



**INSTRUCTION DIVISION, FIRST SEMESTER 2020 – 2021**

**COURSE HANDOUT (PART II)**

Date: 27.10.20

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** : PRAGYA KOMAL

**Instructors** : Debashree Bandopadhyay, Kumar Pranav Narayan, Aruku Dazo Vadeo, Gargi Prasad, Rolly Kumari, Raunak Sharma, Shraddha Tripathi, Neelima Christopher, Jaganath A, Dhansri Krishnamurthy

**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.

**Experiments: (To be performed virtually- Videos will be shown to the students via online mode)**

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 Component:**

<i>Evaluation component</i>	<i>% (Marks)</i>	<i>Date and time</i>	<i>Nature of the Component*</i>
<b>Lab Record</b>	35 (70)	Every Practical	OB
<b>Mid semester Evaluation</b>	35 (70)	28.12.2020; 3:30-5:00pm	OB
<b>End semester Evaluation</b>	30 (60)	20.02.2020 (3-5); AN	OB

**\*Note:**

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

No student will be permitted to perform the practical without lab manual.

No student will be allowed into the laboratory after 10 minutes from the beginning of the practical session.

Material will be available in the shopping complex.

**If the student does not meet these three criteria, he/she will be sent out of the lab and will have to forego the experiment.**

**Notices:** All notices, concerning the course will be displayed on CMS or google-classroom for BIOF110.

**Grading policy:** Students missing one or more evaluation component(s) will be awarded Not Cleared (NC) grade.

**Make-up policy:** Make-up will be granted only on medical grounds, with chief warden's approval and campus doctor's certificate (if on-campus) or a written note by parents is mandatory (if off-campus).

**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.

**PRAGYA KOMAL**  
Instructor In-charge  
BIO F110