

Name of Programme: M. Sc. Applied Geology

Course Code: GEO-601

Title of the Course: Practical of Microtectonics

No of Credits: 01

Effective from AY: 2023-24

Prerequisites for the course	Students should have undergone course in structural geology at MSc part I.	30 hours
Objective	To describe and interpret deformed rock fabrics and textures on microscale to reconstruct tectonic events.	
Content	<ul style="list-style-type: none">● Observation and recognition of diagnostic microstructures and fabric elements in rocks and minerals in thin sections● Observation and recognition of diagnostic microstructures and fabric elements in rocks and minerals in hand specimens● Field studies on structural aspects of faults and shear zones	
Pedagogy	Practical exercises	
References/ Readings	<p>1. Trouw, R. A., Passchier, C. W., and Wiersma, D. J. (2009). <i>Atlas of Mylonites and related microstructures</i>. Springer Science & Business Media.</p> <p>2. Vernon, R. H. (2018). <i>A practical guide to rock microstructure</i>. Cambridge university press.</p> <p>Passchier, C. W., and Trouw, R. A. (2005). <i>Microtectonics</i>. Springer Science & Business Media.</p>	
Course outcomes	<p>1. The student will be able to recognize and interpret microstructures in thin section.</p> <p>2. The student will be able to recognize and interpret microstructures in hand specimen.</p> <p>3. The student will be able to recognize and interpret structural features of faults and shear zones in field.</p> <p>4. The student can apply the knowledge to understand the tectonic evolution of their own samples.</p>	