

Semester	AUG 2022
Open to semester	7,21
Course code	EC4173/EC6383
Course title	Igneous and Metamorphic Petrology Lab
Credits	3 /3
Course Coordinator & participating faculty (if any)	Shreyas Managave, Raymond Duraiswamy (SPPU Pune)
Nature of Course	Lab
Pre-requisites	Igneous and Metamorphic Petrology
Objectives (goals, type of students for whom useful, outcome etc)	<p>This course will cover laboratory aspects of the course Igneous and Metamorphic Petrology.</p> <p>It uses the theoretical concepts covered in the Igneous and Metamorphic Petrology course to classify and understand the formations of igneous and metamorphic rocks. The skills imparted in this course would help students in the later courses such as field geology.</p>
Course contents (details of topics /sections with no. of lectures for each)	<p>Igneous Petrology: Igneous textures and their interpretation</p> <p>Identification and classification of Igneous rocks</p> <p>Hand specimen and thin sections of ultramafic rocks (peridotites and pyroxenites), mafic rocks (Gabbro and Basalts) and felsic rocks (Granites, Rhyolites and Pegmatites)</p> <p>Introduction to CIPW norm calculation</p> <p>Metamorphic Petrology: Metamorphic Textures Metamorphic reactions. Identification and classification of Metamorphic rocks</p> <p>Metamorphic facies, associated textures and minerals</p> <p>Hand specimen and thin section of schist, gneiss and granulose rocks</p>
Evaluation /assessment	End-Sem Examination-40%

	Mid-Sem Examination-30% Others-Lab journal+quiz=30%
Suggested readings (with full list of authors, publisher, year, edn etc.)	J. D. Winter (2001) An Introduction to Igneous and Metamorphic Petrology, Prentice Hall, 697p W. S. MacKenzie, C. H. Donaldson, C. Guilford (1982) Atlas of Igneous Rocks and Their Textures. Longman, 148 p. B.W.D. Yardley, W.S. MacKenzie, and C. Guilford (1990) Atlas of metamorphic rocks and their texture. Longman, 128p.