Kingdom of Saudi Arabia
Taibah University – Madinah
College of Applied Medical Sciences
Department of Clinical Laboratory Sciences

A- COURSE TITLE, CODE, ACADEMIC YEAR:
Quality Assurance & Laboratory Management (MLT 458) 1440-1441H

B- COURSE INFORMATION:

Course Code	Course Title	Credit Units			Study Level	Pre-requisites
		Total	Theory	Practical		
MLT 458	Quality Assurance & Laboratory Management	2	2	-	8th	-

Course Coordinator	Extension	Email Address
Dr. Bandar Suliman		bsuliman@taibahu.edu.sa

C- COURSE DESCRIPTION:

By the end of the course, the students will gain competencies in the nature of management and quality assurance of the clinical laboratory. The students will be trained to interpret control charts They will acquire understanding of the managerial-organizational communication control charts, knowledge quality assurance of clinical chemistry, hematology, blood bank, microbiology, parasitology, and histopathology. The students will acquire knowledge and be practically trained how to write standard operating procedures, and will come to be capable to detect random and systematic errors, and will acquire knowledge about leadership style and group effectiveness

D- COURSE OBJECTIVES:

1. The students will acquire understanding of the control charts
2. The students will acquire knowledge quality assurance of clinical chemistry, hematology and microbiology.
3. The students will acquire knowledge and will be practically trained how to write standard operating procedures.
4. The students will come to be capable to detect random and systematic errors.
5. The students will state problem solving & decision-making process, financial management and laboratory accreditation
6. The students will compare internal quality control with external quality assessment.

E- THEORY TOPICS:

Week	Theory Topic	Contact Hours
1	Medical Lab Quality Assurance Overview	2
2	Quality Assurance in Clinical Laboratories	2
3	Pre-analytical, Analytical Phase & Post-analytical Phases	2
4	Control Charts & Reference Intervals	2
5	POCT & Use of Patient Data for QC	2
6	Response of Control Rules to Errors	2
7	Standard Operating Procedures (SOPs)	2

8	Quality Control in Clinical Chemistry & Histopathology	2
9	Quality Control in Hematology , Blood Bank Microbiology & Parasitology	2
10	Quality Tools	2
11	Administrative process & management in the clinical laboratory	2
12	Leadership Style and Group Effectiveness	2
13	Basics of laboratory safety & Financial Management	2
14	Laboratory Management Information systems	2
15	External Quality Assurance, ISO & Laboratory Accreditation	2

F- ASSESSMENT TASKS:

#	Type of assessment task	Week	Total Grades
1	Assignment submission	Week 10	10%
2	Midterm examination (written)	Weak 8	20%
3	Other Assessment Methods: e.g. Quizzes, Internet searches, Home works, Class activity, Exercises, Scratch Cards, Presentations, Group work……etc	Weeks 1-16	30%
4	Final written exam	Weak 18	40%

G- LEARNING RESOURCES:

1- Required textbook:

- Tietz Fundamentals of Clinical Chemistry – 6th Edition Carl A., Burtis; Edward R. Ashwood and David E. Bruns - 2007- – United States- Saunders Elsevier. (New edition) Ratliff T. (2014).
- The Laboratory Quality Assurance System: A Manual of Quality Procedures and Forms 3rd Edition ISBN-13: 978-0471269182 ISBN-10: 0471269182.

2- Essential references:

- Oxford Handbook of Medical Statistics (Oxford Medical Handbook)

Notes:

- Assignments topics and requirements shall be announced by the end of Week-2, 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 assessment methods may include quizzes, internet searches, home-works, exercises, class activity, scratch cards, presentations, group work, etc.
- Written exams will include multiple-choice questions (MCQ), short essay questions, and long essay questions.