

Course Type	Course Code	Name of Course	L	T	P	Credit
DP	NCEC515	Structural Engineering Laboratory	0	0	3	1.5

Course Objective
The course aims to impart knowledge of testing methods related to Structural Engineering.
Learning Outcomes
Upon successful completion of this course, the students should be able to: <ul style="list-style-type: none"> Develop knowledge of materials and methods related to structural engineering.

Unit No.	Topics to be Covered	Contact Hours	Learning Outcome
1	Material characterization and mix proportioning	6	Learn to characterize materials for concrete and perform mix proportioning.
2	Casting and fresh property evaluation	3	Learn to cast concrete samples and evaluate their fresh properties.
3	Non-destructive testing of concrete	3	Learn to perform non-destructive tests of concrete.
4	Mechanical characterization of concrete	6	Learn to evaluate mechanical properties of concrete.
5	Flexural resistance of RCC beam	6	Learn to determine flexural resistance of RCC beams.
6	Durability assessment of concrete	9	Learn to assess durability of concrete.
7	Corrosion analysis of RCC	3	Learn to perform Corrosion analysis of RCC.
8	Revision	6	Revision of previous classes.
	Total Contact Hours	42	

Text Books:

- Gambhir, M. L. and Jamwal, N. (2014). Building and Construction Materials: Testing and Quality Control (Lab Manual Series), 1st Edition, McGraw Hill (India) Publishers.

Reference Books:

- Respective Indian Standard/ International Standard Codes of Practices.