

Name of Programme: M. Sc. Applied Geology

Course Code: GEO-526

Title of the Course: Practical of Exploration Geophysics

No of Credits: 01

Effective from AY: 2022-23

Prerequisites for the course:	Degree of Bachelor of Science in Geology from any UGC recognized University or an equivalent examination.	
Objective:	The main objective of this course is to get students acquainted with various method of Geophysical-exploration and interpretation of the results.	
Content:	Exploration Geophysics Field survey using resistivity methods. Interpretation of resistivity data using master curves matching and digital techniques; Interpretation of seismic refraction and reflection data; Field survey using magnetometers and data interpretation; Interpretation of well logs. GPR applications and interpretations.	30 hours
Pedagogy:	It is a practical component. Case studies are discussed.	
References /Readings	1. Kearey, P., Brooks, M., and Hill, I. (2002). <i>An introduction to geophysical exploration</i> (Vol. 4). John Wiley and Sons. 2. Telford, W. M., Geldart, L. P., and Sheriff, R. E. (1990). <i>Applied geophysics</i>. Cambridge university press. 3. William, L. (1997). Fundamentals of geophysics. 4. Sharma, P. V. (1985). Geophysical methods in geology. Dobrin, M. B., and Savit, C. H. (1960). <i>Introduction to geophysical prospecting</i> (Vol. 4). New York: McGraw-hill.	
Course outcomes	1. Upon completion of this course the student will learn to interpret the geophysical data. 2. The students will be able to understand the subsurface geology by using geophysical techniques.	