

Course Type	Course Code	Name of Course	L	T	P	Credit
DP2	PEC 205	Drilling Fluid & Cements Lab	0	0	2	2

**Course Objectives:**

- i. On hand training to handle the equipment related to testing the drilling fluid and cement slurry.

**Learning Outcomes:**

- i. Ability to design and develop the compatible drilling fluid and cement slurry as per requirement.

**COURSE CONTENT:**

Exp. No.	Name of the Experiment	Contact Hrs
1.	Determination of apparent viscosity, Plastic viscosity, Yield Point, Initial Gel Strength by Fann V-G meter	2
2.	To Study the effect of time on gel strength by Fann V-G meter	2
3.	Determination of viscosity by Marsh Funnel viscometer	2
4.	Determination of Viscosity, Initial Gel strength and 10 minutes Gel Strength by Rotatory Viscometer	2
5.	Determination of shear strength by shearometer.	2
6.	Determination of sand content by Baroid Sand Content Set.	2
7.	Determination of Hydrostatic gradient, mud weight and specific gravity using Mud Balance	2
8.	Determination of API Filtration Loss using Standard Filter Press.	2
9.	To study for effect of CMC on filtration loss	2
10.	Determination of Chloride ion concentration & filtrate alkalinity (e.g. hydroxyl alkalinity, carbonate alkalinity and bicarbonate alkalinity)	2
11.	Determination of cation exchange capacity and bentonite content.	2
12.	To study the effect sodium chloride concentration on the resistivity by Fann-Resistivity meter.	2
13.	Determination of initial and final setting time by Vicat Needle Apparatus	2