



Program Specification

Program Name: Bachelor Degree in Clinical Laboratory Sciences
Qualification Level : Bachelor Degree (level 6 according to SAQF 2020)
Departments: Clinical Laboratory Sciences- Sakaka and Clinical Laboratory Sciences- Qurayyat
College: Applied Medical Sciences
Institution: Jouf University

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A. Program Identification and General Information

1. Program Main Location:

College of Medical Applied Sciences, Main Campus (Male) –Sakaka -Jouf region, KSA

2. Branches Offering the Program:

Branch 1: Female Campus – Laqaet – Sakaka, Jouf region, KSA

Branch 2: Male Qurayyat branch, Jouf region, KSA

Branch 3: Female Qurayyat branch, Jouf region, KSA

3. Reasons for Establishing the Program:

(Economic, social, cultural, and technological reasons, and national needs and development, etc.)

The Bachelor of clinical laboratory sciences program was established to build well-qualified graduate in the area of diagnosis the diseases, scientific research as well as community service, in accordance with KSA vision 2030.

1. Preparing nationally qualified laboratory specialists is able to satisfy the needs of diagnostic health centers including hospitals and primary care health centers, which is contributing to the reduction of unnecessary expenses for recruiting clinical laboratory personnel from outside KSA.
2. Socio- reasons:
The KSA National policy in health care is to provide the best care for citizens through preparing national cadres who are able to work independently with high skills in the clinical laboratory field to serving all communities of KSA.
3. Cultural reasons:
The Saudi National policy in health care is to provide the best care for Saudi citizens and that is can be achieved by graduation of new generation who are able to work effectively in clinical laboratory sciences in the Kingdom so as to serving the public community and developing the clinical laboratory practice.
4. Technological reason:
The clinical laboratory program is concerning about the use of the most advanced technology in the field of the clinical laboratory in order to provide excellent service to the community through the diagnosis of diseases and scientific research by national cadres.

4. Total Credit Hours for Completing the Program: (136 credit hours)

5. Professional Occupations/Jobs:

The students who receive a graduate degree from the national universities receive their training from the government hospitals as an internship program during the last semester of their graduation.

Professional Occupations/Jobs:-

- Clinical lab scientists (specialist).

- Researcher

- Teaching assistant

- Instructor

In fields of:-

- Hospitals and health centers.

- Research Centers.

- Education sector, institutes, and universities.

- Pharmaceutical companies.

- Health and governmental bodies.

- Education sector, institutes, and universities.

- Local consultants to provide expertise to emerging health marketing organizations by working in the field of laboratory product development or technical support.

- Field of promotion, sales, devices, solutions, and laboratory supplies.

- Field of forensic sciences.

Note:-

After the internship period the graduate students from the national universities most appear in exams for the profession of laboratory specialist for Saudi Commission for Health Specialties licensing to get a license.

6. Major Tracks/Pathways (if any):		
Major track/pathway	Credit hours (For each track)	Professional Occupations/Jobs (For each track)
Bachelor Degree in Clinical Laboratory Sciences	136	- Clinical lab scientists (specialist) in hospital. - Researcher in research center and universities. - Teaching assistant in Health sector collages - Instructor
7. Intermediate Exit Points/Awarded Degree (if any):		
Intermediate exit points/awarded degree	Credit hours	
NA	-----	

B. Mission, Goals, and Learning Outcomes

1. Program Mission:
The Program of Clinical Laboratory Sciences is committed to prepare highly qualified and skilled cadres in the clinical laboratory sciences field through an academic educational program and advanced practical training, conducting scientific research consistent with Islamic and moral values, and provide excellent services to the community.
2. Program Goals:
<ol style="list-style-type: none"> 1. Build theoretical knowledge and evidence-based practice in clinical laboratory fields. 2. Apply principles and procedures technical processes to exhibit high quality laboratory services. 3. Develop the research methods in clinical laboratory practice to contribute in healthcare improvement. 4. Promote leadership and teamwork to deliver of high quality health care services. <p>Objectives:</p> <ol style="list-style-type: none"> 1. Accommodate recent advances in clinical laboratory sciences education. 2. Create a positive academic environment through an educational support system. 3. Assure compliance of using modern teaching strategies. 4. Develop students' skills in processing and analyzing specimens. 5. Develop infrastructure and resources that support the research environment. 6. Conduct scientific research based on the community and program educational needs. 7. To build communication with the community. 8. Apply leadership ideas and skills in the provision of community services.

3. Relationship between Institution, College and Program Mission

Mission of Jouf University	Mission of College of Applied Medical Sciences	Mission of Clinical Laboratory Sciences Program
<p>1. Providing distinguished education and research outcomes to develop the community.</p>	<p>1.1 Preparing and qualifying cadres capable of competing in applied medical specialties through the provision of academic and educational programs of high quality and conducting specialized scientific researches that conform to values and norms which meet with the developmental and health-care needs of society.</p>	<p>1.1.1 The Program of Clinical Laboratory Sciences is committed to prepare highly qualified and skilled cadres in the clinical laboratory sciences field through an academic educational program and advanced practical training, conducting scientific research consistent with Islamic and moral values, and provide excellent services to the community.</p>

The point of agreement: The matrix showed that there is a correlation between the mission of the university, the college and the program. The Clinical Laboratory Program contributes to disease prevention and control through accurate diagnosis, advanced research and community health education. The program uses advanced molecular diagnostic and immunological tools to achieve an accurate and accurate result for appropriate treatment for patients, following the Kingdom's 2030 vision

Relationship between Institution, College and Program Objectives

Objectives of Jouf University	Objectives of Applied Medical Sciences	Objectives of Clinical Laboratory Sciences Program
<ol style="list-style-type: none"> 1. Improving academic and scientific performance to meet market and community needs. 2. Promoting interactive learning education 	<p>Providing an academic and administrative environment that is motivated for acquiring Medical scientific knowledge.</p>	<ol style="list-style-type: none"> 1. Create the positive academic environment through educational support system. 2. Assure compliance of using modern teaching strategies.
<ol style="list-style-type: none"> 3. Completion of lab equipment for undergraduate students. 	<p>Preparation of qualified health-cadres capable to keep up-to-date with scientific and modern medical developments.</p>	<ol style="list-style-type: none"> 3. Accommodate recent advances in clinical laboratory sciences education. 4. Develop students' skills in processing and analyzing specimens.
<ol style="list-style-type: none"> 4. Increasing research opportunities for undergraduate students 	<p>Providing the facilities for conducting and publishing applied medical researches that contributes to scientific progress.</p>	<ol style="list-style-type: none"> 5. Develop infrastructure and resources that support the research environment.
<ol style="list-style-type: none"> 5. Attracting highly qualified faculty members and their assistants 	<p>Recruiting the distinguished and competencies staff in education and scientific research.</p>	<ol style="list-style-type: none"> 6. Conduct scientific research based on the community and program educational needs.
<ol style="list-style-type: none"> 6. Development of communication skills, group and leader work and information technology for students according to their specializations 	<p>Contribute effectively in community service and development.</p>	<ol style="list-style-type: none"> 7. To build communication with the community. 8. Apply leadership concepts, skills, in the provision of community services.
<p>Alignment point: It is evident from the matrix that there is a strong relationship between the Objectives of the university, the college, and the program. The clinical laboratory program provides basic practical and theoretical knowledge in the field of medical laboratory sciences to the students, which preparing them for diagnosis of diseases and conducting scientific research, which serves community health. Based on the vision of the Kingdom 2030.</p>		

4. Graduate Attributes:

Jouf University Graduate Attributes	Clinical Laboratory Sciences Graduate Attributes
<ul style="list-style-type: none"> • The ability to remember the knowledge, and to develop a wide range of skills that they have learned and continuity to increase it. • Demonstrate of a comprehensive, coordinated and systematic set of knowledge in a specific field of study, and theories and principles related to that field. • The ability to research complex problems and find innovative solutions under a limited amount of guidance, using insights from their field of study, and from other related fields. • The ability to research complex problems and find innovative solutions under a limited amount of guidance, using insights from their field of study, and from other related fields • The ability to lead, and the willingness to fully cooperate with others on joint projects and initiatives • 6.Integrated field of knowledge and skills is required for effective practice in the required professional field 	<ul style="list-style-type: none"> • Committed to Islamic traditions. • Have the knowledge and skills needed to provide health care services with reliable laboratory findings. • Demonstrate professionalism through honesty, integrity and confidentiality of patient results. • Demonstrate respect for the dignity and privacy of patients. • Communicate effectively and inspire confidence with patients, colleagues, physicians, and other health care team members. • Possess basic knowledge in conducting scientific research. • Contribute to the general wellbeing of community and respect the religious culture and social constants of society.
<p>The point of agreement: The attributes of a graduate of the Clinical Laboratory Sciences Program are consistent with the attributes of a graduate of Jouf University in terms of adherence to Islamic traditions and the knowledge required in the field of laboratories linked with professional practical skill and skill in dealing with others and the ability to conduct scientific research and contribute to community service to improve health services from the perspective of the Kingdom's 2030 vision.</p>	
Saudi-MEDs Saudi medical graduates	Clinical Laboratory Sciences Graduate Attributes
<ul style="list-style-type: none"> • Scientific approach to practice. • Patient care. • Research & scholarship • Professionalism • Communication & Collaboration • Community oriented practice 	<ul style="list-style-type: none"> • Committed to Islamic traditions. • Have the knowledge and skills needed to provide health care services with reliable laboratory findings. • Demonstrate professionalism through honesty, integrity and confidentiality of patient results. • Demonstrate respect for the dignity and privacy of patients. • Communicate effectively and inspire confidence with patients, colleagues, physicians, and other health care team members. • Possess basic knowledge in conducting scientific research. • Contribute to the general wellbeing of community and respect the religious culture and social constants of society.
<p>The point of agreement: The attributes of a graduate of the Clinical Laboratory Sciences Program are consistent with the attributes of Saudi-MEDs Saudi medical graduates in terms of adherence to Islamic traditions and the knowledge required in the field of laboratories linked with professional practical skill and skill in dealing with others and the ability to conduct scientific research and contribute to community service to improve health services from the perspective of the Kingdom's 2030 vision.</p>	

5. Program learning Outcomes*	
Knowledge and Understanding:	
Students/Graduates will be able to:-	
K1	Outline the principles, main concepts, theories and terms in clinical laboratory sciences.
K2	Demonstrate features, principles and procedures of laboratory testing, interpretation of their finding, and research methodology.
K3	Recognize the normal organs functions and mechanisms of various pathological conditions precisely
K4	Organize , present and analyze data using a methodology appropriate to Clinical laboratory sciences research
Skills:	
Students/Graduates will be able to:-	
S1	Apply the basic experiments and techniques in the major fields of clinical laboratories and scientific research in safe and effective way
S2	Analyze the critically and different problems and challenges in order to achieve accurate and reliable result.
S3	Use accurately advance and smart devices for analyzing the clinical specimens
S4	Evaluate the information output from computer-related laboratory machine in order to utilize them for laboratory tests.
Values:	
Students/Graduates will be able to:-	
V1	Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility, and play a major role in joint work planning and evaluation
V2	Perform personal integrity, respect, honesty and Islamic ethical behavior when dealing with patients, Community members and the healthcare team
V3	Demonstrate the ability to handle stressful situations calmly and efficiently

* Add a table for each track and exit Point (if any) Nil

C. Curriculum

1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	8	25	18.4%
	Elective	3	6	4.4%
College Requirements	Required	7	20	14.7%
	Elective	0	0	0
Program Requirements	Required	30	81	59.5%
	Elective	1	2	1.5%
Capstone Course/Project		1	2	1.5%
Field Experience/ Internship	Required	One year hospital training after graduation		
Others		-	-	
Total		50	136	100%

* Add a table for each track (if any)

1. Program Study Plan

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
Level 1	ENGL 001	English Language (1)	Required	-	6	U
	EDU101	University Life Skills	Required	-	2	U
	CHM 103	Chemistry	Required	-	3	C
	CIS 101	Computer Skills	Required	-	3	U
Level 2	ENGL002	English Language (2)	Required	ENGL001	6	U
	BIO 103	Biology	Required	-	3	C
	PHS 103	Medical Physics	Required	-	3	C
	MTH 103	Bio Statistics	Required	-	3	C
Level 3	PHYS 211	Physiology	Required	Co-Requisite ANA 221	3	C
	ANA 221	Anatomy	Required	Co-Requisite PHYS 211	3	C
	CLSC 211	Biochemistry	Required	---	4	D
	CLSC 212	Analytical Techniques and Instrumentation	Required	-	2	D
	ISL 106	Medical Jurisprudence	Required	-	2	U
	ARB 100	Arabic Language Skills	Required	-	2	U
	CLSC 251 CLSC 252	Department Elective Courses - Medical Terminology (CLSC 251) - Public Health (CLSC 252)	Elective		2	D
Level 4	CLSC 221	Basic Microbiology	Required	-	3	D
	CLSC 222	Basic Immunology	Required	PHYS 211	2	D
	CLSC 241	Histotechnology	Required	ANA 221	4	D
	CLSC 242	General Pathology	Required	Co-requisites CLSC 241	3	D
	CLSC 213	Molecular Genetics	Required	CLSC 211	2	D
	ISL 107	Professional Ethics	Required	-	2	U
	ARB 102	Writing Skills	Required	ARB 100	2	U
Level 5	CLSC 321	Diagnostic Mycology	Required	CLSC 221	2	D
	CLSC 322	Diagnostic Virology	Required	CLSC 221	1	D
	CLSC 311	Diagnostics Molecular Biology	Required	CLSC 213	3	D
	CLSC 323	Diagnostic Immunology	Required	CLSC 222	2	D
	CLSC 341	Cytopathology	Required	CLSC 242	2	D
	CLSC 324	Diagnostic Parasitology	Required	CLSC 221	3	D
	CLSC 325	Diagnostic Bacteriology (1)	Required	CLSC 221	3	D
ISL 105 ISL 108 ISL 109	University Elective (Group 1) -Human Rights (ISL 105) - Contemporary Issues (ISL 108)	Elective		2	U	

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
		- The Role of Women in Development (ISL 109)				
Level 6	CLSC 331	Hematology (1)	Required	PHYS 211	3	D
	CLSC 332	Coagulation and Hemostasis	Required	Co-requisites CLSC 331	2	D
	CLSC 351	Urine analysis and Body Fluids	Required	CLSC 221 CLSC 341	2	D
	CLSC 352	Scientific Research Methods	Required	-	2	C
	CLSC 326	Diagnostic Bacteriology (2)	Required	CLSC 325	3	D
	CLSC 312	Diagnostic Clinical Chemistry (1)	Required	CLSC 211	4	D
	ISL 105 ISL 108 ISL 109	University Elective (Group 1) -Human Rights (ISL 105) - Contemporary Issues (ISL 108) - The Role of Women in Development (ISL 109)	Elective		2	U
Level 7	CLSC 411	Diagnostic Clinical Chemistry (2)	Required	CLSC 312	4	D
	CLSC 431	Blood Bank	Required	CLSC 323	3	D
	CLSC 432	Hematology (2)	Required	CLSC 331	3	D
	CLSC 451	Research Project	Required	CLSC 352	2	D
	CLSC 441	Clinical Rotation- Histotechnology and Cytology	Required	CLSC 241	2	D
	CLSC 412	Clinical Rotation- Diagnostics Molecular Biology	Required	CLSC 311	1	D
	EDU 102 BUS 101	University Elective (Group 2) -Volunteer Work (EDU 102) - Entrepreneurship (BUS 101)	Elective		2	U
Level 8	CLSC 452	Lab Administration and Quality Control	Required	CLSC 411	2	D
	CLSC 433	Clinical Rotation - Hematology	Required	CLSC 432	3	D
	CLSC 434	Clinical Rotation - Blood Bank	Required	CLSC 431	3	D
	CLSC 413	Clinical Rotation- Clinical Chemistry	Required	CLSC 411	3	D
	CLSC 421	Clinical Rotation- Immunology	Required	CLSC 323	3	D
	CLSC 422	Clinical Rotation- Microbiology and Parasitology	Required	CLSC 326 CLSC 324	4	D

University Elective Groups

SN	Course Number	Course Code	Course Name	Hours				Pre-requisite
				Theoretical	Practical	Training/Exercises	Accredited	
Group (1): Courses in Islamic Studies								
The students choose two courses from the group below:								
1.	105	ISL	Human Rights	2	0	0	2	---
2.	108	ISL	Contemporary Issues	2	0	0	2	---
3.	109	ISL	The Role of Women in Development	2	0	0	2	---
Group (2): Courses in Education/ Business Administration								
The students choose one course from the group below:								
4.	102	EDU	Volunteer Work	2	0	0	2	---
5.	101	BUS	Entrepreneurship	2	0	0	2	---

Department Elective Courses

SN	Course Number	Course Code	Course Name	Hours				Pre-requisite
				Theoretical	Practical	Training/Exercises	Accredited	
1	251	CLSC	Medical Terminology	2	0	0	2	---
2	252	CLSC	Public Health	2	0	0	2	---

* Include additional levels if needed

** Add a table for each track (if any)

3. Course Specifications

Insert hyperlink for all course specifications using NCAAA template

[CLS program courses specifications](#)

4. Program learning Outcomes Mapping Matrix

Align the program learning outcomes with program courses, according to the following desired levels of performance (I = Introduced P = Practiced M = Master)

Levels	Course code & No.	Program Learning Outcomes										
		Knowledge and understanding				Skills				Values		
		K1	K2	K3	K4	S.1	S.2	S.3	S.4	V.1	V.2	V.3
1	ENGL 001	I	I				I			I		I
	EDU101	I	I			I				I	I	
	CHM 103	I			I	I	I			I		
	CIS 101	I			I	I		I				I
2	ENGL002	I	I				I			I		I
	BIO 103	I		I		I	I			I		
	PHS 103	I			I	I	I			I		
	MTH 103	I			I	I	I			I		
3	PHYS 211	I				p					I	
	ANA 221	I				p	I			I		
	CLSC 211	I		I		I						
	CLSC 212		I					I		I		
	CLSC 251	I					I		I			
	CLSC 252				I		I					I
4	CLSC 221	I				p				I		
	CLSC 222	I		I						I		
	CLSC 241		I			p					I	
	CLSC 242			I		I					I	
	CLSC 213			I			I				I	
5	CLSC 321		p				p			P		
	CLSC 322	p				p			P			
	CLSC 311		p					p		p		
	CLSC 323		p					p		p		
	CLSC 341		p					p				p
	CLSC 324	p				p					p	
	CLSC 325			p				p			p	
6	CLSC 331	P	P			p			P			
	CLSC 332			p				p				p
	CLSC 351		P		p				p			p
	CLSC 352				p		p			P		p
	CLSC 326			p				p			p	
	CLSC 312			p			p			p		
7	CLSC 411		M	M			M			M		
	CLSC 431		M					M	M			M
	CLSC 432			M				M				M
	CLSC 451				M		M			M		M
	CLSC 441						M	M			M	
	CLSC 412						M	M	M		M	
8	CLSC 452				M		M			M		
	CLSC 433						M	M			M	M
	CLSC 434						M	M			M	M
	CLSC 413						M	M			M	M
	CLSC 421						M	M			M	M
	CLSC 422						M	M			M	M

* Add a table for each track (if any)

5. Teaching and learning strategies to achieve program learning outcomes

Describe policies, teaching and learning strategies, learning experience, and learning activities, including curricular and extra-curricular activities, to achieve the program learning outcomes.

All of the teaching strategies are used according to target ILOs and all of the teaching strategies are used regarding international teaching strategies.

The program strategies include:

Domain		Teaching and learning strategies
Knowledge and Understanding: Students/Graduates will be able to:-		
K1	Outline the principles, main concepts, theories and terms in clinical laboratory sciences.	Interactive lectures , Blackboard activities, Class Discussion, Project Based Learning (PBL), Team-Based Learning,
K2	Demonstrate features, principles and procedures of laboratory testing, interpretation of their finding, and research methodology.	Interactive lectures , Blackboard activities, Class Discussion, Project Based Learning (PBL), Team-Based Learning,
K3	Recognize the normal organs functions and mechanisms of various pathological conditions precisely	Interactive lectures , Blackboard activities, Class Discussion, Project Based Learning (PBL), Team-Based Learning,
K4	Organize , present and analyze data using a methodology appropriate to Clinical laboratory sciences research.	Interactive lectures ,Blackboard activities, Class Discussion, Project Based Learning (PBL), Team-Based Learning,
Skill: Students/Graduates will be able to:-		
S1	Apply the basic experiments and techniques in the major fields of clinical laboratories and scientific research in safe and effective way	Interactive lectures, Practical work, Lab demonstrations group discussions, case studies, group projects and. Field activities, Blackboard
S2	Analyze the critically and different problems and challenges in order to achieve accurate and reliable result..	Interactive lectures, Practical work, Lab demonstrations group discussions, case studies, group projects and. Field activities, Blackboard
S3	Use accurately advance and smart devices for analyzing the clinical specimens	Interactive lectures, Practical work, Lab demonstrations group discussions, case studies, group projects and. Field activities, Blackboard
S4	Evaluate the information output from computer-related laboratory machine in order to utilize them for laboratory tests.	Interactive lectures, Practical work, Lab demonstrations group discussions, case studies, group projects and. Field activities, Blackboard
Values: Students/Graduates will be able to:-		
V1	Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility, and play a major role in joint work planning and evaluation	Practical work, Blackboard activities, Group projects, self-learning cooperative learning case studies ,clinical demonstration, Role play, Class Discussion, Blackboard.
V2	Perform personal integrity, respect, honesty and Islamic ethical behavior when dealing with patients, Community members and the healthcare team	Practical work, Blackboard activities, Group projects, self-learning cooperative learning case studies ,clinical demonstration, Role play, Class Discussion, Blackboard.
V3	Demonstrate the ability to handle stressful situations calmly and efficiently	Practical work, Blackboard activities, Group projects, self-learning cooperative learning case studies ,clinical demonstration, Role play, Class Discussion, Blackboard.

6. Assessment Methods for program learning outcomes.

Describe assessment methods (Direct and Indirect) that can be used to measure achievement of program learning outcomes in every domain of learning.

Direct Methods:

Domain	Assessment Methods strategies
Knowledge and Understanding: Students/Graduates will be able to:-	
K1	Outline the principles, main concepts, theories and terms in clinical laboratory sciences.
K2	Demonstrate features, principles and procedures of laboratory testing, interpretation of their finding, and research methodology.
K3	Recognize the normal organs functions and mechanisms of various pathological conditions precisely
K4	Organize , present and analyze data using a methodology appropriate to Clinical laboratory sciences research.
Skill: Students/Graduates will be able to:-	
S1	Apply the basic experiments and techniques in the major fields of clinical laboratories and scientific research in safe and effective way
S2	Analyze the critically and different problems and challenges in order to achieve accurate and reliable result..
S3	Use accurately advance and smart devices for analyzing the clinical specimens
S4	Evaluate the information output from computer-related laboratory machine in order to utilize them for laboratory tests.
Values: Students/Graduates will be able to:-	
V1	Work collaboratively and constructively, and lead diverse teams to perform a wide range of tasks with responsibility, and play a major role in joint work planning and evaluation
V2	Perform personal integrity, respect, honesty and Islamic ethical behavior when dealing with patients, Community members and the healthcare team
V3	Demonstrate the ability to handle stressful situations calmly and efficiently

Direct Methods:

- Progress exam conducted by the program.
- The exit exam by an agency independent of the program from within the university.
- Entry Exam: - Saudi Commission for Health Specialties (SCHS) National License Entry Exam. (The program must train students on it, starting from the seventh or sixth level until graduation)
- Standardized tests, which are specific to the English language, such as the (Standardized Test For English Proficiency (STEP)).

Indirect Methods:

- Questionnaire for stakeholder's opinion on the learning outcomes (Employer, Alumni, students, and staff member), students for curriculum and academic program, graduating students for curriculum and academic program.
- Focus groups.
- Interviews.
- Results of standardized tests for the specialization that are carried out by the measurement center at the Education Evaluation Authority

D. Student Admission and Support:**1. Student Admission Requirements****A. University admission requirements for a new student:**

- He must have a high school certificate or its equivalent from inside or outside the Kingdom.
- That no more than five years have passed since obtaining a high school certificate or its equivalent, and the University Council may make an exception from this requirement if convincing reasons exist.
- He must be of good conduct.
- To successfully pass any tests or personal interview that the University Council sees fit.
- To be medically fit.
- To obtain the approval of his reference in the study if he is working for any governmental or private entity.
- To fulfill any other conditions determined by the University Council and announced at the time of application.
- He should not be dismissed from another university for disciplinary reasons.
- It is not permissible to accept holders of a bachelor's degree, or its equivalent, to obtain another bachelor's degree, and the university director may make an exception.
- It is not permissible to accept a student registered for another university degree or below, whether in the same university or another.

B. Conditions for admission to the program:

- Prior to entering the Clinical Laboratory program students must complete one year of undergraduate college course work including a total of 29 credit hours at the deanship of common first year (health track) according to the admission requirements approved by the University Council and announced at the time.
- Students must pass all the required courses with a Cumulative GPA 3/5.
- The department board determine the number of seats available each semester (usually around 60 seats (30 male and 30 female students)) according to the capacity of labs and clinical training sites.
- Placement of student is based on the available seats and the student's request and is done through the deanship of admission and registration
- Full-time study as per schedule.
- The applicant must be able in good physical and mental health.

2. Guidance and Orientation Programs for New Students

College instituted orientation for incoming students to ease the transition into college and the program. New student orientation is a way for students to meet other students, become familiar with campus services. This orientation program gives the new students a chance for getting more information about the program, goals, and objectives for their studying. Also, the orientation program reinforces the new students to discuss their concerns with program administrators and graduated students.

The academic advisory committee organizes the event in the 2nd week of the first semester each year. The activities include a brief talk about the program, mission, objectives, regulations and curriculum and a tour on the college facilities (laboratories, computer labs, students service facilities).

[Student Introductory Guide](#)

3. Student Counseling Services

(academic, career, psychological and social)

Office hours and advice:-

- The teacher allocates 6 hours/week as counseling hours for individual student consultations and academic advice.

Academic supervision:-

- Each student has a faculty adviser for academic purposes and registration of courses.
- Encouraging male and female students to meet with his academic advisor every semester before or during the registration week, with the aim of this meeting is to review the student's academic progress. This will be in an individual or group advisory meeting to discuss the study program or any problems that he may face in the study program.
- A follow-up schedule is made between the student and the academic advisor to hold periodic meetings to study the student's academic progress.
- The academic guides and counselors follow up the study schedules for male and female students every semester and make sure that they are strictly committed to their approved study plans.
- Following up the defaulting students who face difficulty in pursuing their study plans, as well as the continuous care of the outstanding and talented students in the program.

Student's Problems Management by Academic counseling :-

- This will be in an individual or group advisory meeting to discuss the study program or any problems that he may face in the study program.

Psychological, career and social support.

- The college has an advisory board committee concerned with specific circumstances of students that may include career, personal, and psychosocial issues.

4. Special Support

(low achievers, disabled, gifted and talented)

low achievers:-

- The department's stone assesses these features of students 'academic achievement and monitors their performance during the year.
- Early in the year, the College Academic Affairs Committee prepares a list of students who are defaulting and whose performance is less than the required level in the department.
- The list is sent to the designated academic advisor who initiates the marking process.
- Academic advisors meet with students and provide instant feedback.
- The department seeks to achieve the internal standard for the previous year as a reference for the average grades of each learning output.
- Recommendations for additional assistance in special cases are submitted to the Dean of the College.

Disabled:-

- There is no Disabled students.

Gifted and talented:-

- Regarding gifted and talented, Academic advisor will hold the responsibility for discover talent and creative students and send their names to academic and students guidance unit for reselection of outstanding students through specific policy. Then, the selected talents students nominated through committee listed for the college administration that is concerned with organizing rewarding and promoting ceremony.

E. Teaching and Administrative Staff

1. Needed Teaching and Administrative Staff

Academic Rank	Specialty		Special Requirements / Skills (if any)	Required Numbers		
	General	Specific		M	F	T
Professors	Clinical laboratory Sciences	- Clinical Chemistry - Clinical Microbiology - Histopathology - Hematology	Teaching experience (at least 4 years)	4	4	8
Associate Professors	Clinical laboratory Sciences	- Clinical Chemistry - Clinical Microbiology - Histopathology - Hematology	Teaching experience (at least 4 years)	2	4	6
Assistant Professors	Clinical laboratory Sciences	- Clinical Chemistry - Clinical Microbiology - Histopathology - Hematology	Teaching experience (at least 4 years)		4	4
Lecturers	Clinical laboratory Sciences	- Clinical Chemistry - Clinical Microbiology - Histopathology - Hematology	Teaching experience (at least 4 years)	7	2	9
Teaching Assistants	Clinical laboratory Sciences	- Clinical Chemistry - Clinical Microbiology - Histopathology - Hematology	According to university rules	2	2	4
Technicians and Laboratory Assistants	Clinical laboratory Sciences	- Clinical Chemistry - Clinical Microbiology - Histopathology - Hematology	Bachelor Degree	4	4	8
Administrative and Supportive Staff	Management	Bachelor Degree	Highly qualified in computer skills, filing, archiving, and handling of the hard files	2	2	4
Others (specify)	IT Technician	BSC Computer Science or Information Technology	Software and Networking Skills plus hardware maintenance skills	1	1	2

2. Professional Development

2.1 Orientation of New Teaching Staff

Describe briefly the process used for orientation of new, visiting and part-time teaching staff

Faculty staff orientation program, including briefing about Program specification, program objectives, learning outcomes, teaching strategies, assessment methods and format, the mechanism used for course and program evaluation, rules, and regulations through workshops and training courses provided by the department, college and Skills Development Center.

Visiting and part-time teaching staff:- Nil

2.2 Professional Development for Teaching Staff

Describe briefly the plan and arrangements for academic and professional development of teaching staff (e.g., teaching & learning strategies, learning outcomes assessment, professional development, etc.)

Improvement of skills in teaching and student assessment:-

- Determine needs of Faculty members by using faculty member's survey, student course evaluation survey, review course specification, and report.
- Plan for workshops about teaching and student assessment methods and strategies according to their needs.

Other professional development including knowledge of research:-

- Include research participation in faculty member evaluation.
- Workshops offered by Deanship of Quality and Development about research funds and publications.
- Research partnership with other colleges, institutions, or research centers.

F. Learning Resources, Facilities, and Equipment

1. Learning Resources.

Mechanism for providing and quality assurance of learning resources (textbooks, references and other resource materials, including electronic and web-based resources, etc.)

Based on annual courses review and recommendations. The department chair prepares a list of educational resources, which will be submitted to the Library Committee. That includes the required textbooks, electronic resources, audiovisual materials and laboratory supply and equipment.

The processes followed by faculty and teaching staff for planning and acquisition resources for library, laboratories and classrooms are as follow:

1. At the end of each semester, the faculty staff submits the course report to the department chair that may suggest the need for additional educational resources.
2. Annual inventory report is generated to count the available textbooks and number of copies in the department and main library.
3. Laboratory supervisors prepare an inventory report to count and determine status of available supplies, equipment and consumables in laboratories.
4. The academic affairs committee prepares a list of expected number of student for each course is prepared to estimate the quantity of needed resources.
5. Library committee or laboratory committee will discuss and report needed resources to the department chair, who will discuss the requirements at the college council level, and follows it up with the university officials following the method of supply requisition.

2. Facilities and Equipment

(Library, laboratories, medical facilities, classrooms, etc.).

Library:-

It depends on the central library of the university. There is no special library for the department.

Classrooms:-

There are twelve classrooms with numbers (301 to 311), with a capacity of 15 to 50 seats, equipped with an internet network, an overhead projector, a smart board, a traditional blackboard, and a display table.

Medical facilities:-

Laboratory supervisors prepare an inventory report to count and determine status of available supplies, equipment and consumables in laboratories.

Laboratories:-

- Each laboratory contains a preparation room, the warehouse where all the materials needed for the laboratory are kept, as well as flammable materials, and advanced devices and machines according to the nature of the work in the laboratory. There are also emergency exits and a fire-extinguishing system. There is also a company specialized in dealing with hazardous chemical and biological waste in the department.
- The department has thirteen laboratories equipped with an internet network, an overhead projector, a smart board, a traditional blackboard and a display table. According to the attached table:

Main Section:

No.	Lab	Lab No.	Capacity
1.	Central Research Laboratory (1)	G259	Lab capacity ranges from 15 to 25 seats
2.	Biochemistry	G290	
3.	Basics of microbiology	G227	
4.	Parasitology and Epidemiology	G212	
5.	Bacteriology	G277	
6.	Virology	G271	
7.	Pathology	F163	
8.	Hematology	G287	
9.	Histology technique	G235	
10.	Electron microscope	G208	
11.	Central Lab (2)	G268	
12.	Mycology	G270	
13.	Anatomy lab	G160	

Female Section:

No.	Lab	Lab No.	Capacity
1.	Hematology	106B	Lab capacity ranges from 15 to 20 seats
2.	Pathology	107B	
3.	Microbiology	109B	

3. Arrangements to Maintain a Healthy and Safe Environment (According to the nature of the program)

In conjunction with the University Safety Office, the program develops and implements specific occupational safety and health working practice especially in labs and clinical training sites, for this, there is a lab safety manual, and orientation for the students who attend the clinical sites like our labs and hospital about the safety policies in the clinical sites, also they have an orientation for some vaccination program before attending in hospitals.

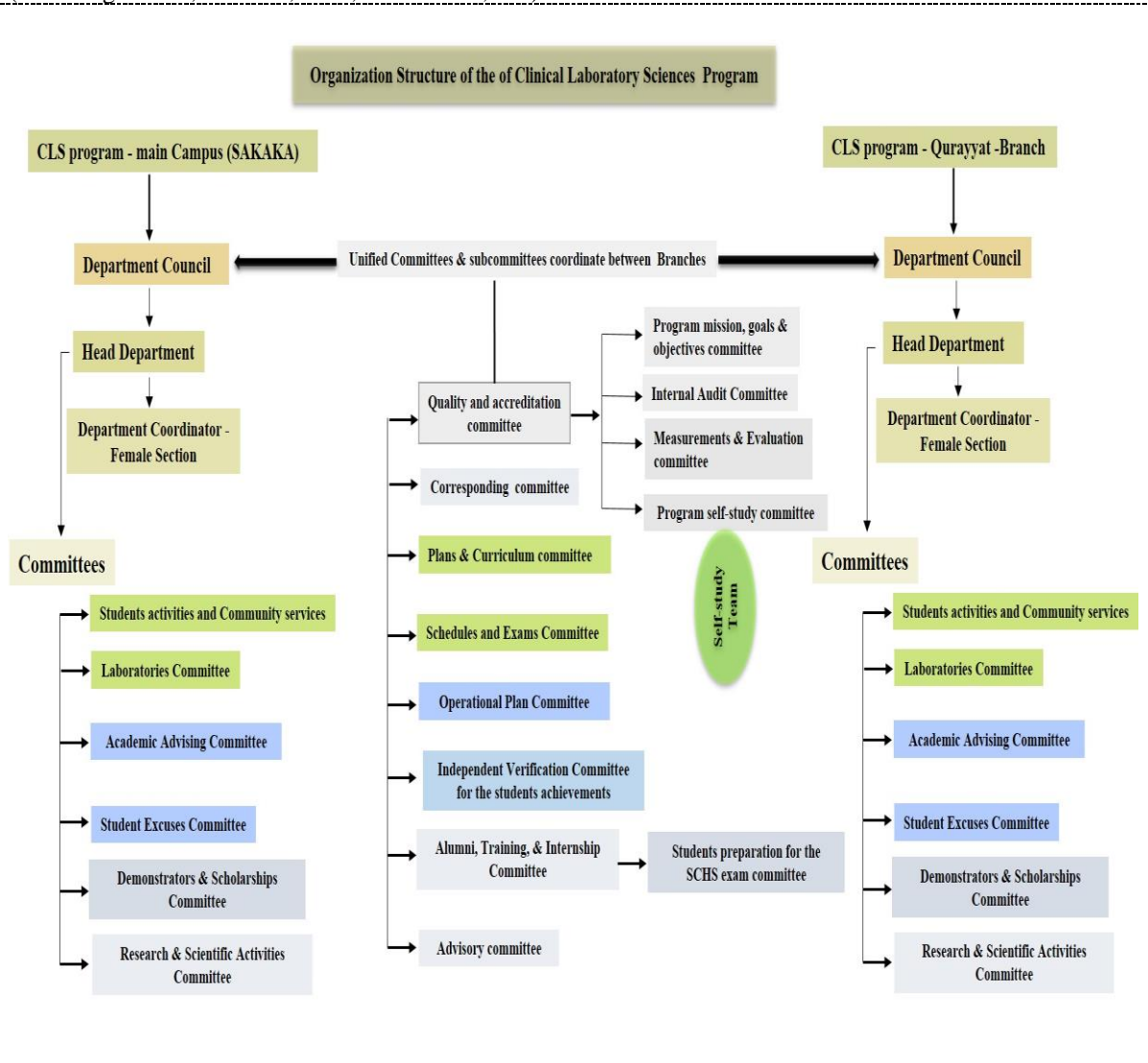
[Safety manual of Clinical Laboratory Sciences](#)

G. Program Management and Regulations

1. Program Management

1.1 Program Structure

(Including boards, councils, units, committees, etc.)



1.2 Stakeholders Involvement

Describe the representation and involvement of stakeholders in the program planning and development. (Students, professional bodies, scientific societies, alumni, employers, etc.)

- The mission, vision, goals, and objectives of the program were designed in discussion with students, professional bodies, scientific societies, alumni, employers.
- Also, at end of each year, there is an employer and stakeholder survey about the program graduated students, to get feedback about program ILOs, the effectiveness of teaching strategies, and assessment methods.
- Following up the number of graduates submitted for the Saudi Commission for Health Specialties exam, knowing the result through the site.

2. Program Regulations

Provide a list of related program regulations, including their link to online version: admission, study and exams, recruitment, appeals and complaint regulations, etc.)

The Bachelor of Clinical Laboratory Sciences Program is 136 Credit hours consisting of 8 Levels / Semesters followed by 48 weeks of Internship field training program (refer to the Curriculum Study Plan Table above). Students are expected to finish the 136 credit hours of the program within 8 semesters (4 years) when following the level credit hours load as suggested in the study plan. The following credit hours load apply to regular students.

Minimum credit hours load per semester: 14

Maximum credit hours load per semester: 18

Maximum credit hours load in final semester: 18

Maximum 136 credit hours Program Duration: 8 Semesters

Internship Program: 48 Weeks

A. Attendance:

All courses described in Curriculum Study Plan Table are required with attendance level of no less than 75% in both theoretical and clinical parts of the courses.

B. Graduation Requirements:

Successful Completion of the required 136 credit hours for the new plan according to the university and college regulations.

H. Program Quality Assurance

1. Program Quality Assurance System

Provide online link to [Program quality system manual](#)

Program Quality Assurance System include:-

1. Program Specification :-
Program specification main objective is to provide platform for the planning, monitoring and improvement of the program by faculty members responsible for its delivery. It contains sufficient information to demonstrate that the program will meet the requirements of the Standards for Quality Assurance and Accreditation of Higher Education Programs, the SAQF, and specific requirements for the Clinical Laboratory Sciences professional accreditation. (<https://www.ju.edu.sa/en/administrations/deanships/deanship-of-quality-academic-accreditation/from/>)
2. Course Specification: -
The course specification is prepared after approval of program specification and before a course delivery on the first time. Nevertheless, it can be subjected to modification according to the major or minor comments provided by internal and external auditors. The purpose of course specification is to make clear roadmap for the course as part of the package of arrangements courses to achieve the intended learning outcomes of the program. Course specification includes the course identification and general information, objectives, description, and topics to be deliver to the students. It also contains learning domains, and intended learning outcomes (ILOs) matching with that of the programs and are keeping with the National Qualifications Framework (NQF). Furthermore, course specification includes teaching strategies and the methods of assessment of the students for each ILOs. Course specifications for these courses are prepared in consultation with the course coordinators and the program coordinator ([NCAAA Template](#)).
3. Course Teaching Plan: -
The Vice Rectorate for Educational Affairs at Jouf University requires the preparation of a course teaching, which will be uploaded along with course specification, and learning outcomes measurement plan to students at beginning of each semester through blackboard. The course plan will be prepare (T5) form ([Course teaching plan template](#)).
4. Course Report: -
course coordinator will prepare report for its own division and gather reports from instructors to make a combined course report for all divisions. The course report include summary course

general information of the course, analysis of students grades achievements and students of evaluation of the course. It also includes average of ILOS achieved by students compared with program ILOS target benchmark. Improvement plans are determined according ILOS score.

5. Annual report of the program:-
The annual report of the program is prepared after the completion of the first and the second semester of the academic year, in which the progress of the graduated class within four years is shown and the number of graduates of male and female determined, and the percentage of employment for graduates in the government and private sectors are also presented ([guidelines of Jouf University quality and academic accreditation deanship](#)).
6. Field experience specification and reports:
Field experiences specification include ILOS required for the field of clinical laboratory sciences. Field experiences ILOS is transformation of knowledge covered in advance levels into practical skills. Filed experience prepared according to the template (T8) ([Course teaching plan template](#)).
7. Key Performance Indicators (KPIs) .
Key Performance Indicators (KPIs) are the key indicators of progress toward an intended result. KPIs provide a focus for strategic and operational improvement, create an analytical basis for decision-making, and focus on what matters most.
8. Program's Self-study:
A program self-study is a thorough examination of the quality of a program. The mission and objectives of the program and the extent to which they are to be being achieved thoroughly analyzed according to the standards for quality assurance and accreditation defined by the NCAAA.
9. Internal audits of the above requirements are performed by academics in clinical laboratories.

2. Program Quality Monitoring Procedures

1. There is a unified advisory committee between Sakaka and Qurayyat
2. Questionnaires for the beneficiaries about the vision, mission, goals, objectives and specifications of the program's graduate
3. Questionnaires from students about completing the "Program Evaluation" program.
4. Questionnaires from students about the "student experience."
5. Inquiry about students' responses about the strength and weakness of the educational process.
6. A survey of the graduates of the program, in a standardized form, to be distributed six months after graduation
7. Focus group discussion with randomly selected groups of graduates.
8. Students' general evaluation of the courses.
9. Comprehensive exit test for students expected to graduate (Learning Outcomes Assessment Test).
10. External review
11. There is an internal audit for every quality process in the department

These surveys are conducted electronically via student portals under the supervision of the Statistics Committee of the College of Applied Medical Sciences. These surveys aim to assess the evaluation and experience of current students and alumni on the program. The committee prepares reports to the head of the department, the vice president for academic affairs, and the dean of the college

3. Arrangements to Monitor Quality of Courses Taught by other Departments.

Follow the course specification and course report to discuss the strengths and weakness points, also follow the academic achievement of students and reviewing the student evaluation for the course.

4. Arrangements Used to Ensure the Consistency between Main Campus and Branches (including male and female sections)

- A. Coordination between male and female sections of the university is done by:
 1. Head department and deferent department Committee

B. Coordination between branches of the university is done by: -

1. Unified Advisory Committee.
2. Unified Quality Committee.

These committees follow up the program specifications, course specifications, field experience, faculty, facilities and equipment, training, financial aspects, technicians, program plans between branches.

5. Arrangements to Apply the Institutional Regulations Governing the Educational and Research Partnerships (if any).

NA

6. Assessment Plan for Program Learning Outcomes (PLOs), and Mechanisms of Using its Results in the Development Processes

- Direct assessment:-
 - Result of Methods strategies in the end of each course (Mention above).
 - Comprehensive exit exam for expected graduating students.
- Indirect assessment: by questionnaire as flowing:
 1. Survey responses from the students about completeness of the program "Program Evaluation".
 2. Survey responses from the students about their experience "Student Experience"
 3. Survey responses from student about strength and weakness of the education process.
 4. Survey of graduates from the program using a standard form distributed six months after graduation
 5. Focus group discussion with randomly selected groups of graduates.
 6. Overall students' evaluation of courses.

NQF Learning Domains and Learning Outcomes	When to Assess	Direct Asses		Indirect Asses.				PLO Average	Evidence Collect by:	Evidence Asses. by:	Improvement
		Faculty PLOs Asses.	Senior Exit Asses.	Senior Exit Survey	Alumni Survey	Employer Survey	Field training supervisors				
1.0 Knowledge											
1.1	End of semester								*	**	**
1.2	End of semester								*	**	**
1.3	End of semester								*	**	**
1.4	End of semester								*	**	**
Average											
2.0 Skills											
2.1	End of semester								*	**	**
2.2	End of semester								*	**	**
2.3	End of semester								*	**	**
2.4	End of semester								*	**	**
Average											
3.0 Values:											
3.1	End of semester								*	**	**
3.2	End of semester								*	**	**
3.3	End of semester								*	**	**
Average											

* Evaluation and Measurement Committee.

** Independent Verification Committee.

*** Independent Verification Committee (Action plan)

7. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Effectiveness of teaching & assessment Quality of learning resources	Students	Indirect (questionnaire)	At the end of each semester
Quality of the program learning outcome: Extent of achievement of program learning outcomes	Faculty	Direct (ILOs Measurement)	At end of each semester
Evaluation of students: Revision of final exam papers	Other (Auditing Committee of Department)	Indirect (Report)	At the end of each semester
Effectiveness of teaching & assessment: Student evaluation of the quality of learning experience in the program	Students	Indirect (questionnaire)	At the end of academic year
Evaluation of student experience: Exit Exam	Faculty	Direct	At the end of academic year

Evaluation Areas/Aspects (e.g., leadership, effectiveness of teaching & assessment, learning resources, partnerships, etc.)

Evaluation Sources (students, graduates, alumni, faculty, program leaders, administrative staff, employers, independent reviewers, and others (specify))

Evaluation Methods (e.g., Surveys, interviews, visits, etc.)

Evaluation Time (e.g., beginning of semesters, end of academic year, etc.)

8. Program KPIs*

The period to achieve the target (41-42) year.

No	KPIs Code	KPIs	Target	Measurement Methods (by using Program KPIs guide)	Measurement Time	
1	KPI-P-01	Percentage of achieved indicators of the program operational plan objectives.	75%	Percentage of achieved indicators of the goals of the program's operational plan.	Annually	
2	KPI-P-02	Students' Evaluation of quality of learning experience in the program.	5	Applying a questionnaire to evaluate the final year students for the quality of learning experiences in the program on a scale five levels in an annual survey.	Annually	
3	KPI-P-03	Students' evaluation of the quality of the courses.	4.5	Implementing a questionnaire for students' assessment of the quality of courses on a five-level scale in a survey annual.	Annually	
4	KPI-P-04	Completion rate.	100%	The percentage of the number of undergraduate students who completed the program during the prescribed period of the program from each batch.	Annually	
5	KPI-P-05	First-year students retention rate	100%	The percentage of the number of first year students in the program who continue in the program for the following year.	Annually	
6	KPI-P-06	Students' performance in the professional and/or national examinations.	NA			
7	KPI-P-07	Graduates' employability and enrolment in postgraduate programs.	80%	The percentage of the number of graduates of the program who were employed during the first year of their graduation.	Annually	
			10%	The percentage of the number of graduates who enrolled in graduate programs during the first year of their graduation.	Annually	
8	KPI-P-08	Average number of students in the class.	20	The rate of the number of students in the class in each meeting / teaching activity, small group lecture, discussion sessions, practical or clinical lessons.	Annually	
9	KPI-P-09	Employers' evaluation of the program graduates proficiency	4.4	Implementing a questionnaire to evaluate employment agencies for the efficiency of program graduates on a scale of five Levels in an annual survey.	Annually	
10	KPI-P-10	Students' satisfaction with the offered services	3.8	Application of a questionnaire to measure student satisfaction with the various services provided by the program (restaurants, transportation, sports facilities, restaurants, and academic advising) on a five-level scale in an annual survey.	Annually	
11	KPI-P-11	Ratio of students to teaching staff.	11.2:1	The ratio of students to the faculty in the program.	Annually	
12	KPI-P-12	Percentage of teaching staff distribution.	Professor	10%	Percentage distribution of faculty categories in terms of (gender: - male students - female students / branch / scientific level).	Annually
			Associate Prof.	20%		
			Assistant Prof.	55%		
			Lecturer	15%		
13		Proportion of teaching staff	2%	The percentage of faculty members who	Annually	

No	KPIs Code	KPIs	Target	Measurement Methods (by using Program KPIs guide)	Measurement Time
	KPI-P-13	leaving the program		leave the program annually for reasons other than reaching the retirement age.	
14	KPI-P-14	Percentage of publications of faculty members.	75%	The percentage of full-time faculty members who published at least one research during the year.	Annually
15	KPI-P-15	Rate of published research per faculty member.	3:1	The total ratio number of refereed and / or published research papers during the year for the program.	Annually
16	KPI-P-16	Citations rate in refereed journals per faculty member.	25:1	The total average number of citation in peer-reviewed journals from published scientific research for full-time faculty members or their equivalent in the program	Annually
17	KPI-P-17	Satisfaction of beneficiaries with the learning resources.	3.0	Application of a questionnaire to measure the satisfaction of the beneficiaries of the program (members of the faculty and students) of Learning sources in terms of their adequacy and diversity (references, periodicals, databases,Etc. - support services provided for use) on a scale of five levels in an annual survey.	Annually
18	KPI-C-18	Academic, psychological and career counseling services.	4.5	Application of a questionnaire measuring the satisfaction of university students with the quality of academic, psychological and professional counseling services	Annually
19	KPI-C-19	Satisfaction survey of undergraduate students with laboratory and laboratory equipment.	4.5	Application of a questionnaire to assess the satisfaction of undergraduate students with laboratory equipment and laboratories.	Annually
20	KPI-C-20	The Ratio of scientific research based on the community and program educational needs (Staff member and student graduate level)	10:1 3:1	Ratio of scientific research based on the community and program educational needs (Staff member and student graduate level)	Annually
21	KPI-C-21	The ratio of activities provided to serve the community by faculty members and students such as (preparing educational lectures - a health day - voluntary work)	8:1	Percentage of activities provided to community service by faculty members and students	Annually

* including KPIs required by NCAAA

I. Specification Approval Data

Council / Committee	Departmental Council
Reference No.	7
Date	3\3\2021