

BS (4 Years) for Affiliated Colleges



Code	Subject Title	Cr. Hrs	Semester
CHEM-439	Biochemistry (Sp. Practical)	2	VIII
Year	Discipline		
4	Chemistry		

SYLLABUS OUTLINE:

1. Urine Analysis:

Analysis of Inorganic constituents in normal and abnormal urine by atomic absorption spectrometry, flame photometry and titration method.

2. Blood Analysis:

Analysis of inorganic constituents of blood like , sodium, potassium etc by flame photometry. Estimation of organic constituents like Uric acid, serum proteins, haemoglobin etc by chemical methods.

Estimation of Clinically important enzymes like alkaline phosphatase, acid phosphatase, SGPT, SGOT, creatine kinase, etc using their specific assay methods.

(a) Cell structure:

Study of cell structure by light microscope. Growth of Bacteria and its growth curve.

(b) Separation techniques:

Gel filtration of proteins, Separation of Blood proteins by Polyacrylamide gel electrophoresis.

RECOMMENDED BOOKS:

1. Modern Experimental Biochemistry by R. F. Boyer 3rd ed, 2000, Pub: Pearson Education Inc.
2. Practical clinical Biochemistry by Varley. Pub: CBS publisher
3. An Introduction to Practical Biochemistry By D. T. Plummer 3rd ed. (1987) Pub: McGraw Hill
4. Fundamentals of Microbiology. By E. Aicamo 1994 Publisher; Benjamin- Cummings Publishing Co.