

Semester	AUG 2022
Open to semester	3
Course code	BI1123
Course title	Experimental Biology (Aug 2021)
Credits	3 /
Course Coordinator & participating faculty (if any)	Nishad Matange, Sagar Pandit, Sunish Radhakrishnan, Mridula Nambiar*, Kalika Prasad
Nature of Course	Lab
Pre-requisites	None
Objectives (goals, type of students for whom useful, outcome etc)	The theme for the practical course is “Looking at cells in action”. The course aims to make students understand the joy of doing experiments in biology. Further, students will learn about experimental errors. Finally, students will also learn to keep good records of the experiments performed in a lab journal.
Course contents (details of topics /sections with no. of lectures for each)	<ul style="list-style-type: none"> a. Introduction to microscopes b. Using the microscope to observe different microorganisms in a water sample c. Model organisms d. Staining of blood cells and micrometry of different cells e. Bacterial staining – differentiating between gram positive and gram negative bacteria f. Osmosis/Plasmolysis g. Leaf stomatal density h. Mitosis i. Meiosis j. Metaphase chromosome spread k. Pure culture techniques: media, streaking, pour plates
Evaluation /assessment	<p>End-Sem Examination-35%</p> <p>Mid-Sem Examination-35%</p> <p>Others-30 % (Lab journals)%</p>
Suggested readings (with full list of authors, publisher, year, edn etc.)	<ul style="list-style-type: none"> 1. Text Book(s) 2. Lectures and associated reading provided by faculty during the course 3. Raven, P.H. and Johnson, G.B. (1999) Biology. Edition Five. WCB/McGraw-Hill, pp. 1284.