Name of Programme: M. Sc. Applied Geology
Course Code: GEO-513
Title of the Course: Practical of Metamorphic Petrology
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 identification of metamorphic rocks in hand specimens and petrographic thin section and to identify fabric forming processes.	
Content:	Identification of typical metamorphic minerals in hand specimen and thin section. Description, identification and classification of commonly occurring metamorphic rocks in hand specimen and thin section. Description of fabrics and textures of common metamorphic rocks in hand specimen and thin section.	30 hours
Pedagogy:	It is a practical component and entire course is taught in the laboratory.	
References/ Readings	1. Yardley, B. W., MacKenzie, W. S., and Guilford, C. (1997). *Atlas of metamorphic rocks and their textures*. Longman. 2. Vernon, R. H. (2018). *A practical guide to rock microstructure*. Cambridge University Press. 3. Dana, E. S., and Ford, W. E. (1952). *Dana's textbook of mineralogy*. Wiley Easstern Limited 4. Winter, J. D. (2010). *An Introduction to Igneous and Metamorphic Petrology* (2nd Edition), Pearson Education, Inc. 5. Phillips W. R. and Griffen, D.T. (1981). *Optical Mineralogy: The Non-opaque Minerals*. W. H. Freeman and Co., Ltd. New York.	
Course outcomes	1. The students will develop skills to identify metamorphic minerals and rocks 2. Students will be able to understand their geologic occurrence and infer the processes of formation and environmental conditions from the mineral assemblage, texture, and tectonic setting.	