Course Specifications

Course Title:	**Laboratory Management and lab safety**
Course Code:	CLS 485
Program:	**Bachelor of Applied Medical Science in Clinical Laboratory Sciences** cls86
Department:	**Clinical Laboratory Science**
College:	**Applied Medical Sciences –Aldawadmi**
Institution:	**Shaqra University**

Table of Contents

A. Course Identification

1. Credit hours: 2 units Lecture 2(2+0)	
2. Course type	
a. University [ ] College [ ] Department [√] Others [ ]	
b. Required [√] Elective [ ]	
3. Level/year at which this course is offered: Level 8- 4th year	
4. Pre-requisites for this course (if any)**:None**	
5. Co-requisites for this course (if any)**:None**	

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	6	20%
2	**Blended**	24	80%
3	**E-learning**		
4	**Correspondence**		
5	**Other**		

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	**Lecture**	24
2	**Laboratory/Studio**	--
3	**Tutorial**	--
4	**Others** (specify)	
	Total	24
Other Learning Hours*		
1	**Study**	2
2	**Assignments**	2
3	**Library**	6
4	**Projects/Research Essays/Theses**	-
5	**Others**(presentation)	8
	Total	18

***The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course Description

Laboratory Management & lab safety deals with the study of basic concepts of management, planning, organizing, leading, staffing, controlling as applied to a clinical laboratory set-up like quality assurance/quality control; policy and procedure manuals; lab safety, infection control, etc..

2. Course MainObjective:

is a course that will enable the CLS students to:

- ❖ explain the different processes of management;
- ❖ prepare and critique organizational chart; procedure and policy manual; general physical plan and layout; and job description; and
- ❖ manifest desire to develop the clinical laboratory scientist's personal, social and professional responsibilities in helping, restoring or maintaining the health of men of high moral and ethical standards that are required of the profession.
- ❖ Explain the lab safety measures and precaution which take with different laboratory work.

3. Course Learning Outcomes

	CLOs	AlignedPLOs
1	**Knowledge:***At the end of the course, the student will be able to:*	
1.1	define leadership within the context of the functions of management;	K1
1.2	describe the six phases of the communication process; and	K1
1.3	define the concept of quality from the perspective of successful management of health care organizations and the provision of services for patient care.	K1
1.4	describe the lab safety measures and precaution which take with different laboratory work.	K1
2	**Skills :***At the end of the course, the student will be able to:*	
2.1	explain the process of work analysis and job design;	S1
2.2	evaluate OSHA standards as they relate to the specific requirements of the laboratory; and other organizations	S2
2.3	explain the methods and options available to finance a laboratory project or purchase an instrument;	S4
2.4	evaluate a strategy for overcoming communication obstacles and improving the process	S1
2.5	prepare a quality system implementation plan;	S3
2.6	Prepare and write job descriptions; and	S1
2.7	design and implement a quality management program for a medical laboratory.	S4
3	**Competence:***At the end of the course, the student will be able to:*	
3.1	develop and apply critical thinking skills;	C3
3.2	demonstrate the role of a professional; and	C2
3.3	develop and show a keen sense of responsibility, integrity and professional ethics.	C1,C4

C. Course Content

No	List of Topics	Contact Hours
1	Course Enrollment and Registration	**2**
2	Introduction to Laboratory Management& lab safety	**2**
3	Leadership 1. Organizational Factors that Influence Leadership Success 2. Leadership Models Management Processes 1. Planning 2. Organizing 3. Leading 4. Staffing 5. Control	**6**
4	**First Midterm Examination**	**2**
5	Licensing Job Description/Specification 1. Job Design 2. Job Analysis 3. Application of Job Design Information 4. Job Descriptions Policy and Procedure Manual 1. Overview 2. Objectives of Policy and Procedure Manuals 3. Types of Policy and Procedure Manuals 4. Writing Policy and Procedure Manuals Laboratory budget 1. The Operational Budget 2. The Capital Budget Communication 1. The Communication Process 2. Communication Networks and Channels 3. Personal and Organization Communication Links 4. Barriers to Communication Improving the Communication Process	**10**
...	**Second Midterm Examination**	**2**

	Principles of Marketing 1. Laboratory-Customer Relationships 2. The Marketing Philosophy 3. The Market Environment for Medical Laboratory Services 4. The Laboratory Customer 5. The Four P's of Marketing 6. The Marketing Plan Quality Assurance 1. Historical Perspective: Quality Concepts and Terminology Transition 2. Major Figures in Quality Management 3. Quality Monitoring and Assessment Tools 4. Management of Quality Laboratory Safety 1. Hazards of the Workplace: A Matter of Attitude 2. Hazards in the Workplace 3. OSHA Pathogen Regulations 4. Management of Laboratory Safety	**4**
	Final Examination	2
Total		30

D. Teaching and Assessment

1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	TeachingStrategies	AssessmentMethods
1.0	**Knowledge**		
1.1	define leadership within the context of the functions of management;	(a) Interactive Lecture/Discussion (b) Report Back Session (c) Power point/Multimedia Presentation (g) Reading (h)assignment/Homework	(a) Paper and Pencil Tests (b) Baseline Assessments (e) Multiple choice questions (g) Tests and quizzes (h) Assignments (i) Final written examination at the end of semester
1.2	describe the six phases of the communication process; and		
1.3	define the concept of quality from the perspective of successful management of health care organizations and the provision of services for patient care.		
1.4	describe the lab safety measures and precaution which take with different laboratory work.		
2.0	**Skills**		
2.1	explain the process of work analysis and job design;	(a) Interactive Lecture/Discussion (c) Power point/Multimedia Presentation (f) Large Group Discussion (g) Reading	(a) Paper and Pencil Tests (b) Demonstration (c) Prepare an illustrated manual on using the equipment ((g) Final written examination at the end
2.2	evaluate OSHA standards as they relate to the specific requirements of the laboratory; and		
2.3	explain the methods and options available to finance a laboratory project or purchase an instrument;		

Code	Course Learning Outcomes	TeachingStrategies	AssessmentMethods
		(h)assignment/Homework	of semester
2.4	evaluate a strategy for overcoming communication obstacles and improving the process	(a) Teaching and learning in English to improve student communication skills. (b) Student involvement in seminars. (c) Internet search and assignments	(a) Written presentation (essay, report, reflective paper etc.) (b) Oral presentation (c) Problem scenario (d) Work-based problem (e) Seminar evaluation (f) Examinations should be answered in English language (g) Marks given to for good reports and presentations
2.5	prepare a quality system implementation plan;		
2.6	Prepare and write job descriptions; and	(b) Emulation of the study skills for scientists and quantitative methods (c) Engage students in analysis and evaluation of their presentation work	(a) Demonstration (b) Prepare an illustrated manual on using the equipment, for a particular audience (f) Observation of real or simulated professional practice (g) In-class tests
2.7	design and implement a quality management program for a medical laboratory.		
3.0	**Competence**		
3.1	develop and apply critical thinking skills;	(a) Assignment (b) Internet search (c) assignment/Assigned Homework (d) Small Project	(a) Journal (b) Evaluation of assignments and search work. (c) Observation of student ethical and moral behavior.
3.2	demonstrate the role of a professional; and		
3.3	develop and show a keen sense of responsibility, integrity and professional ethics.		

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	First Midterm Examination	Week 6	15%
2	Second Midterm Examination	Week 12	15%
3	Quizzes	During the Semester	10%
4	oral presentation	During the Semester	5%
5	Assignment	During the Semester	5%
6	Final Examination	Week 15	50%
7			
8			

***Assessment task** (i.e., written test, oral test, oral presentation, group project, essay, etc.)

E. Student Academic Counseling and Support

Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice :

All the Teaching Staff are available to assist and support the students if they have any questions or inquiries.From the start, they were given the schedule of their lectures, presentation, tutorials for the whole semester. The students were divided into small groups and are allocated to each Teaching staff. They can have academic advicewith their Consultants 2 – 3 times per week. In addition to contact daily with the teaching staff.

(a) Office hours (4 hours / week / staff)
(b) Regular meeting with course organizer and the team leader.
(c) Course 2 hours per week for any inquiry and support for the students.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	❖ Varnadoe, Lionel A., **Medical Laboratory Management and Supervision Operations, Review and Study Guide.**latest edition. ❖ Mcpherson, Richard A. and Matthew R. Pincus. **HENRY' S CLINICAL DIAGNOSIS AND MANAGEMENT BY LABORATORY METHODS.** 21st ed. Philadelphia: Elsevier Inc., 2007.
Essential References Materials	❖ Clinical Laboratory Management: A Guide for Clinical Laboratory Scientists by Rex B. Conn, MD
Electronic Materials	❖ The Clinical Laboratory Management Association, http://www.clma.org/ ❖ American Society of Clinical Pathology, http://www.ascp.org/ ❖ *Centers for Disease and Prevention, www.cdc.gov/*
Other Learning Materials	Computer-based programs/CD, professional standards or regulations and software of lab management &lab safety.

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	❖ Classrooms ready and equipped with educational media ❖ Lecture rooms are air conditioned with at least 35 seats ❖ LCD projectors are available in the lecture rooms ❖ Smart Board available in the lecture rooms ❖ Laptop and desktop computers ❖ Central printer and scanner ❖ library (Up-to-date scientific books in the library)

Item	Resources
Technology Resources (AV, data show, Smart Board, software, etc.)	❖ LCD Projector ❖ Smart Board ❖ Internet (Wifi) connection in the lecture and laboratory rooms ❖ Desktop computer and microphone in lecture rooms.
Other Resources (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	----

G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
❖ Regular evaluation of the theoretical of the course to identify the weaknesses.	❖ Program Leaders	❖ A statistical regular review and analysis of the students' achievement in the department.
❖ Performance appraisal form filled out by each student to show level of fulfillment.	❖ Students	❖ Prepare a questionnaire which should be filled by the students at the end of the term.
❖ Confidential completion of standard course evaluation questionnaire.	❖ Faculty(statistical and accreditation unit)	❖ The questionnaire should be analyzed and carefully studied
❖ Interactive Lecture/Discussion	❖ Instructor	❖ Check marking of the answer sheets of examination papers with other colleagues
❖ Students Activities and presentation	❖ Independent teacher	❖ Check progress level of the students (this can be done by an independent teacher by reviewing students' records, presentation and compare the students' work with another from a different institute).

Evaluation areas (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes,Qualityoflearning resources, etc.)
Evaluators (Students,Faculty, Program Leaders,PeerReviewer, Others (specify)
Assessment Methods(Direct, Indirect)

H. Specification Approval Data

Council / Committee	Clinical Laboratory Department Council
Reference No.	
Date	18/6/1441------ 12/2/2020