

GEOG. 206: BASIC FIELD SURVEYING

Credit/Hours: 3(2+1)

I. Plane Table Surveying

- i. General description
- ii. Instruments
- iii. Procedure
- iv. Methods of Plane Tabling
- v. Advantages and Disadvantages of Plane Table Surveying
- vi. Errors in Plane Table Surveying
- vii. two point & three points problems

II. Prismatic Compass Survey

- i. General description
- ii. Bearing
- iii. Compass Traverses (open and close).
- iv. Calculation of Included Angles & Calculated Bearings,
- v. Plotting from the True North
- vi. Adjustment of Errors
- vii. Compass Sketch Surveys
- viii. Fixing New Station
- ix. Combined Traverses and Sketch Surveys

III. Triangulation Surveys

- i. Theodolite and Types of Theodolites
- ii. Parts of Theodolite
- iii. Use of Theodolite
- iv. Adjustments of the Instrument
- v. Measurement of Horizontal and Vertical Angles
- vi. Measurement of Base Line
- vii. Triangulation Surveys
- viii. Filling in of Detailing with Plane Table in Triangulation Surveys.
- ix. Finding out Height of Inaccessible Objects.

Books Recommended:

- Maginr D. J (1991):. Geographic Information System. Longman London
- Brinker R.E. & W.C. Taylor (1962): Elementary Surveying, The International Textbook Company.
- Usili G.W. (1960): Practical Surveying. The Technical Press Ltd.
- Clendinning, J. (1960): Principles of Surveying. Blackie and Sons, Limited Glasgow,
- Rubey, H. et .al (1958): Engineering Surveys. The Macmillan Company.
- Breed, C.B. & G.L. Hosmer (1953): Surveying. John Wiley & Sons.
- Thomas W.N. (1942): Surveying, John Wiley and Sons.
- Kanetkar, T.P. & S.V. Kulkarni (nd): Surveying and Leveling part-I. Union Book Stall Karachi.