure conduits	1	16 - 08 - 2023
23	Revision and discussion of important topics	1	18 - 08 - 2023
24	UNIT-2 CRT	1	19 - 08 - 2023
	Unit-III		
25	Quality and Analysis of Water	1	21 - 08 - 2023
26	Characteristics of water–Physical	1	23 - 08 - 2023
27	Characteristics of water–Chemical	1	25 - 08 - 2023
28	Characteristics of water–Chemical	1	26 - 08 - 2023
29	Characteristics of water–Biological	1	28 - 08 - 2023
30	I.S. Drinking water quality standards	1	30 - 08 - 2023
31	Comparison of sources with reference to quality- I.S. Drinking water quality standards	1	1 - 09 - 2023
32	WHO guidelines for drinking water.	1	2 - 09 - 2023
33	Revision and discussion of important topics	1	11 – 09 - 2023
34	UNIT-3 CRT	1	13 – 09 - 2023

	Unit-IV		
35	Treatment of Water	1	14 – 09 - 2023
36	Flowchart of water treatment plant	1	18 - 09 - 2023
37	Treatment methods	1	20 - 09 - 2023
38	Theory and Design of Sedimentation	1	20 - 09 - 2023
39	Coagulation	1	22 - 09 - 2023
40	Sedimentation with Coagulation	1	23 - 09 - 2023
41	Filtration	1	25 - 09 - 2023
42	Theory of disinfection-Chlorination and other Disinfection methods	1	27 - 09 - 2023
43	Softening of Water	1	27 - 09 - 2023
44	Removal of colour and odours- Iron and manganese removal	1	29 - 09 - 2023
45	Adsorption-fluoridation and deflouridation– aeration	1	30 - 09 - 2023
46	Reverse Osmosis-Iron exchange–Ultra filtration	1	4 - 10 - 2023
47	Revision and discussion of important topics	1	6 - 10 - 2023
48	UNIT-4 CRT	1	7 - 10 - 2023
	Unit-V		
49	Distribution of Water	1	9 - 10 - 2023
50	Requirements- Methods of Distribution system	1	11 - 10 - 2023
51	Layouts of Distribution networks,	1	13 - 10 - 2023
52	Pressures in the distribution layouts	1	14 - 10 - 2023
53	Analysis of Distribution networks: Hardy Cross	1	16 - 10 - 2023
54	Analysis of Distribution networks: Equivalent pipe methods	1	18 - 10 - 2023
55	Components of Distribution system: valves such as sluice valves, air valves, scour valves and check valves	1	27 - 10 - 2023
56	hydrants, and water meters	1	28 - 10 - 2023
57	Laying and testing of pipe lines	1	30 - 10 - 2023
58	Selection of pipe materials, pipe joints.	1	1 - 11 - 2023
59	Revision and discussion of important topics	1	3 - 11 - 2023
60	UNIT-5 CRT	1	4 - 11 - 2023

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Unit	I	I	I	II	II	II	III	III	III	III	IV	IV	IV	V	V	V

FACULTY

HEAD OF THE DEPARTMENT

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S

PACE INSTITUTE OF TECHNOLOGY & SCIENCES

(AUTONOMOUS)

Approved by AICTE and Govt.of Andhra Pradesh, Accredited by NAAC(A Grade) | Recognized under 2(f) & 12(B) of UGC
Permanently Affiliated to JNTUK, Kakinada.A.P. | An ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 Certified Institution
NH-16, Near Valluramma Temple, ONGOLE - 523 272, A.P., India, Ph.: 08592 278315, 9581456310 | www.pace.ac.in

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the Program: B.Tech
Name of the Course & Code: Environmental Engineering
Year & Semester: IV & I

Academic Year:2023-24
Course Code: P18CET19
Section: C

S.NO	TOPIC	REQUIRED HOURS	PROPOSED DATES
	Unit-I		
1	Introduction: Importance and Necessity of Protected Water Supply systems	1	10 - 07 - 2023
2	Water borne diseases	1	12 - 07 - 2023
3	Estimation of water demand for a town or city	1	14 - 07 - 2023
4	Per capita Demand and factors influencing Per capita Demand	1	15 - 07 - 2023
5	Types of water demands	1	17 - 07 - 2023
6	variations factors affecting water demand	1	18 - 07 - 2023
7	Design Period	1	21 - 07 - 2023
8	Factors affecting the Design period	1	22 - 07 - 2023
9	Population Forecasting.	1	24 - 07 - 2023
10	Population Forecasting.	1	26 - 07 - 2023
11	Revision and discussion of important topics	1	28 - 07 - 2023
12	UNIT-1 CRT	1	29 - 07 - 2023
	Unit-II		
13	Sources of Water: Lakes, Rivers, Impounding Reservoirs	1	31 - 07 - 2023
14	comparison of sources with reference to quality, quantity and other considerations	1	2 - 08 - 2023
15	Capacity of storage reservoirs, Mass curve analysis.	1	4 - 08 - 2023
16	Groundwater sources of water	1	5 - 08 - 2023
17	Types of water bearing formations	1	7 - 08 - 2023
18	Springs and Wells	1	9 - 08 - 2023
19	Infiltration galleries, Yields from infiltration galleries	1	11 - 08 - 2023
20	Factors governing the selection of the intake structure	1	12 - 08 - 2023
21	Types of Intakes	1	14 - 08 - 2023
22	Conveyance of Water: Gravity and Pressure conduits	1	16 - 08 - 2023
23	Revision and discussion of important topics	1	18 - 08 - 2023
24	UNIT-2 CRT	1	19 - 08 - 2023
	Unit-III		
25	Quality and Analysis of Water	1	21 - 08 - 2023
26	Characteristics of water–Physical	1	23 - 08 - 2023
27	Characteristics of water–Chemical	1	25 - 08 - 2023
28	Characteristics of water–Chemical	1	26 - 08 - 2023
29	Characteristics of water–Biological	1	28 - 08 - 2023
30	I.S. Drinking water quality standards	1	30 - 08 - 2023
31	Comparison of sources with reference to quality- I.S. Drinking water quality standards	1	1 - 09 - 2023
32	WHO guidelines for drinking water.	1	2 - 09 - 2023
33	Revision and discussion of important topics	1	4 - 09 - 2023
34	UNIT-3 CRT	1	8 - 09 - 2023

	Unit-IV		
35	Treatment of Water	1	9 - 09 - 2023
36	Flowchart of water treatment plant	1	18 - 09 - 2023
37	Treatment methods	1	20 - 09 - 2023
38	Theory and Design of Sedimentation	1	20 - 09 - 2023
39	Coagulation	1	22 - 09 - 2023
40	Sedimentation with Coagulation	1	23 - 09 - 2023
41	Filtration	1	25 - 09 - 2023
42	Theory of disinfection-Chlorination and other Disinfection methods	1	27 - 09 - 2023
43	Softening of Water	1	27 - 09 - 2023
44	Removal of colour and odours- Iron and manganese removal	1	29 - 09 - 2023
45	Adsorption-fluoridation and deflouridation– aeration	1	30 - 09 - 2023
46	Reverse Osmosis-Iron exchange–Ultra filtration	1	4 - 10 - 2023
47	Revision and discussion of important topics	1	6 - 10 - 2023
48	UNIT-4 CRT	1	7 - 10 - 2023
	Unit-V		
49	Distribution of Water	1	9 - 10 - 2023
50	Requirements- Methods of Distribution system	1	11 - 10 - 2023
51	Layouts of Distribution networks,	1	13 - 10 - 2023
52	Pressures in the distribution layouts	1	14 - 10 - 2023
53	Analysis of Distribution networks: Hardy Cross	1	16 - 10 - 2023
54	Analysis of Distribution networks: Equivalent pipe methods	1	18 - 10 - 2023
55	Components of Distribution system: valves such as sluice valves, air valves, scour valves and check valves	1	27 - 10 - 2023
56	hydrants, and water meters	1	28 - 10 - 2023
57	Laying and testing of pipe lines	1	30 - 10 - 2023
58	Selection of pipe materials, pipe joints.	1	1 - 11 - 2023
59	Revision and discussion of important topics	1	3 - 11 - 2023
60	UNIT-5 CRT	1	4 - 11 - 2023

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Unit	I	I	I	II	II	II	III	III	III	III	IV	IV	IV	V	V	V

FACULTY

HEAD OF THE DEPARTMENT

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE – 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in

DEPARTMENT OF CIVIL ENGINEERING

Name of the Program : B. Tech in Civil Engineering
Year &Semester : IV Year I Semester
Name of the Course : ENVIRONMENTAL ENGINEERING
Course : Section: A

Academic Year: 2022-23
No of Credits: 03
Code : P18CET19
Regulation : R18

Lesson Plan

Session	Date	Unit	Topic
1	6/7/2022	1	General discussion on pollution - relevance to Environment
2	8/7/2022	1	Introduction to Environmental Engineering
3	8/7/2022	1	Necessity of Protected Water Supply Systems - Water Borne Diseases
4	9/7/2022	1	Per capita Demand - Factors affecting per capita Demand
5	12/7/2022	1	Estimation of Per capita Demand
6	13/7/2022	1	Numerical examples on Per Capita Demand
7	15/7/2022	1	Types of Demand - Factors affecting demand
8	15/7/2022	1	Variations in Water Demand
9	16/7/2022	1	Design period - factros affecting design period
10	19/7/2022	1	Population forecasting
11	20/7/2022	1	Numerical examples on Population forecasting
12	22/7/2022	1	Numerical examples on Population forecasting
13	22/7/2022	1	Class Room Test on Unit - I
			UNIT-2
14	23/7/2022	2	Sources of Water - Types
15	26/7/2022	2	Surface water sources - Lakes, rivers, impounding reservoirs
16	27/7/2022	2	Capacity of storage reservoirs
17	29/7/2022	2	Mass-Curve Analysis
18	29/7/2022	2	Ground water sources - classification - Water bearing formations
19	30/7/2022	2	Springs - Wells
20	2/8/2022	2	Infiltration Galleries - Yield from Infiltration gallaries
21	3/8/2022	2	Comparison of sources with reference to quality and quantity
22	5/8/2022	2	Intake Structures - types - explanation
23	5/8/2022	2	Factors affecting the selection of Intake structures
24	6/8/2022	2	Conveyance of Water: Gravity and Pressure Conduits
25	10/8/2022	2	Class Room Test on Unit - II
			UNIT-3
26	12/8/2022	3	Characteristics of Water - Types
27	13/8/2022	3	Physical Characteristics of Water
28	16/8/2022	3	Physical Characteristics of Water
29	17/8/2022	3	Chemical Characteristics of Water
30	20/8/2022	3	Chemical Characteristics of Water
31	23/8/2022	3	Biological Characteristics of Water

32	24/8/2022	3	Analysis of Water - Inportance and Types of Tests
33	26/8/2022	3	Physical Tests
34	26/8/2022	3	Chemical Tests
35	27/8/2022	3	Biological Tests
36	6/9/2022	3	I.S. Drinking Water Quality Standards
37	7/9/2022	3	WHO Guidelines for Drinking Water
38	9/9/2022	3	Class Room Test on Unit - III
			UNIT-4
39	9/9/2022	4	Treatment of Water - Treatment Plant - Flow Chart
40	10/9/2022	4	Methods of Treatment
41	13/9/2022	4	Theory and Principle of Sedimentation
42	14/9/2022	4	Types of Sedimentation
43	16/9/2022	4	Design of sedimentation - illustrative example
44	16/9/2022	4	Sedimentation with Coagulation
45	17/9/2022	4	Theory of Filtration
46	20/9/2022	4	Types and design of Filters
47	21/9/2022	4	Theory of Disinfection - chlorination, treatment with lime and other Methods
48	23/9/2022	4	Discussion on Chlorination
49	23/9/2022	4	Softening of Water
50	24/9/2022	4	Removal of Colour and Odour
51	27/9/2022	4	Removal of Iron and Manganese
52	28/9/2022	4	Adsorption - Aeration
53	30/9/2022	4	Fluoridation and De fluoridation
54	30/9/2022	4	R O and Unltra Filtration Processes
55	1/10/2022	4	Ion Exchange Process
56		4	Class Room Test on Unit - IV
			UNIT-5
57	8/10/2022	5	Distribution of Water - Requirements
58	11/10/2022	5	Methods of Distribution System
59	12/10/2022	5	Distribution Network - Layouts
60	14/10/2022	5	Pressures in the Distribution Systems
61	14/10/2022	5	Analysis of Distribution Networks - HardyCross Method
62	15/10/2022	5	Analysis of Distribution Networks - Equivalent Pipe Method
63	18/10/2022	5	Components of Distrubution System - Elements - Sluice Valve, Air Valve
64	21/10/2022	5	Hydrants - Types and description
65	21/10/2022	5	Water Meters
66	22/10/2022	5	Laying of Pipes, Testing of Pipe lines
67	25/10/2022	5	Selection of Pipe Materials
68	28/10/2022	5	Pipe Joints
69	28/102022	5	Class Room Test on Unit - V
70	29/10/2022	5	Conclusion

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unit	I	I	I	II	II	III	III	III	IV	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE – 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in

DEPARTMENT OF CIVIL ENGINEERING

Name of the Program : B. Tech in Civil Engineering
Year &Semester : IV Year I Semester
Name of the Course : ENVIRONMENTAL ENGINEERING
Course : Section: **B**

Academic Year : 2022-23
No of Credits: 03
Code : P18CET19
Regulation : R18

Lesson Plan

Session	Date	Unit	Topic
1	7/7/2022	1	General discussion on pollution - relevance to Environment
2	8/7/2022	1	Introduction to Environmental Engineering
3	9/7/2022	1	Necessity of Protected Water Supply Systems - Water Borne Diseases
4	10/7/2022	1	Per capita Demand - Factors affecting per capita Demand
5	11/7/2022	1	Estimation of Per capita Demand
6	13/7/2022	1	Numerical examples on Per Capita Demand
7	15/7/2022	1	Types of Demand - Factors affecting demand
8	16/7/2022	1	Variations in Water Demand
9	18/7/2022	1	Design period - factros affecting design period
10	19/7/2022	1	Population forecasting
11	20/7/2022	1	Numerical examples on Population forecasting
12	22/7/2022	1	Numerical examples on Population forecasting
13	23/7/2022	1	Class Room Test on Unit - I
			UNIT-2
14	25/7/2022	2	Sources of Water - Types
15	26/7/2022	2	Surface water sources - Lakes, rivers, impounding reservoirs
16	27/7/2022	2	Capacity of storage reservoirs
17	28/7/2022	2	Mass-Curve Analysis
18	29/7/2022	2	Ground water sources - classification - Water bearing formations
19	30/7/2022	2	Springs - Wells
20	2/8/2022	2	Infiltration Galleries - Yield from Infiltration gallaries
21	3/8/2022	2	Comparison of sources with reference to quality and quantity
22	5/8/2022	2	Intake Structures - types - explanation
23	6/8/2022	2	Factors affecting the selection of Intake structures
24	8/8/2022	2	Conveyance of Water: Gravity and Pressure Conduits
25	10/8/2022	2	Class Room Test on Unit - II
			UNIT-3
26	12/8/2022	3	Characteristics of Water - Types
27	13/8/2022	3	Physical Characteristics of Water
28	16/8/2022	3	Physical Characteristics of Water
29	17/8/2022	3	Chemical Characteristics of Water

30	20/8/2022	3	Chemical Characteristics of Water
31	23/8/2022	3	Biological Characteristics of Water
32	24/8/2022	3	Analysis of Water - Inportance and Types of Tests
33	26/8/2022	3	Physical Tests
34	27/8/2022	3	Chemical Tests
35	29/8/2022	3	Biological Tests
36	6/9/2022	3	I.S. Drinking Water Quality Standards
37	7/9/2022	3	WHO Guidelines for Drinking Water
38	9/9/2022	3	Class Room Test on Unit - III
			UNIT-4
39	10/9/2022	4	Treatment of Water - Treatment Plant - Flow Chart
40	12/9/2022	4	Methods of Treatment
41	13/9/2022	4	Theory and Principle of Sedimentation
42	14/9/2022	4	Types of Sedimentation
43	15/9/2022	4	Design of sedimentation - illustrative example
44	16/9/2022	4	Sedimentation with Coagulation
45	17/9/2022	4	Theory of Filtration
46	20/9/2022	4	Types and design of Filters
47	21/9/2022	4	Theory of Disinfection - chlorination, treatment with lime and other Methods
48	23/9/2022	4	Discussion on Chlorination
49	24/9/2022	4	Softening of Water
50	26/9/2022	4	Removal of Colour and Odour
51	27/9/2022	4	Removal of Iron and Manganese
52	28/9/2022	4	Adsorption - Aeration
53	30/9/2022	4	Fluoridation and De fluoridation
54	1/9/2022	4	R O and Unltra Filtration Processes
55	3/10/2022	4	Ion Exchange Process
56	7/10/2022	4	Class Room Test on Unit - IV
			UNIT-5
57	8/10/2022	5	Distribution of Water - Requirements
58	11/10/2022	5	Methods of Distribution System
59	12/10/2022	5	Distribution Network - Layouts
60	14/10/2022	5	Pressures in the Distribution Systems
61	15/10/2022	5	Analysis of Distribution Networks - HardyCross Method
62	17/10/2022	5	Analysis of Distribution Networks - Equivalent Pipe Method
63	18/10/2022	5	Components of Distrubution System - Elements - Sluice Valve, Air Valve
64	21/10/2022	5	Hydrants - Types and description
65	22/10/2022	5	Water Meters
66	27/10/2022	5	Laying of Pipes, Testing of Pipe lines
67	27/10/2022	5	Selection of Pipe Materials
68	28/10/2022	5	Pipe Joints
69	28/102022	5	Class Room Test on Unit - V
70	29/10/2022	5	Conclusion

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unit	I	I	I	II	II	III	III	III	IV	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE – 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in

DEPARTMENT OF CIVIL ENGINEERING

Name of the Program : B. Tech in Civil Engineering
Year &Semester : IV Year I Semester
Name of the Course : ENVIRONMENTAL ENGINEERING
Course : Section: C

Academic Year : 2022-23
No of Credits: 03
Code : P18CET19
Regulation : R18

Lesson Plan

Session	Date	Unit	Topic
1	7/7/2022	1	General discussion on pollution - relevance to Environment
2	8/7/2022	1	Introduction to Environmental Engineering
3	9/7/2022	1	Necessity of Protected Water Supply Systems - Water Borne Diseases
4	9/7/2022	1	Per capita Demand - Factors affecting per capita Demand
5	11/7/2022	1	Estimation of Per capita Demand
6	13/7/2022	1	Numerical examples on Per Capita Demand
7	15/7/2022	1	Types of Demand - Factors affecting demand
8	16/7/2022	1	Variations in Water Demand
9	16/7/2022	1	Design period - factros affecting design period
10	19/7/2022	1	Population forecasting
11	20/7/2022	1	Numerical examples on Population forecasting
12	22/7/2022	1	Numerical examples on Population forecasting
13	23/7/2022	1	Class Room Test on Unit - I
			UNIT-2
14	25/7/2022	2	Sources of Water - Types
15	26/7/2022	2	Surface water sources - Lakes, rivers, impounding reservoirs
16	26/7/2022	2	Capacity of storage reservoirs
17	28/7/2022	2	Mass-Curve Analysis
18	29/7/2022	2	Ground water sources - classification - Water bearing formations
19	30/7/2022	2	Springs - Wells
20	2/8/2022	2	Infiltration Galleries - Yield from Infiltration gallaries
21	3/8/2022	2	Comparison of sources with reference to quality and quantity
22	3/8/2022	2	Intake Structures - types - explanation
23	6/8/2022	2	Factors affecting the selection of Intake structures
24	8/8/2022	2	Conveyance of Water: Gravity and Pressure Conduits
25	10/8/2022	2	Class Room Test on Unit - II
			UNIT-3
26	12/8/2022	3	Characteristics of Water - Types
27	12/8/2022	3	Physical Characteristics of Water
28	16/8/2022	3	Physical Characteristics of Water

29	17/8/2022	3	Chemical Characteristics of Water
30	20/8/2022	3	Chemical Characteristics of Water
31	20/8/2022	3	Biological Characteristics of Water
32	24/8/2022	3	Analysis of Water - Inportance and Types of Tests
33	26/8/2022	3	Physical Tests
34	27/8/2022	3	Chemical Tests
35	29/8/2022	3	Biological Tests
36	6/9/2022	3	I.S. Drinking Water Quality Standards
37	7/9/2022	3	WHO Guidelines for Drinking Water
38	9/9/2022	3	Class Room Test on Unit - III
			UNIT-4
39	12/9/2022	4	Treatment of Water - Treatment Plant - Flow Chart
40	12/9/2022	4	Methods of Treatment
41	13/9/2022	4	Theory and Principle of Sedimentation
42	14/9/2022	4	Types of Sedimentation
43	15/9/2022	4	Design of sedimentation - illustrative example
44	16/9/2022	4	Sedimentation with Coagulation
45	16/9/2022	4	Theory of Filtration
46	20/9/2022	4	Types and design of Filters
47	21/9/2022	4	Theory of Disinfection - chlorination, treatment with lime and other Methods
48	23/9/2022	4	Discussion on Chlorination
49	24/9/2022	4	Softening of Water
50	26/9/2022	4	Removal of Colour and Odour
51	26/9/2022	4	Removal of Iron and Manganese
52	28/9/2022	4	Adsorption - Aeration
53	30/9/2022	4	Fluoridation and De fluoridation
54	1/9/2022	4	R O and Ultra Filtration Processes
55	3/10/2022	4	Ion Exchange Process
56	7/10/2022	4	Class Room Test on Unit - IV
			UNIT-5
57	8/10/2022	5	Distribution of Water - Requirements
58	11/10/2022	5	Methods of Distribution System
59	11/10/2022	5	Distribution Network - Layouts
60	14/10/2022	5	Pressures in the Distribution Systems
61	15/10/2022	5	Analysis of Distribution Networks - HardyCross Method
62	15/10/2022	5	Analysis of Distribution Networks - Equivalent Pipe Method
63	18/10/2022	5	Components of Distrubution System - Elements - Sluice Valve, Air Valve
64	21/10/2022	5	Hydrants - Types and description
65	22/10/2022	5	Water Meters
66	27/10/2022	5	Laying of Pipes, Testing of Pipe lines
67	27/10/2022	5	Selection of Pipe Materials
68	28/10/2022	5	Pipe Joints
69	29/102022	5	Class Room Test on Unit - V
70	29/10/2022	5	Conclusion

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unit	I	I	I	II	II	III	III	III	IV	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE – 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in
DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the programme : B.Tech civil engineering
Name of the Course : Surveying
Course code : P18CET03

A.Y:2019-2020
Year/Sem: II-I
Section : A

S.No	Topic	Required hours	Proposed Date
	Unit – I		
1	Definition-Uses of surveying- overview of plane surveying ,	1	24/06/2019
2	Introduction to chain and tape surveying and their types- Field work with chain	1	25/06/2019
3	Basic problems in chain surveying	1	27/06/2019
4	Obstacles in chain and Ranging ,Objectives	1	28/06/2019
5	Principles and classifications	1	29/06/2019
6	Errors in survey measurements	1	01/07/2019
7	Errors in survey measurements	1	02/07/2019
8	Introduction to plane table surveying Advantages and disadvantages of plane table surveying	1	04/07/2019
9	Introduction to plane table surveying Advantages and disadvantages of plane table surveying	1	05/07/2019
10	Tutorial	1	06/07/2019
11	Class room test	1	08/07/2019
	Unit – II		
12	Compass survey-Meridians	1	09/07/2019
13	Azimuths and Bearings, declination	1	11/07/2019
14	computation of angle	1	12/07/2019
15	Traversing-Purpose-types of traverse-traverse computation-	1	13/07/2019
16	Traversing-Purpose-types of traverse-traverse computation-	1	15/07/2019
17	traverse adjustments Characteristics and Uses of contours	1	16/09/2019
18	traverse adjustments Characteristics and Uses of contours	1	18/07/2019
19	methods of conducting contour surveys.	1	19/07/2019
20	methods of conducting contour surveys.	1	20/07/2019
21	methods of conducting contour surveys.	1	22/07/2019

22	Tutorial	1	23/07/2019
23	Class room test	1	25/07/2019
	Unit – III		
24	Concept and Terminology	1	26/07/2019
25	Levelling Instruments and their Temporary and permanent adjustments	1	27/07/2019
25	method of levelling. Description	1	12/08/2109
26	principles-uses and adjustments	1	13/08/2019
27	temporary and permanent, measurement of horizontal and vertical angles	1	15/08/2019
28	temporary and permanent, measurement of horizontal and vertical angles	1	16/08/2019
29	Principles of Electronic Theodolite	1	17/08/2019
30	Introduction to Trigonometrical leveling	1	26/08/2019
31	Introduction to Trigonometrical leveling	1	27/08/2019
32	Introduction to Trigonometrical leveling	1	29/08/2019
33	Tutorial	1	30/08/2019
34	Class room test	1	31/08/2019
	Unit – IV		
35	Stadia and tangential methods of Tachometry.	1	02/09/2019
36	Stadia and tangential methods of Tachometry.	1	03/09/2019
37	Distance and Elevation formulae for Staff vertical position.	1	05/09/2019
38	Introduction to areas and volumes	1	06/09/2019
39	general methods of determining areas	1	07/09/2019
40	general methods of determining areas	1	09/09/2019
41	volumes Embankments and cutting for a various sections	1	10/09/2019
42	volumes Embankments and cutting for a various sections	1	12/09/2019
43	determination of the capacity of reservoir,	1	13/09/2019
44	volume of barrow pits	1	14/09/2019
45	Class room test	1	16/09/2019
	Unit – V		
46	Types of curves, design and setting out –	1	17/09/2019
47	simple and compound curves.	1	20/09/2019

48	Accessories TOTAL STATION	1	21/09/2019
49	Advantages and Applications,	1	23/09/2019
50	Field Procedure for total station survey,	1	26/09/2019
51	Errors in Total Station Survey	1	27/09/2019
52	Area field survey	1	10/10/2019
53	Introduction to geodetic surveying	1	11/10/2019
54	and Global positioning system	1	14/10/2019
55	Revision	1	15/10/2019
56	Tutorial	1	17/10/2019
57	Class room test	1	18/10/2019

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unit	I	I	I	II	II	II	III	III	IV	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE – 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in
DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the programme : B.Tech civil engineering
Name of the Course :Surveying
Course code : P18CET03

A.Y:2019-2020
Year/Sem: II-I
Section : B

S.No	Topic	Required hours	Proposed Date
	Unit – I		
1	Definition-Uses of surveying- overview of plane surveying ,	1	24/06/2019
2	Introduction to chain and tape surveying and their types- Field work with chain	1	25/06/2019
3	Basic problems in chain surveying	1	27/06/2019
4	Obstacles in chain and Ranging ,Objectives	1	28/06/2019
5	Principles and classifications	1	29/06/2019
6	Errors in survey measurements	1	01/07/2019
7	Errors in survey measurements	1	02/07/2019
8	Introduction to plane table surveying Advantages and disadvantages of plane table surveying	1	04/07/2019
9	Introduction to plane table surveying Advantages and disadvantages of plane table surveying	1	05/07/2019
10	Tutorial	1	06/07/2019
11	Class room test	1	08/07/2019
	Unit – II		
12	Compass survey-Meridians	1	09/07/2019
13	Azimuths and Bearings, declination	1	11/07/2019
14	computation of angle	1	12/07/2019
15	Traversing-Purpose-types of traverse-traverse computation-	1	13/07/2019
16	Traversing-Purpose-types of traverse-traverse computation-	1	15/07/2019
17	traverse adjustments Characteristics and Uses of contours	1	16/09/2019
18	traverse adjustments Characteristics and Uses of contours	1	18/07/2019
19	methods of conducting contour surveys.	1	19/07/2019
20	methods of conducting contour surveys.	1	20/07/2019
21	methods of conducting contour surveys.	1	22/07/2019

48	Accessories TOTAL STATION	1	21/09/2019
49	Advantages and Applications,	1	23/09/2019
50	Field Procedure for total station survey,	1	26/09/2019
51	Errors in Total Station Survey	1	27/09/2019
52	Area field survey	1	10/10/2019
53	Introduction to geodetic surveying	1	11/10/2019
54	and Global positioning system	1	14/10/2019
55	Revision	1	15/10/2019
56	Tutorial	1	17/10/2019
57	Class room test	1	18/10/2019

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unit	I	I	I	II	II	II	III	III	IV	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

48	Accessories TOTAL STATION	1	21/09/2019
49	Advantages and Applications,	1	23/09/2019
50	Field Procedure for total station survey,	1	26/09/2019
51	Errors in Total Station Survey	1	27/09/2019
52	Area field survey	1	10/10/2019
53	Introduction to geodetic surveying	1	11/10/2019
54	and Global positioning system	1	14/10/2019
55	Revision	1	15/10/2019
56	Tutorial	1	17/10/2019
57	Class room test	1	18/10/2019

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unit	I	I	I	II	II	II	III	III	IV	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

22	Tutorial	1	23/07/2019
23	Class room test	1	25/07/2019
	Unit – III		
24	Concept and Terminology	1	26/07/2019
25	Levelling Instruments and their Temporary and permanent adjustments	1	27/07/2019
25	method of levelling. Description	1	12/08/2109
26	principles-uses and adjustments	1	13/08/2019
27	temporary and permanent, measurement of horizontal and vertical angles	1	15/08/2019
28	temporary and permanent, measurement of horizontal and vertical angles	1	16/08/2019
29	Principles of Electronic Theodolite	1	17/08/2019
30	Introduction to Trigonometrical leveling	1	26/08/2019
31	Introduction to Trigonometrical leveling	1	27/08/2019
32	Introduction to Trigonometrical leveling	1	29/08/2019
33	Tutorial	1	30/08/2019
34	Class room test	1	31/08/2019
	Unit – IV		
35	Stadia and tangential methods of Tachometry.	1	02/09/2019
36	Stadia and tangential methods of Tachometry.	1	03/09/2019
37	Distance and Elevation formulae for Staff vertical position.	1	05/09/2019
38	Introduction to areas and volumes	1	06/09/2019
39	general methods of determining areas	1	07/09/2019
40	general methods of determining areas	1	09/09/2019
41	volumes Embankments and cutting for a various sections	1	10/09/2019
42	volumes Embankments and cutting for a various sections	1	12/09/2019
43	determination of the capacity of reservoir,	1	13/09/2019
44	volume of barrow pits	1	14/09/2019
45	Class room test	1	16/09/2019
	Unit – V		
46	Types of curves, design and setting out –	1	17/09/2019
47	simple and compound curves.	1	20/09/2019

22	Tutorial	1	23/07/2019
23	Class room test	1	25/07/2019
	Unit – III		
24	Concept and Terminology	1	26/07/2019
25	Levelling Instruments and their Temporary and permanent adjustments	1	27/07/2019
25	method of levelling. Description	1	12/08/2109
26	principles-uses and adjustments	1	13/08/2019
27	temporary and permanent, measurement of horizontal and vertical angles	1	15/08/2019
28	temporary and permanent, measurement of horizontal and vertical angles	1	16/08/2019
29	Principles of Electronic Theodolite	1	17/08/2019
30	Introduction to Trigonometrical leveling	1	26/08/2019
31	Introduction to Trigonometrical leveling	1	27/08/2019
32	Introduction to Trigonometrical leveling	1	29/08/2019
33	Tutorial	1	30/08/2019
34	Class room test	1	31/08/2019
	Unit – IV		
35	Stadia and tangential methods of Tachometry.	1	02/09/2019
36	Stadia and tangential methods of Tachometry.	1	03/09/2019
37	Distance and Elevation formulae for Staff vertical position.	1	05/09/2019
38	Introduction to areas and volumes	1	06/09/2019
39	general methods of determining areas	1	07/09/2019
40	general methods of determining areas	1	09/09/2019
41	volumes Embankments and cutting for a various sections	1	10/09/2019
42	volumes Embankments and cutting for a various sections	1	12/09/2019
43	determination of the capacity of reservoir,	1	13/09/2019
44	volume of barrow pits	1	14/09/2019
45	Class room test	1	16/09/2019
	Unit – V		
46	Types of curves, design and setting out –	1	17/09/2019
47	simple and compound curves.	1	20/09/2019

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE – 523 272. A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in
DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the programme : B.Tech civil Engineering
Name of the Course : Surveying
Course code : P18CET03

A.Y:2019-2020
Year/Sem: II-I
Section : C

S.No	Topic	Required hours	Proposed Date
	Unit – I		
1	Definition-Uses of surveying- overview of plane surveying ,	1	24/06/2019
2	Introduction to chain and tape surveying and their types- Field work with chain	1	25/06/2019
3	Basic problems in chain surveying	1	27/06/2019
4	Obstacles in chain and Ranging ,Objectives	1	28/06/2019
5	Principles and classifications	1	29/06/2019
6	Errors in survey measurements	1	01/07/2019
7	Errors in survey measurements	1	02/07/2019
8	Introduction to plane table surveying Advantages and disadvantages of plane table surveying	1	04/07/2019
9	Introduction to plane table surveying Advantages and disadvantages of plane table surveying	1	05/07/2019
10	Tutorial	1	06/07/2019
11	Class room test	1	08/07/2019
	Unit – II		
12	Compass survey-Meridians	1	09/07/2019
13	Azimuths and Bearings, declination	1	11/07/2019
14	computation of angle	1	12/07/2019
15	Traversing-Purpose-types of traverse-traverse computation-	1	13/07/2019
16	Traversing-Purpose-types of traverse-traverse computation-	1	15/07/2019
17	traverse adjustments Characteristics and Uses of contours	1	16/09/2019
18	traverse adjustments Characteristics and Uses of contours	1	18/07/2019
19	methods of conducting contour surveys.	1	19/07/2019
20	methods of conducting contour surveys.	1	20/07/2019
21	methods of conducting contour surveys.	1	22/07/2019

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in
DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the programme : B.Tech civil engineering
Name of the Course : Surveying
Course code : P18CET03

A.Y:2020-2021
Year/Sem: II-I
Section : A

S.No	Topic	Required hours	Proposed Date
	Unit – I		
1	Definition-Uses Of Surveying-Overview Of Plane Surveying	1	26/10/2020
2	Introduction To Chain And Tape Surveying And Their Types	1	27/10/2020
3	Field Work With Chain - Basic Problems In Chain Surveying	1	29/10/2020
4	Obstacles In Chain And Ranging ,	1	29/10/2020
5	Objectives, Principles And Classifications	1	30/10/2020
6	Errors In Survey Measurements	1	02/11/2020
7	Introduction To Plane Table Surveying	1	03/11/2020
8	Advantages And Disadvantages Of Plane Table Surveying	1	05/11/2020
9	Advantages And Disadvantages Of Plane Table Surveying	1	05/11/2020
10	Tutorial	1	06/11/2020
11	Class room test	1	09/11/2020
	Unit – II		
12	Compass survey-Meridians, Azimuths	1	10/11/2020
13	Bearings, declination,. -	1	12/11/2020
14	computation of angle	1	12/11/2020
15	Traversing-Purpose	1	13/11/2020
16	types of traverse-	1	16/11/2020
17	traverse computation-	1	17/11/2020
18	traverse adjustments Characteristics	1	19/11/2020
19	and Uses of contours	1	19/11/2020
20	methods of conducting contour surveys.	1	20/11/2020
21	Compass survey-Meridians, Azimuths	1	23/11/2020
22	Tutorial	1	24/11/2020
23	Class room test	1	26/11/2020

	Unit – III		
24	Concept and Terminology	1	26/11/2020
25	, Levelling Instruments, , –	1	27/11/2020
25	measurement of horizontal and vertical angles,	1	30/11/2020
26	Principles of Electronic Theodolite	1	01/12/2020
27	Introduction to Trigonometrical leveling	1	03/12/2020
28	Temporary and permanent adjustments	1	03/12/2020
29	method of levelling.	1	04/12/2020
30	Description, principles,	1	14/12/2020
31	and their, - uses and adjustments –	1	15/12/2020
32	temporary and permanent	1	17/12/2020
33	Tutorial	1	17/12/2020
34	Class room test	1	18/12/2020
	Unit – IV		
35	Stadia and tangential methods of Tachometry..	1	21/12/2020
36	Distance and Elevation formulae for Staff vertical position	1	22/12/2020
37	Introduction to areas and volumes general methods of determining areas and determination of the	1	24/12/2020
38	capacity of reservoir,	1	24/12/2020
39	volumes Embankments and cutting for a various sections (Level section and two level section)	1	28/12/2020
40	volumes Embankments and cutting for a various sections	1	29/12/2020
41	areas and determination of the capacity of reservoir	1	31/12/2020
42	areas and determination of the capacity of reservoir	1	31/12/2020
43	volume of barrow pits.	1	04/01/2021
44	Stadia and tangential methods of Tachometry..	1	05/01/2021
45	Class room test	1	07/01/2021
	Unit – V		
46	Types of curves, design and setting out –	1	08/01/2021
47	simple and compound curves.	1	21/01/2021
48	Accessories TOTAL STATION	1	28/01/2021

49	Advantages and Applications,	1	28/01/2021
50	Field Procedure for total station survey,	1	01/02/2021
51	Errors in Total Station Survey	1	02/02/2021
52	Area field survey	1	04/02/2021
53	Introduction to geodetic surveying	1	08/02/2021
54	and Global positioning system	1	09/02/2021
55	Revision	1	11/02/2021
56	Tutorial	1	11/02/2021
57	Class room test	1	12/02/2021

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unit	I	I	I	II	II	II	III	III	IV	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE - 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in
DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the programme : B.Tech civil engineering
Name of the Course :Surveying
Course code : P18CET03

A.Y:2020-2021
Year/Sem: II-I
Section : B

S.No	Topic	Required hours	Proposed Date
	Unit – I		
1	Definition-Uses Of Surveying-Overview Of Plane Surveying	1	30/10/2020
2	Introduction To Chain And Tape Surveying And Their Types	1	02/11/2020
3	Field Work With Chain - Basic Problems In Chain Surveying	1	03/11/2020
4	Obstacles In Chain And Ranging ,	1	05/11/2020
5	Objectives, Principles And Classifications	1	05/11/2020
6	Errors In Survey Measurements	1	06/11/2020
7	Introduction To Plane Table Surveying	1	09/11/2020
8	Advantages And Disadvantages Of Plane Table Surveying	1	10/11/2020
9	Advantages And Disadvantages Of Plane Table Surveying	1	12/11/2020
10	Tutorial	1	12/11/2020
11	Class room test	1	13/11/2020
	Unit – II		
12	Compass survey-Meridians, Azimuths	1	16/11/2020
13	Bearings, declination,. -	1	17/11/2020
14	computation of angle	1	19/11/2020
15	Traversing-Purpose	1	19/11/2020
16	types of traverse-	1	20/11/2020
17	traverse computation-	1	23/11/2020
18	traverse adjustments Characteristics	1	24/11/2020
19	and Uses of contours	1	26/11/2020
20	methods of conducting contour surveys.	1	26/11/2020
21	Compass survey-Meridians, Azimuths	1	27/11/2020
22	Tutorial	1	30/11/2020
23	Class room test	1	01/12/2020
	Unit – III		

24	Concept and Terminology	1	03/12/2020
25	, Levelling Instruments, , –	1	03/12/2020
25	measurement of horizontal and vertical angles,	1	04/12/2020
26	Principles of Electronic Theodolite	1	14/12/2020
27	Introduction to Trigonometrical leveling	1	15/12/2020
28	Temporary and permanent adjustments	1	17/12/2020
29	method of levelling.	1	17/12/2020
30	Description, principles,	1	18/12/2020
31	and their, - uses and adjustments –	1	21/12/2020
32	temporary and permanent	1	22/12/2020
33	Tutorial	1	24/12/2020
34	Class room test	1	24/12/2020
	Unit – IV		
35	Stadia and tangential methods of Tachometry..	1	28/12/2020
36	Distance and Elevation formulae for Staff vertical position	1	29/12/2020
37	Introduction to areas and volumes general methods of determining areas and determination of the	1	31/12/2020
38	capacity of reservoir,	1	31/12/2020
39	volumes Embankments and cutting for a various sections (Level section and two level section)	1	04/01/2021
40	volumes Embankments and cutting for a various sections	1	05/01/2021
41	areas and determination of the capacity of reservoir	1	07/01/2021
42	areas and determination of the capacity of reservoir	1	08/01/2021
43	volume of barrow pits.	1	21/01/2021
44	Stadia and tangential methods of Tachometry..	1	28/01/2021
45	Class room test	1	28/01/2021
	Unit – V		
46	Types of curves, design and setting out –	1	28/01/2021
47	simple and compound curves.	1	01/02/2021
48	Accessories TOTAL STATION	1	02/02/2021
49	Advantages and Applications,	1	04/02/2021

50	Errors in Total Station Survey	1	08/02/2021
51	Area field survey	1	09/02/2021
52	Introduction to geodetic surveying, and Global positioning system	1	11/02/2021
53	Revision	1	11/02/2021
54	Tutorial	1	12/02/2021
55	Class room test	1	13/02/2021

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unit	I	I	I	II	II	II	III	III	IV	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 www.pace.ac.in
DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the programme : B.Tech civil Engineering
Name of the Course :Surveying
Course code : P18CET03

A.Y:2020-2021
Year/Sem: II-I
Section : C

S.No	Topic	Required hours	Proposed Date
	Unit – I		
1	Definition-Uses Of Surveying-Overview Of Plane Surveying	1	26/10/2020
2	Introduction To Chain And Tape Surveying And Their Types	1	27/10/2020
3	Field Work With Chain - Basic Problems In Chain Surveying	1	29/10/2020
4	Obstacles In Chain And Ranging ,	1	29/10/2020
5	Objectives, Principles And Classifications	1	30/10/2020
6	Errors In Survey Measurements	1	02/11/2020
7	Introduction To Plane Table Surveying	1	03/11/2020
8	Advantages And Disadvantages Of Plane Table Surveying	1	05/11/2020
9	Advantages And Disadvantages Of Plane Table Surveying	1	05/11/2020
10	Tutorial	1	06/11/2020
11	Class room test	1	09/11/2020
	Unit – II		
12	Compass survey-Meridians, Azimuths	1	10/11/2020
13	Bearings, declination,. -	1	12/11/2020
14	computation of angle	1	12/11/2020
15	Traversing-Purpose	1	13/11/2020
16	types of traverse-	1	16/11/2020
17	traverse computation-	1	17/11/2020
18	traverse adjustments Characteristics	1	19/11/2020
19	and Uses of contours	1	19/11/2020
20	methods of conducting contour surveys.	1	20/11/2020
21	Compass survey-Meridians, Azimuths	1	23/11/2020
22	Tutorial	1	24/11/2020
23	Class room test	1	26/11/2020
	Unit – III		
24	Concept and Terminology	1	26/11/2020

25	Levelling Instruments	1	27/11/2020
25	measurement of horizontal and vertical angles,	1	30/11/2020
26	Principles of Electronic Theodolite	1	01/12/2020
27	Introduction to Trigonometrical leveling	1	03/12/2020
28	Temporary and permanent adjustments	1	03/12/2020
29	Method of levelling.	1	04/12/2020
30	Description, principles,	1	14/12/2020
31	and their, - uses and adjustments –	1	15/12/2020
32	temporary and permanent	1	17/12/2020
33	Tutorial	1	17/12/2020
34	Class room test	1	18/12/2020
	Unit – IV		
35	Stadia and tangential methods of Tachometry..	1	21/12/2020
36	Distance and Elevation formulae for Staff vertical position	1	22/12/2020
37	Introduction to areas and volumes general methods of determining areas and determination of the	1	24/12/2020
38	capacity of reservoir,	1	24/12/2020
39	volumes Embankments and cutting for a various sections (Level section and two level section)	1	28/12/2020
40	volumes Embankments and cutting for a various sections	1	29/12/2020
41	areas and determination of the capacity of reservoir	1	31/12/2020
42	areas and determination of the capacity of reservoir	1	31/12/2020
43	volume of barrow pits.	1	04/01/2021
44	Stadia and tangential methods of Tachometry..	1	05/01/2021
45	Class room test	1	07/01/2021
	Unit – V		
46	Types of curves, design and setting out –	1	08/01/2021
47	simple and compound curves.	1	21/01/2021
48	Accessories TOTAL STATION	1	28/01/2021
49	Advantages and Applications,	1	28/01/2021
50	Field Procedure for total station	1	01/02/2021

	survey,		
51	Errors in Total Station Survey	1	02/02/2021
52	Area field survey	1	04/02/2021
53	Introduction to geodetic surveying	1	08/02/2021
54	and Global positioning system	1	09/02/2021
55	Revision	1	11/02/2021
56	Tutorial	1	11/02/2021
57	Class room test	1	12/02/2021

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unit	I	I	I	II	II	II	III	III	IV	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(AUTONOMOUS)
Approved by AICTE and Govt.of Andhra Pradesh, Accredited by NAAC(A Grade) | Recognized under 2(f) & 12(B) of UGC
Permanently Affiliated to JNTUK, Kakinada.A.P. | An ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 Certified Institution
NH-16, Near Valluramma Temple, ONGOLE - 523 272, A.P., India, Ph.: 08592 278315, 9581456310 | www.pace.ac.in

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the Program: B.Tech
Name of the Course & Code: Solid & Hazardous Waste Management
Year & Semester: IV & II

Academic Year:2022-23
Course Code: P18CEE14
Section: A

S.NO	TOPIC	REQUIRED HOURS	PROPOSED DATES
	Unit-I		
1	Introduction	1	6.12.2022
2	Sources, types of solid waste	1	9.12.2022
3	Composition of solid waste	1	12.12.2022
4	Physical Of properties solid waste	1	15.12.2022
5	Chemical Of properties solid waste	1	17.12.2022
6	Biological Of properties solid waste	1	19.12.2022
7	Sources and types of hazardous waste	1	22.12.2022
8	Infectious wastes in	2	24.12.2022
9	Municipal solid wastes	1	26.12.2022
10	Revision Of Unit-I	1	29.12.2022
11	Class Room Test	1	30.12.2022
	Unit-II		
12	Solid Waste Generation and	1	31.12.2022
13	Collection of Solid Waste	1	2.01.2023
14	Handling of Solid Waste	1	3.01.2023
15	Storage of Solid Waste	1	4.01.2023
16	Processing of Solid Waste	1	5.01.2023
17	Transportation of Solid Waste	1	7.01.2023
18	Generation and Collection of Solid Waste	1	9.01.2023
19	Revision Of Unit-II	1	10.01.2023
20	Class Room Test	1	19.01.2023
	Unit-III		
21	Materials Separation and Processing, ,	1	21.01.2023
22	Thermal Conversion,Biological, ,.	1	23.01.2023
23	and Chemical Conversion		24.01.2023
24	Recycling of Material in Municipal Solid Wastes,	1	27.01.2023
25	Land-Filling, Composting,	1	28.01.2023
26	Gas Generation		2.02.2023
27	Closure of Land-Fills &Hazardous Wastes,	1	3.02.2023
28	Fundamentals, Fate		4.02.2023
29	Transport of Contaminants	1	6.02.2023
30	Toxicology Origin		7.02.2023
31	Quantity and Quality Parameters.	1	10.02.2023
32	Revision of unit-III	1	13.02.2023
33	Class room test	1	16.02.2023
	Unit-IV		
34	Composition, Collection, Handling	1	18.02.2023
35	Disposal. Legal aspects of Hazardous Waste Management	1	20.02.2023

36	Collection,	1	23.02.2023
37	Conveyance		25.02.2023
38	Treatment	1	28.02.2023
39	Disposal	1	2.03.2023
40	Revision Of Unit-IV	1	4.03.2023
41	Class Room Test	1	6.03.2023
	Unit-V		
42	Environmental Audits,	1	7.03.2023
43	Pollution Prevention.,		10.03.2023
44	Treatmentand Disposal Methods:	1	14.03.2023
45	Physicochemical Processes		16.03.2023
46	Biological Methods	1	18.03.2023
47	Stabilization & Solidification	1	20.03.2023
48	Thermal Methods, Land Disposal,	1	23.03.2023
49	Site & Subsurface Characterization,.	1	25.03.2023
50	Remedial Technologies	1	27.03.2023
51	Revision Of Unit-VI	1	28.03.2023
52	Class Room Test	1	29.03.2023

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Unit	I	I	I	II	II	II	III	III	III	III	IV	IV	IV	V	V	V

CH - Srikanth

FACULTY

HEAD OF THE DEPARTMENT

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S

PACE INSTITUTE OF TECHNOLOGY & SCIENCES

(AUTONOMOUS)

Approved by AICTE and Govt.of Andhra Pradesh, Accredited by NAAC(A Grade) | Recognized under 2(f) & 12(B) of UGC
Permanently Affiliated to JNTUK, Kakinada.A.P. | An ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 Certified Institution
NH-16, Near Valluramma Temple, ONGOLE - 523 272, A.P., India, Ph.: 08592 278315, 9581456310 | www.pace.ac.in

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the Program: B.Tech
Name of the Course & Code: Solid & Hazardous Waste Management
Year & Semester: IV & II

Academic Year:2022-23
Course Code: P18CEE14
Section: B

S.NO	TOPIC	REQUIRED HOURS	PROPOSED DATES
	Unit-I		
1	Introduction	1	8.12.2022
2	Sources, types of solid waste	1	9.12.2022
3	Composition of solid waste	1	12.12.2022
4	Physical Of properties solid waste	1	15.12.2022
5	Chemical Of properties solid waste	1	17.12.2022
6	Biological Of properties solid waste	1	19.12.2022
7	Sources and types of hazardous waste	1	22.12.2022
8	Infectious wastes in	2	24.12.2022
9	Municipal solid wastes	1	26.12.2022
10	Revision Of Unit-I	1	29.12.2022
11	Class Room Test	1	30.12.2022
	Unit-II		
12	Solid Waste Generation and	1	31.12.2022
13	Collection of Solid Waste	1	2.01.2023
14	Handling of Solid Waste	1	3.01.2023
15	Storage of Solid Waste	1	4.01.2023
16	Processing of Solid Waste	1	5.01.2023
17	Transportation of Solid Waste	1	7.01.2023
18	Generation and Collection of Solid Waste	1	9.01.2023
19	Revision Of Unit-II	1	10.01.2023
20	Class Room Test	1	19.01.2023
	Unit-III		
21	Materials Separation and Processing, ,	1	21.01.2023
22	Thermal Conversion,Biological, ,.	1	23.01.2023
23	and Chemical Conversion		24.01.2023
24	Recycling of Material in Municipal Solid Wastes,	1	27.01.2023
25	Land-Filling, Composting,	1	28.01.2023
26	Gas Generation		2.02.2023
27	Closure of Land-Fills &Hazardous Wastes,	1	3.02.2023
28	Fundamentals, Fate		4.02.2023
29	Transport of Contaminants	1	6.02.2023
30	Toxicology Origin		7.02.2023
31	Quantity and Quality Parameters.	1	10.02.2023
32	Revision of unit-III	1	13.02.2023
33	Class room test	1	16.02.2023
	Unit-IV		
34	Composition, Collection, Handling	1	18.02.2023
35	Disposal. Legal aspects of Hazardous Waste Management	1	20.02.2023

36	Collection,	1	23.02.2023
37	Conveyance		25.02.2023
38	Treatment	1	28.02.2023
39	Disposal	1	2.03.2023
40	Revision Of Unit-IV	1	4.03.2023
41	Class Room Test	1	6.03.2023
	Unit-V		
42	Environmental Audits,	1	7.03.2023
43	Pollution Prevention.,		10.03.2023
44	Treatmentand Disposal Methods:	1	14.03.2023
45	Physicochemical Processes		16.03.2023
46	Biological Methods	1	18.03.2023
47	Stabilization & Solidification	1	20.03.2023
48	Thermal Methods, Land Disposal,	1	23.03.2023
49	Site & Subsurface Characterization,.	1	25.03.2023
50	Remedial Technologies	1	27.03.2023
51	Revision Of Unit-VI	1	28.03.2023
52	Class Room Test	1	30.03.2023

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Unit	I	I	I	II	II	II	III	III	III	III	IV	IV	IV	V	V	V

CH. Srikanth
FACULTY

HEAD OF THE DEPARTMENT
Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S

PACE INSTITUTE OF TECHNOLOGY & SCIENCES

(AUTONOMOUS)

Approved by AICTE and Govt.of Andhra Pradesh, Accredited by NAAC(A Grade) | Recognized under 2(f) & 12(B) of UGC
Permanently Affiliated to JNTUK, Kakinada.A.P. | An ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 Certified Institution
NH-16, Near Valluramma Temple, ONGOLE - 523 272, A.P., India, Ph.: 08592 278315, 9581456310 | www.pace.ac.in

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the Program: B.Tech
Name of the Course & Code: Solid & Hazardous Waste Management
Year & Semester: IV & II

Academic Year:2022-23
Course Code: P18CEE14
Section: C

S.NO	TOPIC	REQUIRED HOURS	PROPOSED DATES
	Unit-I		
1	Introduction	1	7.12.2022
2	Sources, types of solid waste	1	9.12.2022
3	Composition of solid waste	1	12.12.2022
4	Physical Of properties solid waste	1	15.12.2022
5	Chemical Of properties solid waste	1	17.12.2022
6	Biological Of properties solid waste	1	19.12.2022
7	Sources and types of hazardous waste	1	22.12.2022
8	Infectious wastes in	2	24.12.2022
9	Municipal solid wastes	1	26.12.2022
10	Revision Of Unit-I	1	29.12.2022
11	Class Room Test	1	30.12.2022
	Unit-II		
12	Solid Waste Generation and	1	31.12.2022
13	Collection of Solid Waste	1	2.01.2023
14	Handling of Solid Waste	1	3.01.2023
15	Storage of Solid Waste	1	4.01.2023
16	Processing of Solid Waste	1	5.01.2023
17	Transportation of Solid Waste	1	7.01.2023
18	Generation and Collection of Solid Waste	1	9.01.2023
19	Revision Of Unit-II	1	10.01.2023
20	Class Room Test	1	19.01.2023
	Unit-III		
21	Materials Separation and Processing, ,	1	21.01.2023
22	Thermal Conversion,Biological, ,.	1	23.01.2023
23	and Chemical Conversion		24.01.2023
24	Recycling of Material in Municipal Solid Wastes,	1	27.01.2023
25	Land-Filling, Composting,	1	28.01.2023
26	Gas Generation		2.02.2023
27	Closure of Land-Fills &Hazardous Wastes,	1	3.02.2023
28	Fundamentals, Fate		4.02.2023
29	Transport of Contaminants	1	6.02.2023
30	Toxicology Origin		7.02.2023
31	Quantity and Quality Parameters.	1	10.02.2023
32	Revision of unit-III	1	13.02.2023
33	Class room test	1	16.02.2023
	Unit-IV		
34	Composition, Collection, Handling	1	18.02.2023
35	Disposal. Legal aspects of Hazardous Waste Management	1	20.02.2023

36	Collection,	1	23.02.2023
37	Conveyance		25.02.2023
38	Treatment	1	28.02.2023
39	Disposal	1	2.03.2023
40	Revision Of Unit-IV	1	4.03.2023
41	Class Room Test	1	6.03.2023
	Unit-V		
42	Environmental Audits,	1	7.03.2023
43	Pollution Prevention.,		10.03.2023
44	Treatmentand Disposal Methods:	1	14.03.2023
45	Physicochemical Processes		16.03.2023
46	Biological Methods	1	18.03.2023
47	Stabilization & Solidification	1	20.03.2023
48	Thermal Methods, Land Disposal,	1	23.03.2023
49	Site & Subsurface Characterization,.	1	25.03.2023
50	Remedial Technologies	1	27.03.2023
51	Revision Of Unit-VI	1	29.03.2023
52	Class Room Test	1	31.03.2023

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Unit	I	I	I	II	II	II	III	III	III	III	IV	IV	IV	V	V	V

CH. Srikanth

FACULTY

HEAD OF THE DEPARTMENT

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE – 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in
DEPARTMENT OF CIVIL ENGINEERING

Name of the Program : B.Tech Civil Engineering **Academic Year : 2021 - 22**
Name of the course : SOLID AND HAZARDOUS WASTE MANAGEMENT **Year & Semester : IV & II**
Course Code : P18CEE14 **Section : A**

S.NO	TOPIC	REQUIRED HOURS	PROPOSED DATES
	Unit-I		
1	Introduction	1	01-10-2021
2	Sources, types of solid waste	1	04-10-2021
3	Composition of solid waste	1	05-10-2021
4	Physical Of properties solid waste	1	06-10-2021
5	Chemical Of properties solid waste	1	07-10-2021
6	Biological Of properties solid waste	1	08-10-2021
7	Sources and types of hazardous waste	1	09-10-2021
8	Infectious wastes in	2	11-10-2021
9	Municipal solid wastes	1	12-10-2021
10	Revision of unit-I	1	13-10-2021
11	Class room test	1	14-10-2021
	Unit-II		
12	Solid Waste Generation and	3	18-10-2021
13	Collection of Solid Waste	1	21-10-2021
14	Handling of Solid Waste	1	22-10-2021
15	Storage of Solid Waste	1	23-10-2021
16	Processing of Solid Waste	1	25-10-2021
17	Transportation of Solid Waste	1	26-10-2021
18	Generation and Collection of Solid Waste		27-10-2021
19	Revision of unit-II	1	28-10-2021
20	Class room test	1	29-10-2021
	Unit-III		
21	Materials Separation and Processing, ,	1	05-11-2021
22	Thermal Conversion,Biological and Chemical Conversion, ,.	1	06-11-2021
23	Recycling of Material in Municipal Solid Wastes,	1	08-11-2021
24	Land-Filling, Composting, Gas Generation	1	09-11-2021
25	Closure of Land-Fills &Hazardous Wastes,	1	10-11-2021
26	Fundamentals, Fate, and Transport of Contaminants,	1	11-11-2021
27	Toxicology Origin	1	12-11-2021
28	Quantity and Quality Parameters.	1	13-11-2021
29	Revision of unit-III	1	15-11-2021
30	Class room test	1	16-11-2021
	Unit-IV		
31	Composition, Collection, Handling	1	01-12-2021
32	Disposal.Legal aspects of Hazardous Waste Management	1	02-12-2021
33	Collection, Conveyance	1	06-12-2021
34	Treatment	1	07-12-2021

36	Revision of unit-IV	1	11-12-2021
37	Class room test	1	13-12-2021
	Unit-V		
38	Environmental Audits, Pollution Prevention.,	1	24-12-2021
39	Treatmentand Disposal Methods: Physicochemical Processes	1	27-12-2021
40	Biological Methods	1	28-12-2021
41	Stabilization & Solidification	1	29-12-2021
42	Thermal Methods, Land Disposal,	1	30-12-2021
43	Site & Subsurface Characterization,.	1	3-01-2022
44	Remedial Technologies		4-01-2022
45	Revision of unit-VI	1	5-01-2022
47	Class room test	1	6-01-2022

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Unit	I	I	I	II	II	III	III	III	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE – 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in
DEPARTMENT OF CIVIL ENGINEERING

Name of the Program : B.Tech Civil Engineering **Academic Year : 2021 - 22**
Name of the course : SOLID AND HAZARDOUS WASTE MANAGEMENT **Year & Semester : IV & II**
Course Code : P18CEE14 **Section : B**

S.NO	TOPIC	REQUIRED HOURS	PROPOSED DATES
	Unit-I		
1	Introduction	1	02-10-2021
2	Sources, types of solid waste	1	03-10-2021
3	Composition of solid waste	1	05-10-2021
4	Physical Of properties solid waste	1	06-10-2021
5	Chemical Of properties solid waste	1	07-10-2021
6	Biological Of properties solid waste	1	08-10-2021
7	Sources and types of hazardous waste	1	09-10-2021
8	Infectious wastes in	2	10-10-2021
9	Municipal solid wastes	1	11-10-2021
10	Revision of unit-I	1	12-10-2021
11	Class room test	1	14-10-2021
	Unit-II		
12	Solid Waste Generation and	3	18-10-2021
13	Collection of Solid Waste	1	21-10-2021
14	Handling of Solid Waste	1	22-10-2021
15	Storage of Solid Waste	1	23-10-2021
16	Processing of Solid Waste	1	24-10-2021
17	Transportation of Solid Waste	1	25-10-2021
18	Generation and Collection of Solid Waste		27-10-2021
19	Revision of unit-II	1	28-10-2021
20	Class room test	1	29-10-2021
	Unit-III		
21	Materials Separation and Processing, ,	1	04-11-2021
22	Thermal Conversion,Biological and Chemical Conversion, ,.	1	06-11-2021
23	Recycling of Material in Municipal Solid Wastes,	1	07-11-2021
24	Land-Filling, Composting, Gas Generation	1	09-11-2021
25	Closure of Land-Fills &Hazardous Wastes,	1	10-11-2021
26	Fundamentals, Fate, and Transport of Contaminants,	1	11-11-2021
27	Toxicology Origin	1	12-11-2021
28	Quantity and Quality Parameters.	1	13-11-2021
29	Revision of unit-III	1	15-11-2021
30	Class room test	1	16-11-2021
	Unit-IV		
31	Composition, Collection, Handling	1	01-12-2021
32	Disposal.Legal aspects of Hazardous Waste Management	1	02-12-2021
33	Collection, Conveyance	1	06-12-2021
34	Treatment	1	07-12-2021
35	Disposal	1	10-12-2021

36	Revision of unit-IV	1	11-12-2021
37	Class room test	1	13-12-2021
	Unit-V		
38	Environmental Audits, Pollution Prevention.,	1	24-12-2021
39	Treatmentand Disposal Methods: Physicochemical Processes	1	27-12-2021
40	Biological Methods	1	28-12-2021
41	Stabilization & Solidification	1	29-12-2021
42	Thermal Methods, Land Disposal,	1	30-12-2021
43	Site & Subsurface Characterization,.	1	3-01-2022
44	Remedial Technologies		4-01-2022
45	Revision of unit-VI	1	5-01-2022
47	Class room test	1	6-01-2022

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Unit	I	I	I	II	II	III	III	III	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE – 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in
DEPARTMENT OF CIVIL ENGINEERING

Name of the Program : B.Tech Civil Engineering **Academic Year : 2021 - 22**
Name of the course : SOLID AND HAZARDOUS WASTE MANAGEMENT **Year & Semester : IV & II**
Course Code : P18CEE14 **Section : C**

S.NO	TOPIC	REQUIRED HOURS	PROPOSED DATES
	Unit-I		
1	Introduction	1	01-10-2021
2	Sources, types of solid waste	1	04-10-2021
3	Composition of solid waste	1	05-10-2021
4	Physical Of properties solid waste	1	06-10-2021
5	Chemical Of properties solid waste	1	07-10-2021
6	Biological Of properties solid waste	1	08-10-2021
7	Sources and types of hazardous waste	1	09-10-2021
8	Infectious wastes in	2	11-10-2021
9	Municipal solid wastes	1	12-10-2021
10	Revision of unit-I	1	13-10-2021
11	Class room test	1	14-10-2021
	Unit-II		
12	Solid Waste Generation and	3	18-10-2021
13	Collection of Solid Waste	1	21-10-2021
14	Handling of Solid Waste	1	22-10-2021
15	Storage of Solid Waste	1	23-10-2021
16	Processing of Solid Waste	1	25-10-2021
17	Transportation of Solid Waste	1	26-10-2021
18	Generation and Collection of Solid Waste		27-10-2021
19	Revision of unit-II	1	28-10-2021
20	Class room test	1	29-10-2021
	Unit-III		
21	Materials Separation and Processing, ,	1	05-11-2021
22	Thermal Conversion,Biological and Chemical Conversion, ,.	1	06-11-2021
23	Recycling of Material in Municipal Solid Wastes,	1	08-11-2021
24	Land-Filling, Composting, Gas Generation	1	09-11-2021
25	Closure of Land-Fills &Hazardous Wastes,	1	10-11-2021
26	Fundamentals, Fate, and Transport of Contaminants,	1	11-11-2021
27	Toxicology Origin	1	12-11-2021
28	Quantity and Quality Parameters.	1	13-11-2021
29	Revision of unit-III	1	15-11-2021
30	Class room test	1	16-11-2021
	Unit-IV		
31	Composition, Collection, Handling	1	01-12-2021
32	Disposal.Legal aspects of Hazardous Waste Management	1	02-12-2021
33	Collection, Conveyance	1	06-12-2021
34	Treatment	1	07-12-2021

36	Revision of unit-IV	1	11-12-2021
37	Class room test	1	13-12-2021
	Unit-V		
38	Environmental Audits, Pollution Prevention.,	1	24-12-2021
39	Treatmentand Disposal Methods: Physicochemical Processes	1	27-12-2021
40	Biological Methods	1	28-12-2021
41	Stabilization & Solidification	1	29-12-2021
42	Thermal Methods, Land Disposal,	1	30-12-2021
43	Site & Subsurface Characterization,.	1	3-01-2022
44	Remedial Technologies		4-01-2022
45	Revision of unit-VI	1	5-01-2022
47	Class room test	1	6-01-2022

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Unit	I	I	I	II	II	III	III	III	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S

PACE INSTITUTE OF TECHNOLOGY & SCIENCES

(AUTONOMOUS)

Approved by AICTE and Govt. of Andhra Pradesh, Accredited by NAAC(A Grade) | Recognized under 2(f) & 12(B) of UGC
Permanently Affiliated to JNTUK, Kakinada. A.P. | ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 Certified Institution
NH-16, Near Valluramma Temple, ONGOLE - 523 272, A.P., India, Ph.: 08592 278315, 9581456310 | www.pace.ac.in

Lesson plan

Year/Sem: IV-I **Sub: REMOTE SENSING & GIS** **A.Y:2023-24**

S.No	Topic	Required classes	Proposed Date
	Unit – I		
1	Basic concepts of remote sensing, electromagnetic radiation	2	10/07/2023
2	Electromagnetic spectrum, interaction with atmosphere	2	13/07/2023
3	Energy interaction with the earth surfaces, Characteristics of remote sensing systems	2	17/07/2023
4	Introduction to Sensors, Types of sensors	2	19/07/2023
5	Airborne remote sensing, Space borne remote sensing	1	21/07/2023
6	Image data characteristics	1	24/07/2023
7	Digital image data formats-band interleaved by pixel, band interleaved by line, band sequential	2	25/07/2023
8	IRS, LANDSAT, SPOT	2	27/07/2023
9	Revision	1	28/07/2023
10	Class room test	1	31/07/2023
	Unit – II		
11	Introduction to image analysis	1	01/08/2023
12	Elements of visual interpretations	1	02/08/2023
13	Digital image processing-image preprocessing	1	03/08/2023
14	Image enhancement	2	04/08/2023
15	Image classification	1	08/08/2023
16	Supervised classification	1	09/08/2023
17	Unsupervised classification	1	10/08/2023
18	Revision	1	11/08/2023
19	Class room test	1	14/08/2023
	Unit – III		
20	Introduction to GIS	1	16/08/2023
21	Key components of GIS	2	17/08/2023
22	Application areas of GIS	2	21/08/2023
23	Map projections	2	23/08/2023
24	Spatial data input	2	25/08/2023
25	Raster data models	2	29/08/2023
26	Vector data models	2	31/09/2023
27	Revision	1	11/09/2023
28	Class room test	1	12/09/2023
	Unit – IV		
29	Introduction, Overlay function	1	13/09/2023
30	Vector overlay operations, Raster overlay operations	2	14/09/2023
31	Arithmetic operators, Comparison and logical operators	2	18/09/2023
32	Conditional expressions, Overlay using a decision table	2	21/09/2023
33	Network analysis-Optimal path finding, Network allocation	2	25/09/2023
34	Network tracing and Buffer analysis	2	27/09/2023
35	Revision	1	03/10/2023
36	Class room test	1	04/10/2023
	Unit – V		
37	Land cover and land use	1	05/10/2023
38	Agriculture	1	09/10/2023
39	Forestry	1	10/10/2023
40	Geology, Geomorphology	1	11/10/2023

41	Urban applications	1	13/10/2023
42	Flood zoning and mapping	1	16/10/2023
43	Ground water prospects and Potential recharge zones	1	17/10/2023
44	Watershed management.	1	19/10/2023
45	Revision	1	30/10/2023
46	Class room test	1	31/10/2023

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Unit	I	I	I	II	II	III	III	IV	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(AUTONOMOUS)
Approved by AICTE and Govt.of Andhra Pradesh, Accredited by NAAC(A Grade) | Recognized under 2(f) & 12(B) of UGC
Permanently Affiliated to JNTUK, Kakinada.A.P. | An ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 Certified Institution
NH-16, Near Valluramma Temple, ONGOLE - 523 272, A.P., India, Ph.: 08592 278315, 9581456310 | www.pace.ac.in

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the Program: B.Tech
Name of the Course & Code: Remote Sensing & GIS Applications
Year & Semester: IV & I

Academic Year:2022-23
Course Code: P18CET18
Section: A

S.NO	TOPIC	REQUIRED HOURS	PROPOSED DATES
	Unit-I		
1	Introduction To Remote Sensing: Basic Concepts Of Remote Sensing	1	04-07-2022
2	Electromagnetic Radiation, Electromagnetic Spectrum	1	05-07-2022
3	Interaction With Atmosphere	1	06-07-2022
4	Energy Interaction With The Earth Surfaces	1	07-07-2022
5	Characteristics Of Remote Sensing Systems	1	08-07-2022
6	Sensors And Platforms: Introduction, Types Of Sensors	1	11-07-2022
7	Airborne Remote Sensing, Space Borne Remote Sensing	1	12-07-2022
8	Image Data Characteristics, Digital Image Data Formats	2	13-07-2022
9	IRS, LANDSAT, SPOT	1	15-07-2022
10	Revision Of Unit-I	1	18-07-2022
11	Class Room Test	1	19-07-2022
	Unit-II		
12	Image Analysis: Introduction	3	20-07-2022
13	Elements Of Visual Interpretations Digital Image Processing	1	25-07-2022
14	Image Preprocessing	1	26-07-2022
15	Image Enhancement	1	27-08-2022
16	Image Classification	1	28-07-2022
17	Supervised Classification	1	29-07-2022
18	Unsupervised Classification	1	03-08-2022
17	Revision Of Unit-II	1	04-08-2022
19	Class Room Test	1	05-08-2022
	Unit-III		
20	Geographic Information System: Introduction	1	11-08-2022
21	Key Components Of Gis	1	12-08-2022
22	Application Areas Of Gis	1	18-08-2022
23	Map Projections	1	19-08-2022
24	Data Entry And Preparation: Spatial Data Input	1	23-08-2022
25	Raster Data Models	1	05-09-2022
26	Vector Data Models	1	7-09-2022
27	Revision of unit-III	1	8-09-2022
28	Class room test	1	12-09-2022
	Unit-IV		
29	Spatial Data Analysis: Introduction	1	13-09-2022
30	Overlay Function-Vector Overlay Operations	1	14-09-2022
31	Raster Overlay Operations, Arithmetic Operators	1	15-09-2022
32	Comparison And Logical Operators	1	16-09-2022
33	Conditional Expressions	1	19-09-2022

34	Overlay Using A Decision Table	1	20-09-2022
35	Network Analysis-Optimal Path Finding	1	21-09-2022
36	Network Allocation	1	22-09-2022
37	Network Tracing And Buffer Analysis	1	23-09-2022
38	Revision Of Unit-IV	1	26-09-2022
39	Class Room Test	1	27-09-2022
	Unit-V		
40	RS And GIS Applications	1	28-09-2022
41	Land Cover And Land Use	1	29-05-2022
42	Agriculture, Forestry,	1	04-10-2022
43	Geology ,Geomorphology	1	18-10-2022
44	Urban Applications	1	19-10-2022
45	Flood Zoning And Mapping	1	20-10-2022
46	Ground Water Prospects And Potential Recharge Zones,	1	21-10-2022
47	Ground Water Prospects And Potential Recharge Zones,	1	24-10-2022
48	Watershed Management	1	26-10-2022
49	Revision Of Unit-VI	1	27-10-2022
50	Class Room Test	1	28-10-2022

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unit	I	I	I	II	II	III	III	III	IV	IV	IV	V	V	V

M. V. Nirmala Rani.

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S

PACE INSTITUTE OF TECHNOLOGY & SCIENCES

(AUTONOMOUS)

Approved by AICTE and Govt.of Andhra Pradesh, Accredited by NAAC(A Grade) | Recognized under 2(f) & 12(B) of UGC
Permanently Affiliated to JNTUK, Kakinada.A.P. | An ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 Certified Institution
NH-16, Near Valluramma Temple, ONGOLE - 523 272, A.P., India, Ph.: 08592 278315, 9581456310 | www.pace.ac.in

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the Program: B.Tech
Name of the Course & Code: Remote Sensing & GIS Applications
Year & Semester: IV & I

Academic Year:2022-23
Course Code: P18CET18
Section: B

S.NO	TOPIC	REQUIRED HOURS	PROPOSED DATES
	Unit-I		
1	Introduction To Remote Sensing: Basic Concepts Of Remote Sensing	1	06-07-2022
2	Electromagnetic Radiation, Electromagnetic Spectrum	1	07-07-2022
3	Interaction With Atmosphere	1	08-07-2022
4	Energy Interaction With The Earth Surfaces	1	11-07-2022
5	Characteristics Of Remote Sensing Systems	1	12-07-2022
6	Sensors And Platforms: Introduction, Types Of Sensors	1	13-07-2022
7	Airborne Remote Sensing, Space Borne Remote Sensing	1	15-07-2022
8	Image Data Characteristics, Digital Image Data Formats	2	18-07-2022
9	IRS, LANDSAT, SPOT	1	19-07-2022
10	Revision Of Unit-I	1	20-07-2022
11	Class Room Test	1	21-07-2022
	Unit-II		
12	Image Analysis: Introduction	3	22-07-2022
13	Elements Of Visual Interpretations Digital Image Processing	1	25-07-2022
14	Image Preprocessing	1	26-07-2022
15	Image Enhancement	1	27-08-2022
16	Image Classification	1	28-07-2022
17	Supervised Classification	1	29-07-2022
18	Unsupervised Classification	1	03-08-2022
17	Revision Of Unit-II	1	04-08-2022
19	Class Room Test	1	05-08-2022
	Unit-III		
20	Geographic Information System: Introduction	1	11-08-2022
21	Key Components Of Gis	1	12-08-2022
22	Application Areas Of Gis	1	18-08-2022
23	Map Projections	1	19-08-2022
24	Data Entry And Preparation: Spatial Data Input	1	23-08-2022
25	Raster Data Models	1	05-09-2022
26	Vector Data Models	1	7-09-2022
27	Revision of unit-III	1	8-09-2022
28	Class room test	1	12-09-2022
	Unit-IV		
29	Spatial Data Analysis: Introduction	1	13-09-2022
30	Overlay Function-Vector Overlay Operations	1	14-09-2022
31	Raster Overlay Operations, Arithmetic Operators	1	15-09-2022
32	Comparison And Logical Operators	1	16-09-2022
33	Conditional Expressions	1	19-09-2022

34	Overlay Using A Decision Table	1	20-09-2022
35	Network Analysis-Optimal Path Finding	1	21-09-2022
36	Network Allocation	1	22-09-2022
37	Network Tracing And Buffer Analysis	1	23-09-2022
38	Revision Of Unit-IV	1	26-09-2022
39	Class Room Test	1	27-09-2022
	Unit-V		
40	RS And GIS Applications	1	28-09-2022
41	Land Cover And Land Use	1	29-05-2022
42	Agriculture, Forestry,	1	04-10-2022
43	Geology ,Geomorphology	1	18-10-2022
44	Urban Applications	1	19-10-2022
45	Flood Zoning And Mapping	1	20-10-2022
46	Ground Water Prospects And Potential Recharge Zones,	1	21-10-2022
47	Ground Water Prospects And Potential Recharge Zones,	1	24-10-2022
48	Watershed Management	1	26-10-2022
49	Revision Of Unit-VI	1	27-10-2022
50	Class Room Test	1	28-10-2022

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unit	I	I	I	II	II	III	III	III	IV	IV	IV	V	V	V

V. Rathnadevi
Faculty

Head of the Department

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(AUTONOMOUS)
Approved by AICTE and Govt.of Andhra Pradesh, Accredited by NAAC(A Grade) | Recognized under 2(f) & 12(B) of UGC
Permanently Affiliated to JNTUK, Kakinada.A.P. | An ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 Certified Institution
NH-16, Near Valluramma Temple, ONGOLE - 523 272, A.P., India, Ph.: 08592 278315, 9581456310 | www.pace.ac.in

DEPARTMENT OF CIVIL ENGINEERING

LESSON PLAN

Name of the Program: B.Tech
Name of the Course & Code: Remote Sensing & GIS Applications
Year & Semester: IV & I

Academic Year:2022-23
Course Code: P18CET18
Section: C

S.NO	TOPIC	REQUIRED HOURS	PROPOSED DATES
	Unit-I		
1	Introduction To Remote Sensing: Basic Concepts Of Remote Sensing	1	05-07-2022
2	Electromagnetic Radiation, Electromagnetic Spectrum	1	06-07-2022
3	Interaction With Atmosphere	1	07-07-2022
4	Energy Interaction With The Earth Surfaces	1	08-07-2022
5	Characteristics Of Remote Sensing Systems	1	11-07-2022
6	Sensors And Platforms: Introduction, Types Of Sensors	1	12-07-2022
7	Airborne Remote Sensing, Space Borne Remote Sensing	1	13-07-2022
8	Image Data Characteristics, Digital Image Data Formats	2	15-07-2022
9	IRS, LANDSAT, SPOT	1	18-07-2022
10	Revision Of Unit-I	1	19-07-2022
11	Class Room Test	1	20-07-2022
	Unit-II		
12	Image Analysis: Introduction	3	21-07-2022
13	Elements Of Visual Interpretations Digital Image Processing	1	25-07-2022
14	Image Preprocessing	1	26-07-2022
15	Image Enhancement	1	27-08-2022
16	Image Classification	1	28-07-2022
17	Supervised Classification	1	29-07-2022
18	Unsupervised Classification	1	03-08-2022
17	Revision Of Unit-II	1	04-08-2022
19	Class Room Test	1	05-08-2022
	Unit-III		
20	Geographic Information System: Introduction	1	11-08-2022
21	Key Components Of Gis	1	12-08-2022
22	Application Areas Of Gis	1	18-08-2022
23	Map Projections	1	19-08-2022
24	Data Entry And Preparation: Spatial Data Input	1	23-08-2022
25	Raster Data Models	1	05-09-2022
26	Vector Data Models	1	7-09-2022
27	Revision of unit-III	1	8-09-2022
28	Class room test	1	12-09-2022
	Unit-IV		
29	Spatial Data Analysis: Introduction	1	13-09-2022
30	Overlay Function-Vector Overlay Operations	1	14-09-2022
31	Raster Overlay Operations, Arithmetic Operators	1	15-09-2022
32	Comparison And Logical Operators	1	16-09-2022
33	Conditional Expressions	1	19-09-2022

34	Overlay Using A Decision Table	1	20-09-2022
35	Network Analysis-Optimal Path Finding	1	21-09-2022
36	Network Allocation	1	22-09-2022
37	Network Tracing And Buffer Analysis	1	23-09-2022
38	Revision Of Unit-IV	1	26-09-2022
39	Class Room Test	1	27-09-2022
	Unit-V		
40	RS And GIS Applications	1	28-09-2022
41	Land Cover And Land Use	1	29-05-2022
42	Agriculture, Forestry,	1	04-10-2022
43	Geology ,Geomorphology	1	18-10-2022
44	Urban Applications	1	19-10-2022
45	Flood Zoning And Mapping	1	20-10-2022
46	Ground Water Prospects And Potential Recharge Zones,	1	21-10-2022
47	Ground Water Prospects And Potential Recharge Zones,	1	24-10-2022
48	Watershed Management	1	26-10-2022
49	Revision Of Unit-VI	1	27-10-2022
50	Class Room Test	1	28-10-2022

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Unit	I	I	I	II	II	III	III	III	IV	IV	IV	V	V	V

C H. Sri Lata

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

Lesson plan

Year/Sem: IV-II **Sub: REMOTE SENSING & GIS** **A.Y:2021-22**

S.No	Topic	Required classes	Proposed Date
	Unit – I		
1	Basic concepts of remote sensing, electromagnetic radiation	1	01/10/2021
2	Electromagnetic spectrum, interaction with atmosphere	2	04/10/2021
3	Energy interaction with the earth surfaces, Characteristics of remote sensing systems	1	06/10/2021
4	Introduction to Sensors, Types of sensors	1	07/10/2021
5	Airborne remote sensing, Space borne remote sensing	1	11/10/2021
6	Image data characteristics	1	12/10/2021
7	Digital image data formats-band interleaved by pixel, band interleaved by line, band sequential	1	18/10/2021
8	IRS, LANDSAT, SPOT	1	20/10/2021
9	Class room test	1	21/10/2021
	Unit – II		
10	Introduction to image analysis	1	22/10/2021
11	Elements of visual interpretations	1	25/10/2021
12	Digital image processing-image preprocessing	1	26/10/2021
13	Image enhancement	2	27/10/2021
14	Image classification	1	29/10/2021
15	Supervised classification	1	01/11/2021
16	Unsupervised classification	1	02/11/2021
17	Class room test	1	03/11/2021
	Unit – III		
18	Introduction to GIS	1	05/11/2021
19	Key components of GIS	1	08/11/2021
20	Application areas of GIS	1	09/11/2021
21	Map projections	1	10/11/2021
22	Spatial data input	1	11/11/2021
23	Raster data models	1	12/11/2021
24	Vector data models	2	15/11/2021
25	Class room test	1	17/11/2021
	Unit – IV		
26	Introduction, Overlay function	1	18/11/2021
27	Vector overlay operations, Raster overlay operations	2	29/11/2021
28	Arithmetic operators, Comparison and logical operators	1	01/12/2021
29	Conditional expressions, Overlay using a decision table	1	02/12/2021
30	Network analysis-Optimal path finding, Network allocation	2	03/12/2021
31	Network tracing and Buffer analysis	2	07/12/2021
32	Class room test	1	09/12/2021
	Unit – V		
33	Land cover and land use	1	13/12/2021
34	Agriculture	1	14/12/2021
35	Forestry	1	15/12/2021
36	Geology, Geomorphology	1	16/12/2021

37	Urban applications	1	20/12/2021
38	Flood zoning and mapping	1	21/12/2021
39	Ground water prospects and Potential recharge zones	2	27/12/2021
40	Watershed management.	1	02/01/2022
41	Class room test	1	03/01/2022

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Unit	I	I	I	II	II	III	III	IV	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.

SRINIVASA EDUCATIONAL SOCIETY'S
PACE INSTITUTE OF TECHNOLOGY & SCIENCES
(Autonomous)
Permanently Affiliated to JNTUK, Kakinada. A. P, An ISO 9001: 2015 Certified Institution
Approved by AICTE, Accredited by NAAC(A Grade), Recognized under 2(f) & 12(B) of UGC
NH-16, Near Valluramma Temple, ONGOLE – 523 272, A.P., INDIA, Ph: 08592 278315, 9581456310 |www.pace.ac.in
DEPARTMENT OF CIVIL ENGINEERING

Name of the Program : B.Tech Civil Engineering **Academic Year : 2022 - 23**
Name of the course : GROUND WATER ENGINEERING **Year & Semester : III & II**
Course Code : P18CEE05 **Section : A**

S.No	Topic	Required classes	
	Unit – I		
1	Introduction	1	19/01/2023
2	Groundwater in the hydrologic cycle, Aquiferparameters and their determination,	1	20/01/2023
3	groundwater occurrence, forms of subsurface water,	1	21/01/2023
4	Aquiferparameters and their determination,	1	23/01/2023
5	General groundwater flow equation.	1	24/01/2023
6	Concept of artificial recharge of groundwater	1	25/01/2023
7	Recharge methods-basin, stream-channel	1	27/01/2023
8	flooding and recharge well methods	2	28/01/2023
9	Induced recharge	1	30/01/2023
10	Tutorial	1	31/01/2023
11	Class room test	1	01/02/2023
	Unit – II		
12	Well Hydraulics Steady radial flow and unsteady radial flow to a well in confined and unconfined aquifers,.	2	02/02/2023 to 03/02/2023
13	unsteady radial flow to a well in confined and unconfined aquifers,.	1	04/02/2023
14	Theis solution, Jacob and Chow"s methods	2	06/02/2023 to 07/02/2023
15	Leaky aquifers	2	08/02/2023 to 09/02/2023
16	Saline Water Intrusion Occurrence of saline water intrusion	2	10/02/2023 to 11/02/2023
17	Ghyben- Herzberg relation	2	13/02/2023to 14/02/2023
18	Shape of interface,	2	15/02/2023 to16/02/2023
19	control of saline water intrusion	2	17/02/2023to 20/02/2023
20	Tutorial	1	21/02/2023
21	Class room test	1	22/02/2023
	Unit – III		

22	Well Construction and Development Water wells, drilling methods-rotary drilling,	1	23/02/2023
23	percussion drilling, well construction-installation of well screens-pull-back method,	2	24/02/2023 to25/02/2023
24	open- hole, bail- down and wash-down methods, well development, mechanical surging using compressed air, high velocity jetting of wate	2	27/02/2023to 28/02/2023
25	over pumping and back washing, well completion, well disinfection, well maintenance	2	01/03/2023 to02/03/2023
26	Well Design Water well design-well diameter, well depth, well screen-screen length	2	06/03/2023to 07/03/2023
27	slot size, screen diameter and screen selection, design of collector wells, infiltration gallery.	2	08/03/2023to 09/03/2023
28	Tutorial	1	10/03/2023
29	Class room test	1	11/03/2023
	Unit – IV		
30	Geophysics	2	20/03/2023to 21/03/2023
31	Surface methods of exploration of groundwater	2	22/03/2023to 23/03/2023
32	Electrical resistivity	2	24/03/2023to 25/03/2023
33	Electrical resistivity	2	27/03/2023to 28/03/2023
34	Seismic refraction methods	2	29/03/2023to 31/03/2023
35	Sub-surface methods	2	01/04/2023to 03/04/2023
36	Geophysical logging and resistivity logging	2	04/04/2023to 05/04/2023
37	Tutorial	1	06/04/2023
38	Class room test	1	10/04/2023
	Unit – V		
39	Groundwater Modeling and Management Basic principles of groundwater modeling	1	11/04/2023
40	An alogmodels-viscous fluid models and membrane models,	2	12/04/2023 to13/04/2023
41	Bigital models-Finite difference and finite element models, Concepts of groundwater management,	2	18/04/2023to 19/04/2023
42	basin management by conjunctive use-case studies	2	25/04/2023to 26/04/2023
43	Tutorial	1	28/04/2023
44	Class room test	1	01/05/2023

Course Delivery Plan

Week	1	2	3	4	5	6	7	8	9	10	11	12	13
Unit	I	I	I	II	II	III	III	III	IV	IV	V	V	V

Faculty

Head of the Department

Head of the Department
CIVIL ENGINEERING
PACE Institute of Technology & Sciences
ONGOLE-523 272.