

S.Y.B.Sc. (Geography)
Choice Based Credit System Syllabus
To be implemented from Academic Year 2020-21
Semester IV Paper-III
Surveying – II

Course No. GG-243 Total no. of Credits: 02 No. of Practicals: 15 (4Hours eachPractical)

Note:

1. Each practical batch should have not more than 12 students each.
2. A separate question paper should be set for each batch.
3. Four hours of one practical should be allocated.

Objectives:

- i. To acquaint the students with the principles of surveying, its importance and utility in the Geographical study.
- ii. To familiarize the students with the basic aspects of linear, vertical, and angular measurements of surveying.
- iii. To introduce the importance, basic principles, and uses of GPS in surveying.
- iv. To acquire knowledge on the Satellite system required for GPS in detail.
- v. To identify sources and types of errors occurs during surveys.

Sr. No.	Name of the Topic	Learning Points	No. of Practicals 15 (4 Hours/Practical)
1	Dumpy Level Survey	1. Introduction 2. Types of Dumpy Level: i. Tilting Level ii. Auto Level iii. Digital Level. 3. Components, structure and function of Dumpy Level 4. Types of Levelling Staffs a) Self-reading staff and Target staff. b) Classification of Levelling : i. Simple Levelling, i. Differential Levelling ii. Fly Levelling iii. Profile Levelling iv. Reciprocal Levelling v. Precise Levelling. 5. Examples & methods of finding out the R. L. in Collimation Level, Rise & Fall Methods with a necessary check (With one example each).	05
2	Theodolite Survey	1. Definitions, concepts, and importance of Theodolite survey	04

		<p>2. Components of Theodolite survey, adjustments in theodolite.</p> <p>3. Types of Theodolite and Methods of Theodolite Surveys: Transit and non-transit theodolite</p> <p>4. Surveying and plotting: intersection method and Tacheometric (One example with each).</p>	
3	Field Survey	<p>1. Dumpy level survey with plotting and report writing</p> <p>2. Theodolite survey with plotting and report writing</p> <p>(Per batch one separate field survey for both. A visit can be conducted anywhere in the country)</p>	03
4	Excursion or Village Survey	<p>Visit any geographically interesting place in the anywhere in the country (No separate visit for each batch, Only one visit to all students)</p> <p style="text-align: center;">Or</p> <p>Socio-economic village survey (Per batch one village survey)</p>	02

Reference Books:-

1. Kanetkar T.P. and Kulkarni S.V. (1983). Surveying and Levelling (Part I and II), Vidyarthi Gruha Prakashan, Pune.
2. Monkhouse, F.X.J. & Wilkinson, H.R (1989). Maps & Diagrams, B.I Publications, Bombay.
3. Mishra, R.P, and Ramesh A. (2000). Fundamental of Cartography, Concept Publishing Company, New Delhi.
4. Robinson, A.H. & Sleep, R.D.(1969). Elements of Practical Geography, John Wiley publications, New York.
5. Singh Gopal (1996). Map Work and Practical Geography, Vikas Publishing House Pvt. Ltd., New Delhi.
6. Singh, R.C., and Dutta (1993). Elements of Practical Geography, Kalyani Publications, New Delhi.
7. Singh, Lekhraj & Singh R. (1973). Map work and Practical, Central Book Depot. Allahabad.
8. Singh, R.L., and Singh, R.P.B. (1997). Elements of Practical Geography, Kalyani Publishers, New Delhi.
9. Singh, R.L., and Kanaujia L.R.S. (1963). Map Work and Practical Geography, Central Book Depot, Allahabad.
10. Bygott, J.(1955). Map work and Practical Geography.5th Edition, University Tutorial Press, London.
11. Davis, R.E.and Foote, F.S.(1953). Surveying, McGraw-Hill Book Co., New York.
12. Deshpande, G.B.(1991). Surveying, Everest Publishing House, Pune.