

SAVITRIBAI PHULE PUNE UNIVERSITY
Geography T.Y.B.Sc. (Credit System)
Revised Syllabus (From June-2021)
Semester-VI

Course No: GG 3611: Total Station Surveying

(Skill Enhancement Course)

No. of Credits: 02

No. of hours: 30

Objectives:

1. To understand various techniques in surveying.
2. To analyses the principles and various methodologies involved in surveying.
3. To generate the drawings using advanced surveying equipment & application software.
4. To sensitize the students with advanced surveying equipment's.

Sr. No.	Topic	Learning points	Periods
1	Angle and Distance Measurement using Total Station	a. Relationship of angle and distances b. Measuring horizontal angles with Total Station c. Measuring from required the horizontal angle d. Repetition angle measurement	07
2	Distance Measurement by Total Station	a. Setting of atmospheric correction b. Setting of correction of prism and non-prism c. Distance measurement (Single measurement) d. Distance measurement (Continuous) e. Offset measurement	08
3	Coordinate Measurement by Total Station	a. Setting coordinate value for occupied point b. Setting height of instrument c. Setting height of target (Prism height) d. Execution of coordinate measurement	07
4	Field Measurement by Total Station and its plotting	a. Survey of a beach b. Cross and long profile of a stream/river reach c. Measurement of agricultural farm d. Preparation of college campus map	08

Reference:

1. Asis Sarkar (2015): Practical Geography, A Systematic Approach, Orient Black Swan
2. Duggal, S.K. (2013): Surveying Vol. 2, McGraw Hill Publication, New York.

3. Kanetkar, T.P. and Kulkarni, S.V. (2010): Surveying and Leveling Vol. II, Pune Vidyarthi Publication, Pune.

4. Maslov, AV., Gordeev, A.V. and Batrakov, Yu.G. (1984): Geodetic surveying, Mir Publishers, Moscow.
5. Rangwala, S.C. (2011): Surveying and Leveling, Charotar Publishing House Pvt. Ltd. Anand, (Gujarat), India.
6. Punmia, B.C., Jain A. and Jain A. (2011): Surveying, Vol. II. and III, Laxmi Publication - New Delhi.
7. Roy S. K. Fundamentals of Surveying CD Program on GPS and GIS by Learning Materials Development Project