

Semester	AUG 2023
Open to semester	1
Course code	BI1123
Course title	Experimental Biology
Credits	3 /
Course Coordinator & participating faculty (if any)	Kalika Prasad*, Richa Rikhy, Sagar Pandit, Nishad Matange, Krishanpal Karmodiya, Sunish Radhakrishnan, Mridula Nambiar, Thomas Pucadyil
Nature of Course	Lab
Pre-requisites	BS-MS First year
Objectives (goals, type of students for whom useful, outcome etc)	To gain basic understanding and hands-on practice in experimental biology.
Course contents (details of topics /sections with no. of lectures for each)	1. Introduction to Microscope- disassembly etc 2. Microscopy of water sample- Pond water 10X 40X 3. Leaf Stomata analysis- count stomata in Leaves, stomatal Index 4. Bacterial staining- Gram staining 5. Mitosis - onion root tip 6. Meiosis/Metaphase chromosome spread-demo (?)/slides/Karyotype Images END-SEM 7. Model organisms 8. Osmosis/plasmolysis- Sucrose gradient. leaf 9. Pure culture techniques (Bacterial streaking- curd/dosa batter) 10. staining of blood cells (Giemsa) 11. Human genetics (traits etc)
Evaluation /assessment	End-Sem Examination-50% Mid-Sem Examination-50% Others-%
Suggested readings (with full list of authors, publisher, year, edn etc.)	it will be given during class.