

No	Information on Estimating and Costing in Civil Engineering	
1.	Unit Name: Estimating and Costing in Civil Engineering	
2.	Unit Code: CE 51022	
3.	Classification : Engineering Subject	
4.	Credit Hours : 2.5	
	2 for lecture: (2.5 hours ×15 weeks)	
5.	Semester/ Year Offered: 1/3	
6.	Pre-requisite (if any):	
7.	Mode of Delivery : Lecture and Assignment	
8.	Assessment System and Breakdown of Marks::	
	Tutorial	0%
	Assignment/ Classwork	30%
	Midterm examination	70%
	Total	100%
9.	Academic Staff Teaching Unit:	
10.	Objective of Unit:	
	The objective of this course is to	
	<ul style="list-style-type: none"> - Civil engineering students who understand and applied the basic concepts of estimating and costing in civil engineering buildings. 	
11.	Learning Outcome of Unit:	
	On completion of this unit, students shall be able to:	
	a) beforehand the probable cost of buildings	
	b) predict the estimate is prepared by computing or calculating the quantities required	
	c) estimate of R.C.C works and structures	
12.	Synopsis of Unit:	
	The unit is intended to understand and calculate probable cost of buildings construction, predict the estimate is prepared by computing and R.C.C works and structures, analysis of rates of buildings.	
13.	Topic 1 Procedure of Estimating	
	- Introduction	
	- Metric System and Units	
	- International System of Units	
	- Method of Estimating	
	- Main Items of Work	

- Deduction for Opening, Bearing etc. in Masonry
- Units of Measurements in Metric System
- Standard Modular Bricks
- Traditional Bricks

Topic 2 Types of Estimate, Sanction, Project, Estimate, Data, Rates

- Types-Preliminary, Approximate, Abstract Estimate
- Plinth Area Estimate
- Cube Rate Estimate
- Approximately Quantity Method Estimate
- Detailed Estimate
- Revised Estimate
- Supplementary Estimate
- Supplementary and Revised Estimate
- Annual Repair or Maintenance Estimate
- Contingencies
- Work – Charged Establishment
- Tools and Plants
- Centagecharges
- Report
- Site Plan
- Layout Plan
- Summary of Estimated Cost
- Complete Set of Estimate
- Schedule of Rates
- Quantity Survey
- Plinth Area
- Floor Area
- Horizontal and Vertical Circulation Areas
- Carpet Area
- External Services
- Capital Cost
- Project
- Preliminary Estimate

Topic 3 Method of Building Estimates

- Examples of Estimate of Walls
- Method I of Building Estimate
- Method II

	<ul style="list-style-type: none"> - Centre Line Method of Building Estimate <p>Topic 4 Estimate of Buildings</p> <ul style="list-style-type: none"> - Estimate of Buildings <p>Topic 5 Estimate of Different Types of Roofs</p> <ul style="list-style-type: none"> - Jack arch roof, flat terraced roof - G.I sheet roof of verandah, roof truss - A.C sheet roof, king post timber truss <p>Topic 6 R.C.C works and structures</p> <ul style="list-style-type: none"> - R.C.C works and structures of buildings - percentage steel reinforcement, standard hook and cranks of reinforcement - R.C.C frame building estimate of R.C.C slab, beams - R.C.C works and structures of buildings - .column with foundation, staircase, retaining wall, steel stanchion and beams <p>- Discussion</p>
14.	<p>Main Referances:</p> <p>Text Book: Estimating and Costing in Civil Engineering, Theory and Practice</p> <p>Author: B.N. DUTTA</p> <p>Edition: 24th edition.</p> <p>Other Book: Civil Estimating and Costing (Including Quantity Surveying, Tendering and Valuation)</p> <p>Author: A.K. Upadhyay</p>

Daw Nwe Hlaing Oo
Assistant Lecturer
Civil Engineering Department