

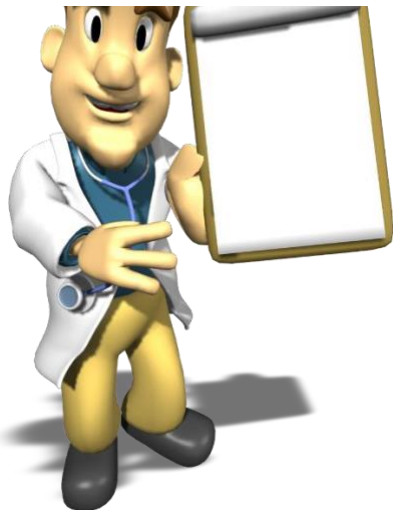


Addon Course on:

***“Laboratory Pathology:
Hands on Training on Selected Methods”***

OFFERED BY:

DEPARTMENT OF ZOOLOGY,
GOVERNMENT GENERAL DEGREE COLLEGE, KESHIARY
VILLAGE: TILABONI MAHISHAMURA, P.S. KESHIARY
DIST. PASCHIM MEDINIPUR, PIN 721135



FOR:

THE STUDENTS OF LIFE SCIENCES &
CHEMICAL SCIENCES,
GGDC, KESHIARY



Department of Zoology
Government General Degree College, Keshiary

Tilaboni Mahishamura P.S. Keshiary, Dist. Paschim Medinipur, PIN 721135

Value Added Course on:

“Laboratory Pathology: Hands on Training on Selected Methods”

Introduction:

The vast population of India is in need of trained doctors and nurses along with skilled laboratory technicians in order to render a proper healthcare service. In this scenario, there is a dearth of skilled laboratory technicians in the Government and Private health care facilities which cause a delay in diagnostics and urgent healthcare functionalities. A graduate of biological sciences and chemical sciences can be inspired to take up training courses in Laboratory Pathology which they can utilize in pursuing their respective career opportunities.

The Department of Zoology, GGDC, Keshiary within its limited scope has thus taken up the challenge to induct a value-added course on **Laboratory Pathology** utilizing its own laboratory facilities. The course would empower the young graduates to understand human physiology on experimental basis and the means to access selected protocols and methodologies. The training would likely infuse confidence among the trainee to take up Laboratory Pathology as a profession in their future career and it would render benefit to the society in long run.

Aims and objectives:

- i. To train a student with the common protocols of a pathological laboratory
- ii. To make a student oriented with various instruments and tests in laboratory
- iii. To inspire a student to choose laboratory pathology as a career option

Duration of the course:

The course would be conducted for not less than 30 hours over a period of three months.

Admission Procedure:

Candidates for admission to the course should be students of Government General Degree College, Keshiary, Paschim Medinipur. Interested students from the departments of Life Sciences and Chemical Sciences can apply for admission at the time of notification in the prescribed form. Certificates would be issued to the candidates on successful completion of the course.

Contact Information:

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Course objectives:

- i. To make a trainee introduced to the basic requirements of a pathological laboratory
- ii. To make a trainee accustomed to simple pathological tests in laboratory that can develop in him/her acumen to first aid and laboratory methods

Syllabus:**Laboratory Pathology: Hands on Training on Selected Methods**

Sl. No.	Topics	Assigned hours
1.	Measurement of body temperature using thermometer	1 hr
2.	Measurement of blood pressure using sphygmomanometer and digital blood pressure monitor	1 hr
3.	Determination of blood group (ABO and Rh) using antibody kit	1 hr
4.	Estimation of bleeding time and clotting time	1 hr
5.	Using and maintenance of simple and compound microscope	3 hrs
6.	Micrometric measurement using stage micrometer and ocular micrometer	2 hrs
7.	Estimation of cell viability using Trypan Blue assay	2 hrs
8.	Estimation of total count of RBC using haemocytometer	2 hrs
9.	Estimation of total and differential count of WBC	3 hrs
10.	Estimation of haemoglobin in blood using haemoglobinometer	3 hrs
11.	Estimation of erythrocyte sedimentation ratio (ESR) of blood	3 hrs
12.	Estimation of serum protein using colorimetry/spectrophotometry (Lowry's method)	2 hrs
13.	Estimation of amylase using colorimetry/spectrophotometry	2 hrs
14.	Introduction to histology and microtomy	4 hrs

Selected reference books:

1. Guyton and Hall Textbook of Medical Physiology - 14th Edition, Elsevier
2. Ganong's Review of Medical Physiology, 26th Edition by Kim E. Barrett, Susan M. Barman, Scott Boitano, Jane F. Reckelhoff, Mc Graw Hill.
3. Dacie and Lewis Practical Haematology, 12th edition, Elsevier.
4. Laboratory Tests and Diagnostic Procedures by Cynthia C. Chernecky, Barbara J. Berger, 6th Edition, Elsevier.

Outcome of the course:

- i. Trainee would be able to handle simple and compound microscope in laboratory
- ii. Trainee would be able to provide first-aid support to needy individuals by using simple instruments like thermometer, sphygmomanometer etc.
- iii. Trainee would be able to perform simple yet lifesaving assay in laboratory related to human blood
- iv. The experience would assist the trainee to get self-reliant in his pursuit to the job of laboratory pathology