

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E Semester: 4 Mining Engineering

Subject Code 142202
Subject Name Basic Mine Surveying

Sr.No	Course contents
1	Miners Dial : Construction, use, tests and adjustment.
2	Theodolite : Various types of theodolites, temporary and permanent adjustments, measurement of horizontal and vertical angles. Tubular and through compass.
3	Traversing : Theodolite traversing, traverse plotting, Closing error and its adjustment. Omitted measurements and their calculations.
4	Levelling : Levelling instruments, Fly levelling , measurement of depth of shaft; underground levelling, subsidence survey.
5	Tacheometric Surveying : Principle, additive and multiplying constants, determination of constants, Reduction of data by use of tacheometric table. Type of tacheometry. General procedure for field work.
6	Contouring: Definitions, characteristics of contours, methods of contouring by level, tacheometer, Interpolation of contours.
7	Triangulation Surveying : Basic concept of triangulation surveying.

Reference Books:

1. Mine Surveying & Levelling, S. Ghatak Vol. I & II
2. Surveying, Kantekar
3. U.M.S.