



A- COURSE TITLE, CODE, ACADEMIC YEAR:

Clinical Practice (2) (MLT 463) 1438 – 1439 H

B- COURSE INFORMATION:

Course Code	Course Title	Credit Units			Study Level	Pre-requisites
		Total	Theory	Practical		
MLT 463	Clinical practice (2)	3	-	3	7 th	-
Course Coordinator		Extension		Email Address		
Dr. Ahmed Mohammed		-		ammohammed@taibahu.edu.sa		

C- COURSE DESCRIPTION:

By the end of this course, the medical laboratory student should be familiar with the routine work and able to use the equipment in the hospital laboratory in the field of clinical chemistry.

The student has to improve his knowledge about the laboratory findings in diabetes mellitus, renal diseases, liver disease, and can monitor therapeutic drugs. The medical laboratorian can correctly and safely handle any biological fluid such as blood, urine, CSF, semen, and easily interpret the results of the parameters he tested in the laboratory.

D- COURSE OBJECTIVES:

- Apply the knowledge required during the theoretical part of medical laboratories in a hospital setting.
- Practice the provision of medical laboratories techniques in the field of clinical chemistry.
- Collect samples from a patient in a correct container and separate serum or plasma;
- Run the samples, standards, control materials, and calibrators correctly.
- Relate the expected laboratory results associated with the disease;
- Discuss the concept of renal and liver diseases and what laboratory tests may be performed to diagnose them.
- Acquiring the skills of achieving urine analysis.
- Providing accurate information in an easy way to be used in the hospital.

E- THEORY TOPICS:

Week	Practical Session	Contact Hours
1	Blood & urine glucose	3
2	Oral Glucose Tolerance Test (OGTT)	3
3	Plasma lipid Profile	3



4	Urea, creatinine and creatinine clearance	3
5	Electrolytes (Sodium and potassium)	3
6	Calcium & phosphorus	3
7	Serum proteins (total protein, albumin, globulins)	3
8	Serum bilirubin (total & differential)	3
9	Liver enzymes	3
10	Cardiac markers	3
11	Tumor markers	3
12	Hormonal assay	3
13	Hormonal assay	3
14	Urinalysis	3
15	Urinalysis	3

G- ASSESSMENT TASKS:

#	Type of assessment task	Week	Total Grades
1	Assignments	All over the course	10%
2	Other Assessment Methods: e.g. Quizzes	All over the course	10%
3	Laboratories and Hospitals work (e.g. Attitude, Safety, punctuality, behavior, discipline, ethics, and attendance....etc.)	All over the course	10%
4	Oral exam	Week 12	10%
5	Practical Tests	Week 13	20%
6	Final written examination	Final exam time table	40%

H- LEARNING RESOURCES:

1- Required textbook:

1- Michael L. Bishop et.al. (2014) Clinical chemistry principles, procedures, correlations. Lippincott.

2- Essential references:

2- Varley H.(2002). Practical clinical biochemistry; 4th edition. Arnold

3- Carl A. Burtis; Edward R. Ashwood.(1996) Tietz fundamentals of clinical chemistry. 4th edition. Saunders.



Notes:

- Assignments topics and requirements shall be announced by the end of Week-1, the deadline for submission is 12pm Thursday of Week-10 (each semester).
- Assignments and written assessment tasks must be verified against plagiarism; the maximum acceptable percentage is determined by the department (according to each level).
- Continuous assessments may include quizzes, internet searches, home-works, exercises, class activity, scratch cards, presentations, group work, etc.
- Practical exams may contain hands-on experiments, laboratory work, simulations, or demonstrations.
- Written exams will include multiple-choice questions (MCQ), short essay questions, and long essay questions.