

Program	Bachelor of Science in Public Health					
Module Category	Supportive					
Module Name	Pre-Clinical Module					
Module Code	PreC-M2103					
Module credit	08 ECT					
Clustered Courses in the Module						
Sr. no.	Course Name	Course Code	ETCTS	Credit hrs		
1	Clinical Laboratory Methods	CLab2101	3	2		
2	Introduction to Nursing Art	Nurs2102	2	1		
3	Physical Diagnosis	PHYD3103	3	2		
Sr. no.	Course Name	Course Code	ETCTS	Credit hrs		
Module description	This module is intended to acquaint students with knowledge and skill on laboratory procedures and familiarize students with laboratory equipment. The module also equips students with holistic approach to patient care and train patients/clients for self-care and performs the nursing process. Moreover, the module is intended to provides the health officer students basic knowledge, skills and techniques of history taking, physical examination and systematic approach towards diagnosing health problems of patients					
Module Competency	• Ability of the student: to use medical laboratory equipment’s appropriately, do routine laboratory tests and interpret laboratory test results, apply nursing standard to improve the service quality to the patient, take patient history and perform a systematic physical examination in order to distinguish between normal and abnormal physical findings.					
Module Objective	At the end of the course, students will be able to 1. Use medical laboratory equipment’s appropriately, do routine laboratory tests and interpret laboratory test results 2. Recognize important social and psychological aspects of patient care and apply principles and concepts of nursing and nursing standards in helping individuals in need of health care. 3. Take patient history and perform a systematic physical examination for the approach towards diagnosing health problems in order to distinguish between normal and abnormal physical findings.					
Course: Clinical laboratory methods	COURSE CODE: CLAB210	1 ETCTS: 3				
Mode of Delivery	Block					
Mode of Assessment		Formative and summative				
Study hours	Home Study	Lecture	Tutorial		Group work	Total
	10	16	6	11	48	81
Course description	The course encompasses the topics: microscope and its use, introduction about some laboratory equipment’s, describe some hematological tests (including CBC and ESR) and their clinical significances, description of					

	the liver and renal function tests, overview on serological tests (including Widal, Weil Felix and HCG tests); ABO and Rh blood grouping; prepare and examine a Gram and ZeihlNeelsen stained smears; define and describe routing urinalysis, description of the common parasitological tests.			
Course objectives	at the end of the course, students will be able to: 1. Use medical laboratory equipment's appropriately 2. Do routine laboratory tests ➤ Interpret laboratory test results			
weeks	Chapter/Topic/Sub-Topic	Contact Hours	Reading Materials	Lab practical topics/Activities*
1st	Introduction to Clinical Laboratory Methods <input type="checkbox"/> the role of clinical laboratory in the health care system <input type="checkbox"/> selection of appropriate laboratory tests <input type="checkbox"/> evaluation and interpretation of laboratory results <input type="checkbox"/> evaluation of diagnostic tests <input type="checkbox"/> reference range	1hr	Chees brough: Medical laboratory manual for tropical countries Vol I. Tietz, Fundamentals of Clinical Chemistry, Chapter 4 F.Baker e.t. al Introduction to Medical Laboratory Technology ,6th ed.,1985 John D. Bauer. Clinical Laborat Methods, 9thed, 1982 John D. Bauer. Clinical Laborat Methods, 9thed, 1982	ory
	Basic hematological tests • Sample collection for hematological tests • Anticoagulant • Basic hematological tests <input type="checkbox"/> Completeblood cell count (total WBC count, differential count, RBC count, hematocrit, Hgb, RBC index,	3 hrs		

	platelet count and bleeding disorder...) <input type="checkbox"/> ESR <input type="checkbox"/> Blood film (blood cell morphology and hemo parasite diagnosis ) • Classification and laboratory diagnosis of anemia • Classification and diagnosis of leukemia			
2 <sup>nd</sup>	Basic serological tests • Principles of serological tests • Serological test for the diagnosis of infectious disease <input type="checkbox"/> Sysphlis serology <input type="checkbox"/> Widal <input type="checkbox"/> Weil flex <input type="checkbox"/> HIV serology <input type="checkbox"/> Serology of H.pylori • Serological test for detection of HCG	2 hrs		
2 <sup>nd</sup>	Immunoematology • blood grouping and Rh typing • blood transfusion • cross matching • Hemolytic diseases of the new born	2hrs	Bryant. Introduction to Immunoematology 2 <sup>nd</sup> edition, 1992. Jean Jorgenson Linne. Basic techniques for the medical laboratory, 3 <sup>rd</sup> ed.1979	
2 <sup>nd</sup>	•	Medical laboratory Manual for	2 <sup>nd</sup>	

		<p>Tropical countries, 2<sup>nd</sup> edition.  Cheesbrough Monica. Volume 1.  Low priced edition.1987  Medical laboratory Manual for Tropical countries, 2<sup>nd</sup> edition.  Cheesbrough Monica. Volume 1.  Low priced edition.1987</p>		
2 <sup>nd</sup>	<p>Basic urine tests</p> <ul style="list-style-type: none"> <li>• Urine sample collection</li> <li>• methods of urine preservation and the effect in unpreserved urine</li> <li>• examination of urine specimen <ul style="list-style-type: none"> <li>✓ physical examination</li> <li>✓ chemical examination</li> <li>✓ microscopic examination</li> </ul> </li> </ul>	2hrs	Free AH, Free HM, urinalysis in clinical Laboratory practice. Cleveland, cRC press 1975.	
1 <sup>st</sup>	<p>Basic clinical chemistry tests</p> <ul style="list-style-type: none"> <li>• Definition and instruments used in clinical chemistry</li> <li>• Liverfunction tests</li> <li>• Test for the diagnosis of diabetes mellitus</li> <li>• Glucose tolerance test</li> <li>• Kidney function test</li> <li>• Methods for</li> </ul>	3hrs	<p>Teitz,Fundamentals of Clinical Chemistry, Chapter 36  Tietz, Fundamentals of Clinical Chemistry, Chapter 21 &amp; 34  Tietz, Fundamentals of Clinical Chemistry, Chapter 18  Stevens C D., Clinical</p>	

	detection of plasma protein		Immunology and Serology, a laboratory perspective. 3 <sup>rd</sup> ed, F.A. Davis Company, Philadelphia,2010 Cheesbrough: Medical laboratory manual for tropical countries Vol I Stevens C D., Clinical Immunology and Serology, a laboratory perspective. 3 <sup>rd</sup> ed, F.A. Davis Company, Philadelphia,2010 Jean Jorgenson Linne. Basic techniques for the medical laboratory, 3 <sup>rd</sup> ed.1979	
<p>Laboratory methods for diagnosis of parasitic infections</p> <ul style="list-style-type: none"> <li>• Specimen collection for the diagnosis of parasitological test</li> <li>• Methods of detection of parasites</li> <li>• Concentration techniques</li> <li>• Preservation and permanent mounting</li> </ul>	2hrs	<p>Craig and Faust's clinical parasitology., Ernest carroll Faust, paulfarr Russell, Rodney Clifton Jung,. 8<sup>th</sup> ed. Lea &amp;Febiger, Philadelphia; 1977.</p> <p>Craig and Faust's clinical parasitology., Ernest carroll Faust, paulfarr Russell, Rodney Clifton Jung,. 8<sup>th</sup> ed. Lea &amp;Febiger, Philadelphia;1977.</p> <p>Medical laboratory Manual for</p>		

		Tropical countries, 2 <sup>nd</sup> edition. Cheesbrough Monica. Volume 1. Low priced edition.1987		
2 <sup>nd</sup>	Final Exam			
Teaching and learning methods	✓Classroom contact/Lecture ✓interactive tutorial sessions (group work/discussions) and individual			
Assessment	Test 1 =10% Test 2 =10% Test 3 =10% Assignment =20% Final examination =50%			
Course Expectation	<ul style="list-style-type: none"> <li>• Make active participation during discussions (you must participate in class). If you are working in a group or with a partner, you must be a part of the group.</li> <li>• Complete the assignments and other activities on time.</li> </ul> Use your time for group work and home study effectively.			
Course Policy	Attendance: It is compulsory come to class on time and every time. If you are going to miss more than three classes during the term, you should not take this course. Assignments: you must do your assignment on time. No late assignment will be accepted. Exams: you will have short quizzes and tests almost every class session. If you miss the class or, are late to class, you will miss the quiz or test. No makeuptests or quizzes will be given. Cheating: you must do your own work and not copy and get answers from someone else. The only way to learn English is to do the work yourself. Also, please do not chew gum, eat, listen to recorders or CD players, wear sunglasses, or talk about personal problems. Please be sure to turn off pagers and cell phones Before class and exam sessions.			