

1.	Title of the course	Civil Engineering Design Studio
2.	Course number	CE318M
3.	Structure of credits (L-T-P-C)	1-0-3-3
4.	New course/modification to	New
5.	To be offered by	Civil and Environmental Engineering
6.	Proposed by	A V Rahul
7.	Prerequisite	
8.	Course Objective(s): To introduce real world problems pertaining to the various disciplines of civil engineering through a project-based learning approach.	
9.	Course Content: Foundation engineering: selection of suitable deep foundation system, design of pile and raft foundation, design of sheet piles for deep excavation; Structural engineering: structural general arrangement, choice of construction material, load and design criteria, structural analysis and design; Transportation engineering: design of traffic facilities, design of perpetual pavement systems; Environmental engineering: characterization of wastewater, design of wastewater treatment plant; Water resources engineering: design of storm sewers for runoff routing, design of pipe networks.	
10.	Textbook(s): 1. Schodek D L and Bechthold M, Structures, 6th Edition, Prentice Hall (2009). 2. Metcalf L, Eddy H P and Tchobanoglous G, Wastewater Engineering, Treatment, Disposal and Reuse, 4th Edition, McGraw Hill (2017).	
11.	Reference(s): 1. Tomlinson M and Woodward J, Pile Design and Construction Practice, 6th Edition, CRC Press (2014). 2. Chakraborty P and Das A, Principles of Transportation Engineering, 2nd Edition, PHI Learning (2017). 3. Chow V T, Maidment D R and Mays L W, Applied Hydrology, McGraw Hill (2016).	