

Syllabus for **SKILL ENHANCEMENT COURSE (SEC)** of **BG/UG 4th Semester** offered in the discipline/subject of **Biochemistry** at Cluster University Srinagar.

Expected Outcome: The course will provide technical skill for techniques and procedures routinely employed in Basic Biochemistry.

Title: Basic Tools in Biochemistry

BCH SEC 2

Unit 1

Safety practices in the laboratory. Preparation and storage of solutions. Concepts of solution. Concentration and storing solutions. Quantitative transfer of liquids.

Unit 2

Concept of a buffer, Henderson-Hasselbach equation, working of a pH meter. Preparation of a buffer of given pH and molarity.

Unit 3

Spectrophotometric techniques, Principle and instrumentation of UV-visible and fluorescence spectroscopy. Determination of the absorption maxima and molar extinction coefficient (of a relevant organic molecule).

Unit 4

Introduction and importance of virtual labs in Biochemistry.

SUGGESTED READINGS

1. Sheehan, D , Physical Biochemistry: Principles and Applications, Wiley Blackwell (West Sussex),
2. Freifelder, D., Physical Biochemistry: Applications to Biochemistry and Molecular Biology , W.H. Freeman and Company (New York).
3. Plummer D. T., An Introduction to Practical Biochemistry, Tata McGraw Hill Education Pvt. Ltd.