



**ASIAN SCHOOL OF TECHNOLOGY,  
BHUBANESWAR**

**DEPARTMENT OF CIVIL ENGINEERING**

**LESSON PLAN**

Discipline: Civil engineering	Semester : 3 <sup>rd</sup>	No. of periods available: 51	Name of Teaching Faculty: Swatishree Lenka
Subject: Estimation & Cost Evaluation-II	No. of Days/ per week class allotted : 4 periods per week		No. of weeks : 13
Week	Class Day		Topics to be covered
1 <sup>st</sup>	1 <sup>st</sup>	1	Introduction to different types of culverts.
	2 <sup>nd</sup>	1	Elaboration about slab culvert with right angled type wing wall with the help of model.
	3 <sup>rd</sup>	1	Detailed estimate of a RCC slab culvert with right angled wing walls
	4 <sup>th</sup>	1	Discussion about the previous knowledge about different slabs.
2 <sup>nd</sup>	5 <sup>th</sup>	1	Explanation by the help of model
	6 <sup>th</sup>	1	Estimation of bar bending schedule for one way slab
	7 <sup>th</sup>	1	Introduction of two way slab with the help of detail drawing.
	8 <sup>th</sup>	1	Estimation of bar bending schedule for two way slab
3 <sup>rd</sup>	9 <sup>th</sup>	1	Detail explanation and calculation for slab
	10 <sup>th</sup>	1	Construction site visit for practical knowledge
	11 <sup>th</sup>	1	RCC Hume pipe culvert with splayed angled

			wing wall detail drawing discussion.
	12 <sup>th</sup>	1	Estimation of Hume pipe culvert with splayed wing wall.
4 <sup>th</sup>	13 <sup>th</sup>	1	<b>Estimate of irrigation structures</b> Detailed drawing elaboration of simple type of
	14 <sup>th</sup>	1	Detail estimation of vertical fall(only Earth work)
	15 <sup>th</sup>	1	Estimation of vertical fall(concrete in foundation/W)
	16 <sup>th</sup>	1	1 <sup>st</sup> class brick work in cement mortar
5 <sup>th</sup>	17 <sup>th</sup>	1	Pointing work
	18 <sup>th</sup>	1	Detailed drawing elaboration of drainage siphon from B.N dutta.
	19 <sup>th</sup>	1	Estimation of drainage syphon
	20 <sup>th</sup>	1	QUIZ TEST
6 <sup>th</sup>	21 <sup>st</sup>	1	Detailed drawing elaboration of drainage siphon from M.chakraborty.
	22 <sup>nd</sup>	1	Estimation of drainage syphonE/W,cement concrete
	23 <sup>rd</sup>	1	B/W,pointing
	24 <sup>th</sup>	1	<b>Detailed estimate of roads</b> Detail drawing discussion of road cutting.
7 <sup>th</sup>	25 <sup>th</sup>	1	Detailed estimate of a flexible pavement in cutting
	26 <sup>th</sup>	1	Detail drawing discussion of road in banking.
	27 <sup>th</sup>	1	Detailed estimate of a flexible pavement in banking.
	28 <sup>th</sup>	1	Introduction to water bound macadam road detail drawing discussion

8 <sup>th</sup>	29 <sup>th</sup>	1	Detail estimation of water bound macadam road.
	30 <sup>th</sup>	1	Introduction to septic tank with the help of drawing.
	31 <sup>st</sup>	1	Detailed estimate of septic tank and soak pit for 50 users
	32 <sup>nd</sup>	1	Quiz
9 <sup>th</sup>	33 <sup>rd</sup>	1	<b>Miscellaneous estimates</b> Introduction of tube well
	34 <sup>th</sup>	1	Estimation of tube well various parts.
	35 <sup>th</sup>	1	pile and pile cap.detail drawing elaboration.
	36 <sup>th</sup>	1	Tube well, Piles and Pile cap
10 <sup>th</sup>	37 <sup>th</sup>	1	Detail drawing elaboration of footings
	38 <sup>th</sup>	1	Isolated and combined footings
	39 <sup>th</sup>	1	<b>PWD account works</b> Classification of work-original, major, petty, repair
	40	1	Concept of Method of execution of works through the contractors and department, contract and agreement, work order
11 <sup>th</sup>	41 <sup>st</sup>	1	Types of contract, piece work agreement
	42 <sup>nd</sup>	1	CLASS TEST
	43 <sup>rd</sup>	1	Administrative approval, technical sanction, tender, preparation of notice inviting tender, quotations, earnest money
	44 <sup>th</sup>	1	E-tendering, security deposit, advance

			payment, intermediate payment
12 <sup>th</sup>	45 <sup>th</sup>	1	Final payment, running bill, final bill, regular and temporary establishment, cash
	46 <sup>th</sup>	1	Major & subhead of account, temporary advance (imprest money), supervision charges, suspense account,
	47 <sup>th</sup>	1	Debit, credit, book transfer, voucher and related accounts
	48 <sup>th</sup>	1	Measurement book use & maintenance, procedure of marking entries of measurement of work and supply of materials
13 <sup>th</sup>	49 <sup>th</sup>	1	Muster roll : Its preparation & use for making payment of pay & wages , Acquittance Roll : Its preparation & use for making payment of pay & wages
	50 <sup>th</sup>	1	Labour & labour report, method of labour payment use of forms and necessity of Submission, Classification of stores, receipt / issue statement on standard form
	51 <sup>st</sup>	1	method of preparation of stock account, preparation and submission of returns verification of stocks, shortage

			and excess
	52 <sup>nd</sup>	1	Building BYLAWS and REGULATORY Bodies Development authorities, types and their levels, RERA etc.