

## **PHARMACEUTICAL CHEMISTRY, BIOCHEMISTRY, AND CLINICAL PATHOLOGY LAB**

The **Pharmaceutical Chemistry, Biochemistry, and Clinical Pathology Lab** in a pharmacy college is a multidisciplinary facility where students gain practical knowledge of chemical and biological principles related to drugs and the human body. In the **Pharmaceutical Chemistry lab**, students perform experiments related to the synthesis, identification, and analysis of pharmaceutical compounds. They learn about qualitative and quantitative chemical analysis, limit tests, and assays as per pharmacopeial standards using instruments like UV-Visible spectrophotometers, pH meters, and conductivity meters. The **Biochemistry lab** focuses on understanding the chemical processes within living organisms. Students analyze biomolecules such as carbohydrates, proteins, lipids, and enzymes, and study metabolic pathways relevant to health and disease. Experiments include tests for blood glucose, urea, creatinine, and enzyme activity. In the **Clinical Pathology lab**, students are trained to perform diagnostic tests on biological fluids such as blood, urine, and sputum. They learn techniques like urine analysis, blood cell counting, and detection of abnormal constituents, which are crucial for disease diagnosis and monitoring. These integrated labs play a significant role in bridging basic science with clinical application, helping students understand the chemical and pathological basis of diseases and the role of drugs in treatment.

List of Equipment available:

<b>S. No.</b>	<b>Name</b>	<b>Quantity Available</b>
1	Hot plates	5
2	Hot Air Oven	1
3	Refrigerator	1
4	Analytical Balances for demonstration	1
5	Digital balance 10mg sensitivity	5
6	Magnetic Stirrers with Thermostat	10
7	Vacuum Pump	1
8	Digital pH meter	1
9	Wall Mounted Water Distillation Unit	2
10	Nessler's Cylinders	40
11	Digital Melting Point Apparatus	2
12	Thieles Tube	20
13	Digital Colorimeter	2
14	Thermostatic Water Bath	1