1.	Title of the course	Estimation and Construction Management
2.	Course number	CE317L
3.	Structure of credits (L-T-P-C)	3-0-0-3
4.	New course/modification to	Modified with CE401L/ESTIMATION AND CONSTRUCTION MANAGEMENT
5.	To be offered by	Civil and Environmental Engineering
6.	Proposed by	Behera Prasanna Kumar
7.	Prerequisite	None
8.	**Course Objective(s):** To introduce the concepts of engineering economics, quantity and cost estimates of civil engineering works, construction management, planning and control of civil engineering projects.	
9.	**Course Content:** Engineering economics: time value of money, cash flow, rate of return, depreciation, equipment costing; Estimation: purpose and types of estimates, units of items of work, methods of building estimates, quantity takeoff of earthwork, brickwork, formwork, reinforced concrete work, plastering, painting, specifications, rate analysis, cost estimate; Planning and control: work breakdown schedule, bar charts, network relationships, critical path method, floats, resource levelling, program evaluation and review technique; Construction contracts; Quality and safety management.	
10.	**Textbook(s):** 1. Dutta B N, Estimating and Costing in Civil Engineering: Theory and Practice, 28th Edition, UBS Publishers' Distributors Pvt. Ltd. (2016). 2. Jha K N, Construction Project Management: Theory and Practice, 2nd Edition, Pearson Education India (2015).	
11.	**Reference(s):** 1. Chakraborti M, Estimating, Costing, Specification & Valuation in Civil Engineering, 29th Edition, Chakraborti Publishers (2006). 2. Oberlender G D, Project Management for Engineering & Construction, 4th Edition, McGraw Hill Education (2014). 3. IS 1200, Methods of Measurement of Building and Civil Engineering Works, Bureau of Indian Standards, New Delhi (1974). 4. CPWD, Delhi Schedule of Rates, Central Public Works Department, Government of India, New Delhi (2016).	