Birla Institute of Technology & Science, Pilani
Hyderabad Campus

INSTRUCTION DIVISION, SECOND SEMESTER 2021 – 2022

COURSE HANDOUT (PART II)

Date: 05.05.2022

In addition to Part – I (General Handout for all courses) printed on Page 1 of the timetable book; this portion gives further specific details regarding the course.

Course Number : **BIO F110**

Course Title : **BIOLOGY LABORATORY**

Instructor In-charge : **Dr. GIREESHA T. MOHANNATH**

Instructors : **Dr. Kirtimaan Syal, Dwaipayan Bhattacharya, Neha Priyadarshini, Nidhi O, Neethu R S, Tata Pranathi, Lakesh Kumar Sahoo, Priyanka Chakravarti**

Course Description: An introductory level course, where students would perform selected experiments of biology in the laboratory, so that they appreciate the concepts learnt in theory course. Experiments that are covered in the course include those that related to microscopy and micrometry, quantification of biological macromolecules, chlorophyll estimation, measurement of solvent potential of plant tissue, measurement of parameters related to cell cycle, experiments related to hematology, DNA quantification from the plant organs.

Scope and Objective: The major objective of this course is to impart knowledge on application of biological sciences to encourage student's interest in biology. This course is designed to make the student understand various biological phenomena and equip the student with knowledge of simple biology laboratory techniques. The following 10 experiments will be conducted as part of the course.

Laboratory Manual: Soft copy of the manual will be uploaded on CMS.

All the experiments pertaining to this course will be carried out offline in the room A122. Should there be any change in guidelines in the near future regarding the mode of conducting experiments, you will be notified accordingly.

Sl. No.	Title of the experiment
1	Measurement of total protein content in the given sample
2	Measurement of glucose content in the given sample
3	Separation of chlorophyll pigments using paper chromatography
4	Microscopic examination of permanent slides
5	Study of the phenomenon of plasmolysis in onion peel
6	Identification of mitotic stages in the given plant tissue sample
7	Determination of ABO & Rh blood types
8	Measurement of total cholesterol levels in serum
9	Micrometric measurement of microorganisms
10	Extraction of DNA from banana

Evaluation Components:

Evaluation component	*% (Marks)*	*Date and time*	*Nature of the Component**
Participation in experiment and Lab Record	40 (80)	Every Practical	Open Book
Mid semester Evaluation	30 (60)	29-06-2022 3:30 – 5:00 pm	Closed book
End semester Evaluation	30 (60)	04-08-2022 AN	Closed book

All students should have the lab manual and refer to it before and after each experiment.

For offline classes:

Wearing lab coat and closed shoes are mandatory to enter into the laboratory.

No student will be allowed into the laboratory after 2 minutes from the beginning of the practical session only on unavoidable circumstances. Otherwise, students are expected to be in the lab couple of minutes before the lab starts.

Lab coats are available in the shopping complex on campus.

If a student does not meet these criteria, he/she will be not be permitted to enter the lab.

Notices: All notices, concerning the course will be displayed on CMS.

Grading policy: Students missing significant portion of evaluation component(s) could be awarded Not Cleared (NC) grade.

Make-up policy: Make-up will be granted only on medical grounds (which evidently prevents you from attending the class like hospitalization). In the campus, the make-up request is accompanied with chief warden's approval and campus doctor's certificate.

Academic Honesty and Integrity Policy: Academic honesty and integrity are to be maintained by all the students throughout the semester and no type of academic dishonesty is acceptable and any such instance will be severely dealt with.

Gireesha T.M.
Instructor In-charge
BIO F110