

Clinical Practice III (Biochemistry, Histopathology and Cytopathology) **(Hospital/Laboratory Based)**

Students will be posted in hospital/laboratory with Biochemistry, Histopathology and Cytopathology facilities for 8 weeks at the end of course (i.e. in third year) for clinical practice. For this, students must be posted in all related Departments/Section of diagnostic laboratory and blood bank on rotation basis.

Course Description

This clinical practice program is designed to help the students to apply the comprehensive knowledge and skills learned in the training institute on actual situations. The program is offered after completing twelve weeks institution-based training in third year.

Course Objectives

At the end of the course, the students will be able to:

- Perform all routine and some special laboratory procedures independently and accurately as mentioned below, and
- Build confidence on laboratory procedures.

Placement Schedule

The whole class of students will be divided into five groups and placed for the following sections of the pathology department.

S.N.	Practical Areas	Duration
1.	Biochemistry Lab	5 Weeks
2.	Histopathology & Cytopathology Lab	5 Weeks
	Total Duration	10 Weeks

Skills to be performed during the clinical practice

Each student should perform the following skills independently and accurately during the clinical practice.

A. Biochemistry

- Preparation of different types of reagents for the estimation of
 - Glucose
 - Urea
 - Creatinine
 - Uric acid
 - Total Protein
 - Albumin Globulin
 - Albumin Globulin ratio
 - Amylase
 - Lipid profile
 - Bilirubin
 - ALT (SGPT)

- AST (SGOT)
- Alkaline phosphates
- Sodium
- Potassium
- Chloride
- Calcium

Note: Prepare standard graph of various test.

B. Histopathology & Cytopathology:

- Microscopy
- Prepare fixatives and fixation of tissue
- Collect, transport and fix histopathological and cytopathological specimens.
- Process the grossed tissue
- Cut sections
- Prepare reagents and stains used for Hematoxylin & eosin stains, PAS/Alcian blue and ziehl- Neelsen stain.
- Prepare reagents and stains used for Giemsa and Papanicolaou stain
- Stain the section by H/E and Ziehl-neelsen stain
- Prepare cytological fixative and fixation of cells
- Prepare cytological smears and stain with pap method
- Stain FNAC smears by Giemsa and pap method.
- Mount stained smears/sections
- Perform Aceto-orcein staining for Barr bodies.

Students should be present in the departments at least 90% of the allotted days to be eligible to sit in the final examination. Students will have to perform all tests under the supervision of departmental staff and may be allowed to perform tests independently if the supervisor finds them perfect. Students should keep their practical record (logbook) signed periodically by their supervisor/instructor at the end of the posting in each subject.

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Experts Involved in Third Revision

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