



A REPORT ON ADVANCED DIPLOMA IN LABORATORY TECHNICIAN (ADMLT)

Name of the Course: Advanced Diploma in Laboratory Technician

Year of Introduction: 2013-14

Duration: 02 years

Advisory Committee:

1. Dr. Balendra Kumar Dev. Choudhury, Principal
2. Mr Jiban Ch. Sarma, Vice-Principal
3. Mr. Mahananda Kumar Pathak, Associate Professor, Dept Mathematics
4. Dr. Kamal Sarma, Associate Professor, Dept of Zoology (Co-ordinator)
5. Md Ayez Ali, Associate Profesor, Dept of Geography

Objective of the course:

1. The objective of the said course is to produce skill-based manpower in paramedical field.
2. General Science Course students may opt the diploma as an add-on course for enhancing the scope of their employability.

Eligibility: 10+2 science passed students who are regularly admitted in TDC course of Pub Kamrup College.

Seats: total intake capacity is 40 students only.

Examination: The examination of the said course will be held as per the Gauhati University's examination Schedule.

Job Opportunities: Paramedic skilled persons are in high demand in different health care sector. It is being reported that trained healthcare workers are not available as per the requirement in the state healthcare sector. So, the introduction of the course is given importance in the college curriculum.

Faculties of PKC entrusted to involved in academic matters of the course:

1. For General Science topic Faculties from Physics, Chemistry, Zoology, computer Science and Mathematics are engaged for theoretical classes.
2. Govt. sector doctors and non-govt. sector doctors are appointed as guest lecturer for theory and demonstration classes.
3. Skilled Laboratory technician is appointed to look after the laboratory based non-hazardous practical classes in the college laboratory.
4. Hazardous practical classes are performed in different health care institutes including MoU Signed health care institutions.

List of Students:

ADMLT regular Course Students

Session - 2014-15

Roll No	Name of the Student
01	Nayanjyoti Goswami



02	Taranga Deka
03	Nekibuddin Ahmed
04	Arupjyoti Rajbongshi
05	Abdul Jalil
06	Himadri Dutta
07	Abdul Based
08	Bikash Kalita
09	Debajit Deka
10	Pranjit Das
11	Bhaskar nath
12	Imdada Hussain
13	Hirakjyoti Deka
14	Hemanta Deka

Session - 2015-16

Roll No	Name of the Student
01	Samiran Gautam
02	Salim Akram
03	Chinmoy Mazumdar

Session - 2016-17

Roll No	Name of the Student
01	Karan Deka
02	Kalyan Kalita
03	Punit Kumar Das
04	Esha Deka
05	Parijat Kakati
06	Moitry Bhargav
07	Aminul Islam

Session - 2017-18

Roll No	Name of the Student
01	Aminul Islam



02	Utpal Das
03	Hirak Deka

Session - 2018-19

Roll No	Name of the Student
01	Jinti Deka
02	Rijuma Begum
03	Angira Kakati
04	Deijy Kalita
05	Mridul Das
06	Kailash Bania
07	Prabal Sarma
08	Chayanika Goswami
09	Surajit Kumar Deka
10	Ruby Nath
11	Trishna Deka
12	Nilotpal Goswami
13	Barasa Deka
14	Jebina Sultana

Syllabus: ADMLT Course (2 years Course)

Paper-I: Biochemistry, Anatomy and Histopathology (Theory):

Marks - 75

1.	Diagnostic tests - Glucose Tolerance test, Blood urea, serum uric acid, Serum Creatinine
2.	Methods of collection of clinical specimen for Micro - biological investigation - a. Sputum - Petroff's method of concentration, urine, swabs, stool, blood, CSF and aspirations
3.	Processing of clinical specimen collected for isolation and identification of organisms. Preparation of direct smear and staining.
4.	Different methods of staining.
5.	Pathological analysis of urine-specific gravity, pH, reaction, colour.
6.	Chemical examination of sugar albumin, bile salts, bile pigments.
7.	Pathological examination of sputum.



8.	Semen analysis - counting, motility, staining and morphology
9.	Body fluids - D.C of peritoneal, pericardial, pleural fluids and CSF, identifying and counting of cells.
11.	Enzyme linked immune assays.
12.	Liver function tests - <ul style="list-style-type: none"> a. Serum bilirubin determination. b. Urine examination in assessing kidney function. c. Techniques of different tests including tubeless gastric analysis. d. Serum bilirubin determination. e. Urine examination in assessing kidney function. f. Techniques of different tests including tubeless gastric analysis. Estimation of various thyroid hormones and their interpretations, recent methods of thyroid function tests.

Paper- II: Clinical Pathology and Haematology (Theory): Marks - 75

13.	CSF estimation of sugar, proteins and chlorides with interpretations of results.
14.	Automation and uses of computers in biochemical analysis
15.	Diagnostic tests of serum cholesterol, HDL cholesterol, glycosylated Hb, serum calcium, Inorganic phosphate, analysis of hormone metabolites and blood gas analysis.
16.	Normal Flora of Micro-organisms in the Human body.
17.	Principle and method of ELISA tests.
18.	Collection and processing of faecal samples, concentration techniques of stool for microscopic examination. (Lab diagnosis of E-Histolytica, Giardia, Trichomonas, Plasmodium, Leishmania, Ankylostoma, Ascaris, Taenia, E-Granulosus, Enterobius-Vernicularis, Drancunculus, Wucharia).
19.	Lab diagnosis of Imp. Pathogens - <ul style="list-style-type: none"> a. Staphylococcus, Streptococcus, Pneumococcus b. Gram Negative - Gonococci, Meningococci c. Gram positive Bacilli - Coryn-Diphtheria, Mycotuberculosis, Mycro-lepri, B anthracis d. Gram Negative Bacilli- Enterobacteriaceae - E.coli, Klebsiella, Salmonella, Shigella, Entero-bactor, Proteous. e. H. influenza
20.	Bacteriological examination and water, milk and food Lab Diagnosis of - Candida, Cryptococcus, Dermatophyta, Aspergillus, Penicillium
21.	Identification of pathogenic viruses - Measles, Mumps, Influenza, Polio, Hepatitis, Rabies, Herpes, HIV, Dengue and J.E
22.	Layout of Animal house and care including common disease and control



23.	Anesthesia for animals
24.	Techniques of drawing blood from animals
25.	Peripheral blood smear and bone marrow smear
26.	Blood banking,
27.	Autopsy, Biopsy
28.	Museum techniques

Paper : III Serology, parasitology, Microbiology and Bacteriology (Practical):
Marks - 225 (100+ 100 + 25)

1. Collection and preservation of clinical materials - stool, sputum, swabs etc	100 marks
2. RBC, WBC and platelet count	
3. ESR stands and estimation	
4. PCV and calculation of RBC indices	
5. Coagulation test, Clotting time	
6. Hb estimation by different methods	
7. Preparation of widel antigens and widel test	
8. Collection, preservation and transportation of faecal material for examination of parasites. Concentration techniques of stool for ova and cyst and their identification	
9. Peripheral blood smear and bone marrow smear	
10. Diagnostic tests - Glucose Tolerance test, Blood urea, serum uric acid, Serum Creatinine	
11. POCT (sample collection at bed side).	
12. Antigen and antibody reaction	
13. Receipt and recording a specimen in the lab and dispatch of specimen	
14. Use of Biomedical equipments Hands on training on the use of equipments like Blood Pressure measuring apparatus, Stethoscope, Monitors, Glucometers, Blood Gas Analyzers, Pulse Oxymeters, Manual ECG tracking.	
15. Field visit	100 marks
16. Viva	10 marks
17. Internal Assessment	15 marks

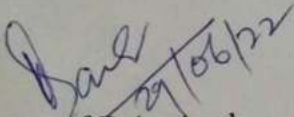
Paper -IV Haematology and Clinical Pathology (Practical) Marks - 225 (100+100 + 25)

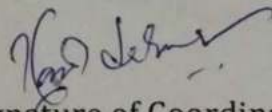
Operation of autoclave, incubator, water bath, seitzfilter	100 marks
14. Preparation of stains and smears	



15. Wet preparation of faecal sample for ova and cyst and their identification	
16. Identification of common organism like - Staphylococcus, E.coli - Klebsiella, Shigella, Salmonilla, Proteus, Pseudomonas	
17. ELISA and Western Blot test	
18. Antibiotic sensitivity test	
19. Bacteriology of water, milk and food	
20. Skin scarpings, swabs and CSF collection and wet collection for fungal examination	
21. VDRL test	
22. Identification of hemoparasites through thin film procedures	
23. Liver function tests, Kidney Function Tests, Thyroid Function Tests, Pulmonary Function Tests	
24. Model layout of Animal House, care, blood collection, Use of anesthesia and common diseases of lab animal and prevention	
Field visit	100 marks
Viva	10 marks
Internal Assessment	15 marks

• Pass mark in all papers - 40% of the total mark in all papers


signature of Principal


Signature of Coordinator

Principal
Pub Kamrup College
P.O. Baihata Chariali