



## Program Specification

**Program Name: Bachelor's in Clinical Laboratory Sciences**

**Qualification Level: Bachelor Degree (Level 7)**

**Department: Clinical Laboratory Sciences**

**College: Applied Medical Sciences**

**Institution: Taif University**



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## A. Program Identification and General Information

### 1. Program Main Location:

College of Applied Medical Sciences, King Abdulaziz Specialist Hospital Complex, Taif.

### 2. Branches Offering the Program:

There are no branches of the main campus so far.

\* However, there is anticipation of future merging of the main campus Clinical Laboratory Sciences Program with Turabah branch, most probably from next year 2019-2020.

### 3. Reasons for Establishing the Program:

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

With healthcare services being one of the fastest growing industries in the Kingdom of Saudi Arabia, there is a dire need for safer and cost effective health services. This mandates preparing distinct clinical laboratory specialists having the required knowledge and skills, that will allow them to:

- Conduct up-to-date clinical laboratory practice.
- Interpret generated laboratory results and understand their relationship to the diagnosis of diseases.
- Emphasize high principles of character, a sense of civic and moral responsibility, and a commitment to basic values of human life and community.
- Endorse partnerships with other health professionals to promote health and well-being of the society.

Furthermore, in accordance with the Kingdom's Vision 2030 and National Transformation Program 2020, there is a need to create a job market having its own nationals who can serve as competent laboratory professionals in the following areas:

- Public hospitals.
- Private hospitals.
- Military hospitals.
- Primary health care centers and clinics.
- Research and development laboratories.
- Commercial laboratories.

### 4. Total Credit Hours for Completing the Program: (160 credit hours)

The program is taught over a span of five years constituting eight semesters in the first four years and two semesters during internship, with a total of 160 credit hours. This includes first year (21 hours), university requirement subjects (22 hours) and internship (31 hours) besides program requirements (86 hours).

Details are given in the study plan on pages 22 and 23.

**5. Learning Hours: (5957 hours)**

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

The learning hours (5957 hours) includes all subjects; beginning from first year until clinical rotation. However, these do not include subjects required as part of university requirements (Please see table of curriculum structure inserted below for more details).

**Hyperlink**

- [Total Learning Hours](#)



**6. Professional Occupations/Jobs:**

- Licensed medical laboratory technologists
- Universities and other teaching institutions
- Industry (Research and Development)
- Biotechnology companies
- Forensic departments
- Molecular genetics laboratories

**7. Major Tracks/Pathways (if any):**

Major track/pathway	Credit hours (For each track)	Professional Occupations/Jobs (For each track)
None	Not applicable	Not applicable

**8. Intermediate Exit Points/Awarded Degree (if any):**

Intermediate exit points/awarded degree	Credit hours
None	Not applicable

**B. Mission, Goals, and Learning Outcomes**

**1. Program Mission:**

“To prepare competent laboratory specialists contributing in health services and scientific research for the purpose of community development”.

**2. Program Goals:**

To graduate competent clinical laboratory specialists who possess,

- 1- Knowledge and skills commensurate with their profession.
- 2- Capability of contributing to clinical laboratory research.
- 3- Commitment to ethical, humane and cultural values of patient care.
- 4- Ability to empower the community through continuous awareness and healthcare services.

The mission and goals of the program of Clinical Laboratory Sciences is consistent with that of Taif University to achieve its international recognition through effective educational and research activities. The program will eventually benefit the community, and produce academically- and scientifically- competent graduates ensuring sustainable development of the society. There is an alignment between the mission and goals of the program of Clinical Laboratory Sciences with that of institutional mission and goals as well as that for the college.

### Alignment of Program Mission with University Mission

University Mission Components		Taif University Mission		
		EDUCATION	RESEARCH	COMMUNITY SERVICE
Program Mission Components	EDUCATION	√		√
	RESEARCH		√	
	COMMUNITY SERVICE			√

#### Program Mission:

To prepare competent laboratory specialists contributing in health services, industrial sector, and scientific research.

#### Taif University Mission:

To develop nationally competitive competencies that contribute to the production of knowledge and its transformation into an engine for development.

### Alignment of Program Mission with College Mission

College Mission Components		Applied Medical Sciences College Mission		
		(EDUCATION)	(RESEARCH)	(COMMUNITY SERVICE)
Program Mission Components	EDUCATION	√		√
	RESEARCH		√	
	COMMUNITY SERVICE			√

### College of Applied Medical Sciences Mission:

To develop nationally competitive competencies in health sciences that contribute to scientific research for community development.

### Alignment of Program Goals with TU Strategic Objectives

	TU Strategic Objective 1	TU Strategic Objective 2	TU Strategic Objective 3
Program Goal 1	√		
Program Goal 2		√	
Program Goal 3			√
Program Goal 4		√	√

### Program Goals:

To graduate competent clinical laboratory specialists who possess,

- 1- Knowledge and skills commensurate with their profession.
- 2- Capability of contributing to clinical laboratory research.
- 3- Commitment to ethical, humane and cultural values of patient care.
- 4- Ability to empower the community through continuous awareness and healthcare services.

**Taif University Strategic objectives:**

- 1- Improving the quality and outcomes of education.
- 2- Effective participation of scientific research in community development.
- 3- Effective participation in the provision and development of community services.
- 4- Raising the efficiency of the administrative system.
- 5- Raising the efficiency of human resources and infrastructure.
- 6- Raising financial efficiency and development of self-resources.

**Hyperlink**

- [Alignment between College and Program mission](#)
- [Alignment between University and Program mission](#)



#### 4. Graduate Attributes:

##### Characteristics of Clinical Laboratory Sciences graduates:

- A. Apply “**knowledge, critical thinking and problem solving skills**” in laboratory practice.
- B. Employ “**effective communication skills**” in dealing with individuals and health care providers.
- C. Demonstrate “**professionalism**” in the workplace in accordance with laboratory code of ethics.
- D. Possess “**leadership and management skills**” across different responsibilities in laboratory practice.

##### Program Learning Outcomes:

1. State cellular and molecular mechanisms underlying normal and abnormal physiological processes in human.
2. Identify principles applied for basic/special clinical laboratory settings including testing, instrumentation and analysis.
3. Explain pre-analytical, analytical and post-analytical components of clinical laboratory practice.
4. Interpret laboratory data and correlate it with clinical manifestation of diseases.
5. Evaluate quality assurance measures in clinical laboratory through proper procedures.
6. Practice basic clinical laboratory research and data analysis.
7. Perform steps in the practice of laboratory testing procedures in a safe and effective manner.
8. Demonstrate positive work ethics as well as professional and patient-centred attitude in health care setting.
9. Employ effective communication and excellent management skills for optimum utilization of time and resources.
10. Use problem solving and leadership skills in laboratory practice.



## Alignment of Program Graduate Attributes and Program Learning Outcomes

Align Program Graduate Attributes with Program Learning Outcomes										
Program Graduate Attributes	Program Learning Outcomes									
	K1	K2	S1	S2	S3	S4	C1	C2	C3	C4
A. Apply “ <b>knowledge, critical thinking and problem solving skills</b> ” in laboratory practice.	√	√	√	√	√	√				√
B. Employ “ <b>effective communication skills</b> ” in dealing with individuals and health care providers.									√	√
C. Demonstrate “ <b>professionalism</b> ” in the workplace in accordance with laboratory code of ethics.					√		√	√	√	
D. Possess “ <b>leadership and management skills</b> ” across different responsibilities in laboratory practice.					√	√			√	√

## Alignment of Program Graduate Attributes and Taif University Attributes.

Align University Graduate Attributes with Program Graduate Attributes		
Taif University Graduate Attributes		Program Graduate Attributes
<b>1. Learning and innovation Skills.</b>	<b>1.1</b> Creativity and innovation.	<b>NA</b>
	<b>1.2</b> Critical Thinking and Problem Solving.	<b>A</b>
	<b>1.3</b> Collaboration and Communication Skills.	<b>B</b>
<b>2. Information Technology, Media and Technical Skills.</b>	<b>2.1</b> Information Technology Proficiency Skills.	<b>D</b>
	<b>2.2</b> Efficiency and Media Coverage Skills.	<b>NA</b>
	<b>2.3</b> Information and Communication Skills.	<b>B</b>
<b>3. Life and Professional Skills.</b>	<b>3.1</b> Flexibility and Adaptation Skills.	<b>D</b>
	<b>3.2</b> Initiative and Self-direction Skills.	<b>C, D</b>
	<b>3.3</b> Social Skills and Multicultural Skills.	<b>NA</b>
	<b>3.4</b> Skills of Productivity and Accountability.	<b>C</b>
	<b>3.5</b> Leadership and Responsibility Skills.	<b>C, D</b>

### Hyperlink

- [Program Graduate Attributes](#)



5. Program learning Outcomes*	
<b>Knowledge</b>	
K1	State cellular and molecular mechanisms underlying normal and abnormal physiological processes in human.
K2	Identify principles applied for basic/special clinical laboratory settings including testing, instrumentation and analysis.
<b>Skills</b>	
S1	Explain pre-analytical, analytical and post-analytical components of clinical laboratory practice.
S2	Interpret laboratory data and correlate it with clinical manifestation of diseases.
S3	Evaluate quality assurance measures in clinical laboratory through proper procedures.
S4	Practice basic clinical laboratory research and data analysis.
<b>Core Competencies</b>	
C1	Perform steps in the practice of laboratory testing procedures in a safe and effective manner.
C2	Demonstrate positive work ethics as well as professional and patient-centred attitude in health care setting.
C3	Employ effective communication and excellent management skills for optimum utilization of time and resources.
C4	Use problem solving and leadership skills in laboratory practice.

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

## C. Curriculum

### 1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	11	22	13.7%
	Elective	None	N/A	---
College Requirements	Required	06	21	13%
	Elective	None	N/A	---
Program Requirements	Required	30	78	49%
	Elective	None	N/A	---
Capstone Course/Project	Required	1	8	5%
Field Experience/ Internship	Required	12	31	19.3%
Others	None	None	None	None
<b>Total</b>		<b>60</b>	<b>160</b>	<b>100%</b>

## 2. Program Study Plan

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College or Department)
<b>First Year: Levels 1 and 2</b>						
Level 1	370111-4	Medical Biology (1)	Required	None	4 (T3+P1)	College
	370112-3	Medical Chemistry (1)		None	3 (T2+P1)	College
	370113-3	Basic Medical Statistics		None	3	College
	990311-2	University Study Skills		None	2	Institutional
	990211-2	Arabic Language Skills		None	2	Institutional
	999805-2	Intensive English 1		None	2	Institutional
Level 2	370211-4	Medical Biology (2)	Required	Medical Biology (1)	4 (T3+P1)	College
	370212-4	Medical Chemistry (2)		Medical Chemistry (1)	4 (T3+P1)	College
	370213-3	Medical Physics		None	3 (T2+P1)	College
	2004111-2	Fundamentals of Islamic Culture		None	2	Institutional
	999806-2	Intensive English 2		Intensive English 1	2	Institutional
	999807-2	ESP1 (Medical Terminology)		None	2	Institutional
<b>Second Year: Levels 3 and 4</b>						
Level 3	373216-3	Medical Genetics	Required	None	3	Department
	373218-2	Professional and Communication skills		None	2	Department
	373219-3	Principle of Anatomy and Histology		Medical Biology (2)	3 (T2+P1)	Department
	373220-2	Human Physiology		Medical Biology (2)	2	Department
	373225-3	Laboratory Skills		None	3 (T2+P1)	Department
	2004112-2	Islamic Culture (Morals and Values)		None	2	Institutional
Level 4	373239-3	Basic of Immunology	Required	None	3 (T2+P1)	Department
	373226-3	Medical Biochemistry		Medical Chemistry (2)	3 (T2+P1)	Department
	373228-3	Basic of Medical Microbiology		None	3 (T2+P1)	Department
	373229-2	Medical Laboratory Instrumentation		None	2 (T2+P1)	Department
	373238-2	General and Systemic pathology		Principle of Anatomy and Histology	2	Department
	105115-2	History and Civilization		None	2	Institutional
<b>Third Year: Levels 5 and 6</b>						
Level 5	373310-3	Clinical Biochemistry 1	Required	Medical Biochemistry	3 (T2+P1)	Department
	373311-2	Clinical Immunology		Basic of Immunology	2	Department
	373312-3	Histopathological Techniques		General and Systemic pathology	3 (T2+P1)	Department
	373313-3	Haematology 1		Human Physiology	3 (T2+P1)	Department
	373314-3	Diagnostic Molecular Biology		Medical Genetics	3 (T2+P1)	Department
	999809-2	Elective English 1		None	2	Institutional

Level 6	373320-3	Clinical Biochemistry 2	Required	Clinical Biochemistry 1	3 (T2+P1)	Department
	373321-3	Diagnostic Parasitology		Basic of Medical Microbiology	3 (T2+P1)	Department
	373322-3	Clinical Bacteriology		Basic of Medical Microbiology	3 (T2+P1)	Department
	373324-2	Toxicology		None	2 (T1+P1)	Department
	373323-3	Haematology 2		Haematology 1	3 (T2+P1)	Department
	373326-2	Cytopathology		Histopathological Techniques	2 (T1+P1)	Department
	2004313-2	Islamic Culture 3		None	2	Institutional
<b>Forth Year: Levels 7 and 8</b>						
Level 7	373410-3	Clinical Virology and Mycology	Required	Basic of Medical Microbiology	3 (T2+P1)	Department
	373411-2	Coagulation and Haemostasis		Haematology 2	2 (T1+P1)	Department
	373412-3	Clinical Practice		- Clinical Biochemistry 1 - Clinical Bacteriology - Haematology 2 - Cytopathology	3 (Practical)	Department
	373413-3	Transfusion and transplantation sciences		Clinical Immunology	3 (T2+P1)	Department
	373414-2	Research in health science		None	2	Department
	373415-2	Assisted Reproductive Techniques		None	2 (T1+P1)	Department
	2004414-2	Islamic Culture 4		None	2	Institutional
Level 8	373420-3	Integrated Laboratory Sciences	Required	None	3	Department
	373421-2	Infection control in Hospital		- Clinical Bacteriology - Clinical Virology and Mycology	2	Department
	373422-8	Student's Project		Clinical Practice	8	Department
	373423-2	Laboratory Management and Quality Control		None	2	Department
<b>Fifth Year: Levels 9 and 10</b>						
Level 9	373511-2	Phlebotomy and Reception	Required	None	2	Department
	373512-3	Microbiology		None	3	Department
	373513-2	Parasitology		None	2	Department
	373514-3	Serology and Immunology		None	3	Department
	373515-3	Clinical Biochemistry		None	3	Department
	373516-2	Hormones		None	2	Department
Level 10	373521-2	Molecular Diagnostics (PCR)	Required	None	2	Department
	373522-2	Drugs & Toxicology		None	2	Department
	373523-3	Hematology		None	3	Department
	373524-3	Blood Bank		None	3	Department
	373525-3	Histopathology & Cytology		None	3	Department
	373526-3	Quality Control		None	3	Department

\* Include additional levels if needed

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

\*\*\* T represents Theory and P represents Practical sessions.

### 3. Course Specifications

Insert hyperlink for all course specifications using NCAAAA template

<a href="#">Course Specifications</a>
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### 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 = Mastered**)

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

Course Name and Code	Program Learning Outcomes									
	Knowledge		Skills				Competence			
	K.1	K.2	S.1	S.2	S.3	S4	C.1	C.2	C.3	C.4
<b>First Year: Levels 1 and 2</b>										
Medical Biology (1) <b>370111-4</b>	<b>I</b>		<b>I</b>							
Medical Chemistry (1) <b>370112-3</b>	<b>I</b>	<b>I</b>								
Basic Medical Statistics <b>370113-3</b>	<b>I</b>					<b>I</b>				
Medical Biology (2) <b>370211-4</b>	<b>I</b>		<b>I</b>							
Medical Chemistry (2) <b>370212-4</b>	<b>I</b>	<b>I</b>		<b>I</b>						
Medical Physics <b>370213-3</b>	<b>I</b>	<b>I</b>								
<b>Second Year: Levels 3 and 4</b>										
Medical Genetics <b>373216-3</b>	<b>I</b>	<b>I</b>		<b>I</b>					<b>I</b>	
Professional and Communication Skills <b>373218-2</b>								<b>I</b>	<b>I</b>	<b>I</b>
Principles of Anatomy and Histology <b>373219-3</b>	<b>I</b>			<b>I</b>					<b>I</b>	
Human Physiology <b>373220-2</b>	<b>I</b>			<b>I</b>					<b>I</b>	
Laboratory Skills <b>373225-3</b>		<b>I</b>			<b>I</b>	<b>I</b>	<b>I</b>			
Basic of Immunology <b>373239-3</b>	<b>I</b>	<b>I</b>	<b>I</b>	<b>I</b>			<b>I</b>			
Medical Biochemistry <b>373226-3</b>	<b>I</b>	<b>I</b>		<b>I</b>			<b>I</b>		<b>I</b>	
Basic of Medical Microbiology <b>373228-3</b>	<b>I</b>	<b>I</b>	<b>I</b>				<b>I</b>			
Medical Laboratory Instrumentation <b>373229-2</b>		<b>I</b>			<b>I</b>	<b>I</b>				
General and Systemic Pathology <b>373238-2</b>	<b>I</b>			<b>I</b>					<b>I</b>	

Course Name and Code	Program Learning Outcomes									
	Knowledge		Skills				Competence			
	K.1	K.2	S.1	S.2	S.3	S4	C.1	C.2	C.3	C.4
<b>Third Year: Levels 5 and 6</b>										
Clinical Biochemistry 1 373310-3	P	P		P	P		P		P	
Clinical Immunology 373311-2	P	P		P						
Histopathological Techniques 373312-3		P	P	P	P		P			
Hematology 1 373313-3	P	P	P	P	I		P		P	
Diagnostic Molecular Biology 373314-3	P		P	P	P	I	P		P	
Clinical Biochemistry 2 373320-3	P	P		P		I			P	
Diagnostic Parasitology 373321-3	P	P	P	P			P			
Clinical Bacteriology 373322-3	P	P	P	P	I		P			
Toxicology 373324-2	P	P	P	P						P
Haematology 2 373323-3	P	P	P	P	P		P		P	
Cytopathology 373326-2	P	P	P	P	P				P	
<b>Fourth Year: Levels 7 and 8</b>										
Clinical Virology and Mycology 373410-3	P	P	P	P			P			
Coagulation and Haemostasis 373411-2	P	P	P	P			P		P	
Clinical Practice 373412-3		P	P	P			P	P	P	
Transfusion and Transplantation Sciences 373413-3		P		P	P		P	P	P	
Research in Health Sciences 373414-2						P			P	P
Assisted Reproductive Techniques 373415-2	P	P		P				P	P	
Integrated Laboratory Sciences 373420-3		P		P		P			P	P
Infection Control in Hospitals 373421-2	P							P	P	
Student's Project 373422-8		M				M	M		M	M

Course Name and Code	Program Learning Outcomes									
	Knowledge		Skills				Competence			
	K.1	K.2	S.1	S.2	S.3	S4	C.1	C.2	C.3	C.4
Laboratory Management and Quality Control 373423-2			M		M			M	M	M
<b>Fifth Year: Levels 9 and 10</b>										
Phlebotomy and Reception 373511-2			M				M	M	M	
Microbiology 373512-3			M	M		M	M	M		
Parasitology 373513-2			M	M		M	M	M	M	
Serology and Immunology 373514-3			M	M	M	M	M		M	
Clinical Biochemistry 373515-3				M	M		M			M
Hormones 373516-2			M	M	M		M			
Molecular Diagnostics 373521-2				M	M		M			M
Drugs and Toxicology 373522-2			M	M			M			
Haematology 373523-3				M	M		M			
Blood Bank 373524-3				M	M		M	M	M	
Histopathology and Cytology 373525-3			M	M			M	M	M	
Quality Control 373526-3			M		M		M			

### 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.

**The students joining the program are oriented with the rules, regulations and policies of the program, college and the university including the mission, vision and objectives.**

- **Attendance:** All students are required to be punctual and regular in attending their lectures. They are not allowed to be late or leave early except in situations of emergency, and they need to produce an authentic notification for these emergency situations.
- **Progression from year to year:** In order to progress from one year to the other and to be able to take all the majors in the subsequent year, the student needs to pass all the prerequisites.
- **Program completion or graduation requirements:** All students are required to successfully complete 4+1 years (160 credit hours) with a minimum required GPA score and to fulfill all university, college and program requirements.



**To achieve the program learning outcomes, number of teaching strategies are used as following:**

- **Theoretical lectures** are used to cover the objectives and learning outcomes for each course.
- **Practical sessions** are used to demonstrate and apply the clinical laboratory skills and knowledge.
- **Group Discussion** are applied to improve the communication and interpersonal skills.
- **Problem-based learning:** The students develop creative thinking and decision-making skills through implementation of case studies.
- **Student-learning and research activities:** Academic activities employed for achieving program learning outcomes such as journal club, scientific presentations, assignments, solving case studies etc.
- **Research project:** Carry out relevant researches in order to foster educational and scientific abilities.

Students at all levels are frequently involved in extracurricular activities and events that are carried out under the patronage of the college at a higher level and the program itself. These enhance the academics by giving an impetus to the overall goals and objectives of the program and act as catalysts in diversifying their learning experience. The aim of these activities are to develop new useful abilities among students that can top-up their graduate attributes positively. It will also enhance their social and inter-personal skills as well as promote sense of cultural harmony and values among them.

**Hyperlink**

- [Taif University guide for learning and teaching strategies](#)



**Alignment between Program Learning outcomes and Teaching Strategies**

N.	Learning Domain	PLOs	Teaching strategies					
			Lecturing	Discussion	Problem Based Learning	Student learning activities.	Practical sessions	Research activities
1	Knowledge	K1	√					
2		K2	√				√	
3	Skills	S1	√				√	
4		S2	√		√		√	
5		S3	√				√	
6		S4	√			√		
7	Competencies	C1	√				√	
8		C2	√					√
9		C3	√	√			√	
10		C4			√			√

## 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

The direct methods used for assessing of program learning outcomes are as follows:

- **Midterm and final exams:** students are assessed in the middle of the semester through midterm exams and they are provided with blue print for the final exam to manage their study time.
- **Laboratory report:** in each laboratory session, the students are required to submit a lab report to evaluate their psychomotor skills.
- **Assignments:** different ways are used to assess the students' knowledge such as written and black board assignments in order to develop reasoning and thinking abilities.
- **Assessments of scientific activities:** are applied through oral and poster presentations, as well as research proposal and thesis assessments.
- **Objectives-structured and practical examinations (OSPE):** are used as an objective tool in examining the students' practical skills.
- **Rubric:** the students' research and leadership skills are evaluated via designed rubric forms.

### Alignment between Program Learning outcomes and Assessment Methods

N.	Learning Domain	PLOs	Assessment methods					
			Exams	Laboratory Reports	Assessment of Scientific Activities	OSPE	Activities	Assignments
1	Knowledge	K1	√					√
2		K2	√	√				
3	Skills	S1	√	√				√
4		S2	√			√		
5		S3	√					
6		S4			√			
7	Competencies	C1	√	√				
8		C2	√		√			
9		C3	√		√			
10		C4	√				√	

**Indirect methods:**

The indirect methods used for assessing of program learning outcomes are as follows:

- Course evaluation surveys (CES).
- Program evaluation survey (PES).
- Field training survey,
- Alumni survey.

### Alignment between learning domains, teaching Strategies and assessment methods

NQF Learning Domains		Teaching Strategies	Assessment Methods
Knowledge	K1	<ul style="list-style-type: none"> <li>• Lectures.</li> </ul>	<ul style="list-style-type: none"> <li>• Exams</li> </ul>
	K2	<ul style="list-style-type: none"> <li>• Lectures.</li> <li>• Practical sessions.</li> </ul>	<ul style="list-style-type: none"> <li>• Exams</li> <li>• Lab reports</li> </ul>
Skills	S1	<ul style="list-style-type: none"> <li>• Lectures.</li> <li>• Practical sessions.</li> </ul>	<ul style="list-style-type: none"> <li>• Exams</li> <li>• Assignments</li> <li>• Lab Reports</li> </ul>
	S2	<ul style="list-style-type: none"> <li>• Lectures-</li> <li>• Practical sessions.</li> <li>• Problem based learning.</li> </ul>	<ul style="list-style-type: none"> <li>• Exams</li> <li>• OSPE</li> </ul>
	S3	<ul style="list-style-type: none"> <li>• Practical sessions.</li> <li>• Lectures.</li> </ul>	<ul style="list-style-type: none"> <li>• Exams</li> </ul>
	S4	<ul style="list-style-type: none"> <li>• Lectures.</li> <li>• Student learning activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Assessment of Scientific activities</li> </ul>
Core Competencies	C1	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Practical sessions</li> </ul>	<ul style="list-style-type: none"> <li>• Exams</li> <li>• Lab reports</li> </ul>
	C2	<ul style="list-style-type: none"> <li>• Lectures</li> <li>• Research activities</li> </ul>	<ul style="list-style-type: none"> <li>• Exams</li> <li>• Assessment of Scientific activities</li> </ul>
	C3	<ul style="list-style-type: none"> <li>• Group discussion</li> <li>• Lectures</li> <li>• Practical sessions</li> </ul>	<ul style="list-style-type: none"> <li>• Exams</li> <li>• Assessment of Scientific activities</li> </ul>
	C4	<ul style="list-style-type: none"> <li>• Problem based learning</li> <li>• Research project</li> </ul>	<ul style="list-style-type: none"> <li>• Activities</li> <li>• Exams</li> </ul>

## D. Student Admission and Support:

### 1. Student Admission Requirements

- The students applying for admission to the program of Clinical Laboratory Sciences are required to have Higher Secondary School certificate, with a minimum percentage, as outlined in the university's admission guidelines.
- The Students are required to produce a character certificate showing his/her code of conduct.
- The Students are required to pass medical examination before being enrolled in the program.
- 

#### Hyperlink

- [Admissions handbook of TU](#)



### 2. Guidance and Orientation Programs for New Students

- **University Orientation Program**
- Taif University conducts an orientation week at the beginning of each academic year for new students to introduce them to the University's culture, regulations, programs, facilities and services, students' rights and responsibilities and TU ethical code.
- The orientation program includes familiarizing students with the services provided to them, such as providing a vision of the mechanism of admission and registration, introducing students to their rights and obligations and any related matter in how to advance their academic progression.
- Presentations are conducted to;
  - (1) Offer help on how to use Central Library and the facilities available there for learning.
  - (2) Introduce a range of available activities for students.
  - (3) Offer academic support and academic counselling services.
- **Department Orientation Program**
- At the beginning of each academic semester, the department of Clinical Laboratory Sciences provides comprehensive orientation day for new students. This ensures their full understanding of the types of services, facilities available to them, their rights and duties, code of conduct, grievances, complaints, and other disciplinary procedures.

#### **The program of orientation delivers information and instructions about;**

- Overall program information
- Learning resources such as the library, and the digital knowledge databases.
- Program teaching strategies.
- Program assessment methods.
- Studies and exam regulations.
- Safety rules and regulations
- Students' academic counselling
- Participating in community services and voluntary works
- Participating in students' activities
- Internship regulation.
- Job opportunities.
- The importance of the research.

## Hyperlink

- [Academic Advising Student Handbook](#)



### 3. Student Counseling Services

(academic, career, psychological and social)

#### • **Counselling Services:**

- The department has a committee for students' academic counselling. It works under the supervision of Students' Advisory Office, which is administratively and organizationally affiliated with the University's Vice Presidency for Academic Affairs & Development. The office is concerned with providing student support and academic, psychological and professional advising.
- At the beginning of each academic semester, students are distributed to academic advisors in the department. The academic advisors work as consultants; to know what their students face and to help them overcome their educational, psychological and social hurdles.
- The students are being informed about the faculty office hours for their academic advisors.
- The academic advisors are responsible for regular follow up for the student results, in order to discover the low achievers and to guide them in solving their educational difficulties or changing their study program. Additionally, TU recognize the high achievers (two successive semesters with GPA equal or higher than 3.5) and reward them with Outstanding Achievement Award.
- In order to allow students to express their demands, problems and opinions, a Student Advisory Committee has been established to provide good interactions between program leaders and students.

#### • **Academic advising services includes:**

- Deleting or adding courses and determining which optional courses are best for students,
- Modifying schedules and offering advice concerning academic support.
- Solving students' issues with their instructors,
- Transferring students,
- Discovering their talent,
- Advising students on issues related to their failure and working towards offering opportunities for their success.

## Hyperlink

### (Psychological)

- <https://www.tu.edu.sa/En/University-Guidance-/238/Pages/21366/Unit-of-guidance-and-psychological-counseling>

### (Academic)

- <https://www.tu.edu.sa/En/University-Guidance-/238/Pages/21394/Unit-of-academic-Counseling->
- [Academic Advising Student Handbook](#)
- [Low Results Achiever Form](#)
- [Outstanding Achievement Award for Students](#)
- [Students Advisory Committee](#)
- [Academic Advising Faculty Handbook](#)
- [Academic Advising Comprehensive Handbook](#)



#### **4. Support for Special Need Students**

(low achievers, disabled, gifted and talented)

The Deanship of Admission and Registration divides students' GPAs into categories that are color coded to create a competitive atmosphere that encourages students to do their very best.

Each category represents five domains based on students' cumulative GPA and the minimum requirement for graduation as follows: Distinction, excellence, diligence, warning and failure.

- Distinction domain for students with 3.75 to 4 GPA
- Excellence domain for students with 3.50 to 3.74 GPA
- Diligence domain for students with 2.75 to 3.49 GPA
- Warning domain for students with 2.74 to the minimum requirement for graduation.
- Failure domain for students whose performance is below the set GPA for graduation.

The student's academic counselling committee in the department determines the domain of each student and shows the requirement for improving student's performance, based on his/her cumulative GPA.

##### **The academic advisor provides their executive plan on how to:**

- Enhance the level of low achiever students by facilitating their meetings with respective course instructors. They also help the struggling students with their exams preparation and time management.
- Motivate the distinguished students for further enhancements.

The department of Clinical Laboratory Sciences works in cooperation with the Deanship of Student Affairs for communications regarding distinguished students. This gives a chance to the excellent students to share and participate in all academic and research developments. It also advises and directs them to the available job opportunities and/or appropriate postgraduate programs.

## E. Teaching and Administrative Staff

### 1. Needed Teaching and Administrative Staff

Academic Rank	Specialty		Special Requirements / Skills (if any)	Required		
	General	Specific		M	F	T
Professors	Microbiology	<ul style="list-style-type: none"> <li>• Infection control</li> <li>• Clinical Bacteriology</li> <li>• Clinical Virology &amp; Mycology</li> <li>• Medical microbiology</li> </ul>		0/1	0/1	1
	Biochemistry	<ul style="list-style-type: none"> <li>• Medical Biochemistry</li> <li>• Clinical Biochemistry</li> <li>• Toxicology</li> </ul>		0/1	0/1	1
	Immunology	<ul style="list-style-type: none"> <li>• Basic Immunology</li> <li>• Clinical Immunology</li> </ul>		0/1	0/1	1
	Hematology	<ul style="list-style-type: none"> <li>• Hematology</li> <li>• Coagulation &amp; hemostasis</li> <li>• Transfusion &amp; transplantation Sciences</li> </ul>		0/1	0/1	1
Associate Professors	Medical Physics	<ul style="list-style-type: none"> <li>• Medical Physics</li> </ul>		1	1	2
	Medical Biology	<ul style="list-style-type: none"> <li>• Medical Biology</li> </ul>		1	1	2
	Parasitology	<ul style="list-style-type: none"> <li>• Parasitology</li> </ul>		1	1	2
	Microbiology	<ul style="list-style-type: none"> <li>• Infection control</li> <li>• Clinical Bacteriology</li> <li>• Clinical virology &amp; mycology</li> <li>• Medical microbiology</li> </ul>		1	1	2
	Biochemistry	<ul style="list-style-type: none"> <li>• Medical Biochemistry</li> <li>• Clinical Biochemistry</li> <li>• Toxicology</li> </ul>		1	1	2
	Genetics	<ul style="list-style-type: none"> <li>• Medical Genetics</li> <li>• Molecular biology</li> </ul>		1	1	2
	Physiology	<ul style="list-style-type: none"> <li>• Human Physiology</li> </ul>		1	1	2
	Immunology	<ul style="list-style-type: none"> <li>• Basic Immunology</li> <li>• Clinical Immunology</li> </ul>		1	1	2
	Hematology	<ul style="list-style-type: none"> <li>• Hematology</li> <li>• Coagulation &amp; hemostasis</li> <li>• Transfusion &amp; transplantation Sciences</li> </ul>		1	1	2
	Pathology	<ul style="list-style-type: none"> <li>• Pathology</li> <li>• Cytopathology</li> </ul>		1	1	2
Reproductive techniques	<ul style="list-style-type: none"> <li>• Assistive Reproductive techniques</li> </ul>		1	1	2	
Assistant Professors	Microbiology	<ul style="list-style-type: none"> <li>• Infection control</li> <li>• Clinical Bacteriology</li> <li>• Clinical virology &amp; mycology</li> <li>• Medical microbiology</li> </ul>		1	1	2
	Biochemistry	<ul style="list-style-type: none"> <li>• Medical Biochemistry</li> <li>• Clinical Biochemistry</li> </ul>		1	1	2
	Genetics	<ul style="list-style-type: none"> <li>• Medical Genetics</li> <li>• Molecular biology</li> </ul>		1	1	2
	Anatomy & histology	<ul style="list-style-type: none"> <li>• Anatomy and histology</li> <li>• Histopathology</li> </ul>		1	1	2

	Physiology	• Human Physiology		1	1	2
	Immunology	• Basic Immunology • Clinical Immunology		1	1	2
	Hematology	• Hematology • Coagulation & hemostasis • Transfusion & transplantation Sciences		1	1	2
	Pathology	• Pathology • Cytopathology		1	1	2
	Laboratory sciences	• Laboratory sciences		1	1	2
<b>Lecturers</b>	Medical Physics	• Medical Physics		1	1	2
	Medical Biology	• Medical Biology		1	1	2
	Parasitology	• Parasitology		1	1	2
	Microbiology	• Infection control • Clinical Bacteriology • Clinical virology & mycology • Medical microbiology		1	1	2
	Biochemistry	• Medical Biochemistry • Clinical Biochemistry		2	2	4
	Genetics	• Molecular biology		1	1	2
	Anatomy & histology	• Anatomy and histology • Histopathology		1	1	2
	Physiology	• Physiology		1	1	2
	Immunology	• Basic Immunology • Clinical Immunology		1	1	2
	Hematology	• Hematology • Coagulation & hemostasis • Transfusion & transplantation Sciences		1	1	2
	Pathology	• Pathology • Cytopathology		1	1	2
	Laboratory sciences	• Laboratory sciences		1	1	2
	<b>Teaching Assistants</b>	N/A	N/A		0	0
<b>Technicians and Laboratory Assistants</b>	Laboratory Science	Laboratory Science		3	4	7
<b>Administrative and Supportive Staff</b>	General Administration	Administration		3	3	6
<b>Others (specify)</b>	N/A	N/A		0	0	0



## 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

- **University Orientation Program**

- At the beginning of each academic year, the Deanship of University Development organizes a three-day orientation program for all new faculty. The program is organized by the Deanship of University Development in coordination with other relevant deanships, centers, and administrative departments in the University. The program's schedule includes the following:
  - Facilitate the new faculty adjustment to the University and local community.
  - Build enthusiasm for, and identification with, the University.
  - Giving a general overview of the University, its history, mission, vision, values, culture, strategic goals, and major developmental projects.
  - Informing new faculty members of their rights, obligations and clarifying the University's expectations of faculty and their related roles.
  - Providing new faculty members an opportunity to network with their peers and leaders and promoting collegiality and communal spirit.
  - Informing new faculty members about the services provided to them including health care and administrative support.
  - Giving information about learning resources such as the library, and the digital knowledge databases.
  - Informing new faculty members about research opportunities, including existing research teams.
  - Training the new faculty members on effective teaching skills, student assessment skills, classroom management, academic advising and use of the University's learning management system.

- **Department orientation program:**

- The department provides orientation for new faculty to ensure their understanding of the nature of the program, their rights, obligations, tasks, responsibilities and workload.
- **The department orientation program includes giving instructions and information about:**
  - College and department regulations.
  - Studies and exams regulations.
  - Safety rules and regulations.
  - Writing course specification and course report.
  - Using blackboard.
  - Participating in community services and voluntary works
  - Job description and committee works.

## 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.)

- **University professional development for teaching staff**
  - The vice deanship of professional development at Taif University sets a plan for developing the professional skills of staff members including workshops and courses at the beginning of each academic semester and announces these on the website.
- **Department professional development for teaching staff;**
  - The department of Clinical Laboratory Sciences provides professional and academic development programs in accordance with a plan that meets their needs and contributes to the development of their performance.
  - At the end of each academic year, the department assesses and identifies the needed professional skills to improve the academic staff's performance and send their requirement of courses and workshops for accreditation and development units of College of Applied Medical sciences.

## 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.)

The Library Affairs Deanship is responsible for the management and provision of learning resources to all students and staff at the University.

- The College of Applied Medical Sciences Library and Central Library are run and managed by the Library Affairs Deanship. These offer students and staff access to learning resources, including textbooks and other sources, based on their specific needs.
- All students and staff can use the Central Library daily from 8 am to 8 pm and the college library from 8 am to 2:30 pm. The library staff are available at these times to provide students and staff with necessary assistance and support needed.
- The Central and the College libraries provide enough copies of all books, have regulations governing the use of learning resources, and ensure their availability when needed.
- The Library Affairs Deanship requests the departmental needs of books and other learning resources on an annual basis, in order to update and ensure the quality,
- The Library Affairs Deanship has designed a form for books suggestion, where students and staff can fill in the form and submit it electronically or in hard copy. In addition, the Deanship has also formed a committee for books procurement, with members of each academic college, to ensure their specific academic needs.

- The Library services have a robust electronic search system (Sirsi Dynix Symphony) which can be used by all its beneficiaries, to search the learning resources. The Library database includes all its hard-copy learning resources, such as books and theses. In addition, all users of the Libraries, including the department's students and faculty staff, have full access to the Saudi Digital Library, which contains a large number of online databases giving access to numerous books, conference proceedings, theses and scholarly journals. All staff and faculty can access the Saudi Digital Library from inside or outside the university.
- The Assessment and Evaluation Centre at the University requests all students and faculty to fill in an online survey at the end of each semester, to evaluate the library services, facilities and learning resources of Central and College Libraries. The survey results are then send to the Library Affairs Deanship, which works on its improvement plan.

### Hyperlink

- <https://sdl.edu.sa/SDLPortal/ar/Publishers.aspx>
- <http://libopac.tu.edu.sa/uhtbin/cgiirsi.exe/?ps=EbBgImgqSQ/MAIN/312330002/60/502/X>
- [TU Library Policies](#)
- [TU Library Procedural Guide](#)



## 2. Facilities and Equipment

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

- **Classrooms:**  
The department of Clinical Laboratory Sciences shares 31 college classrooms that are equipped with data show projectors, white boards and chairs. Classrooms are well-lit, ventilated and can accommodate approximately forty students at one time. Administration of academic support of the University has set barcode signs on each classroom to scan and send support if any defect was encountered.
- **Laboratories**  
The department of Clinical Laboratory Sciences has 9 laboratories equipped with the required instruments, gadgets, chemicals, kits and other material needed for conducting practical sessions. The Laboratories are suitable for the types of courses taught in the program and are sufficient to conduct scientific research studies. The Departmental Laboratory and Safety Committee applies appropriate mechanisms to maintain and update lab facilities.
- **Laboratory Instrumentations** are annually reviewed for maintenance and for purchasing new developed instruments through the Departmental Laboratory and Safety committee.

### Hyperlink

- [Labs and Classrooms](#)
- [Lab Equipment](#)
- [Lab Chemicals](#)
- [Instruments and Chemicals Purchase](#)
- [Instrumental Maintenance](#)
- [Final Instrumental Maintenance Report](#)
- [Laboratory and Safety Committee](#)
- [Model for Equipment and Chemicals Purchasing Specifications and Forms](#)



- **Library:**

There are two libraries available for students and staff; College of Applied Medical Sciences Library and Central Library in the main campus.

The department implements effective procedures for the management of resources and reference materials needed to support teaching and learning processes. The Library has a sufficient number of resources that are easily accessible and appropriate to the needs of the program and number of students. In addition, specialized electronic resources, appropriate databases and electronic systems are made available. This allows the beneficiaries to access the information, research materials, and scientific journals from inside or outside the institution.

### Hyperlink

- [TU Library Guidelines](#)



- **Medical Facilities**

TU provides medical services to all students and faculty members through The Medical Services Center (MSC). The MSC has two branches located at Taif University's main campus in Alhawaya, In addition to providing educational, treatment and training services to University's students, it also provide them treatments through general and specialized clinics. The Clinics are equipped with the latest equipment and medical supplies. Furthermore, they are supervised by specialized medical and technical staff, in accordance with the highest international standards and rules of occupational safety.

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

- The Laboratories and safety committee is responsible for ensuring health and general professional safety in the department. The safety procedures are applied to the facilities, equipment, educational and research activities that are carried out in the department.
- The committee works hand in hand with Operation and Maintenance, Professional Safety and Health Departments.
- In order to provide a healthy, safe, sustainable and supportive environment, the Operation and Maintenance Department of the university has made contract with a company responsible for daily cleaning of offices, classrooms, laboratories, corridors,

stairs, restrooms, and college courtyards. The company also takes care of waste disposal, gardening and landscaping. College of Applied Medical Sciences premises is designated as smoke-free zone and fire-alarms have been installed appropriately and drills are conducted periodically.

- Periodic maintenance is undertaken for electric power sources, electric connections, water sources, lighting, cameras, sewage, potential sources of infection, pollution and other processes.
- College of Applied Medical Sciences in cooperation with Professional Safety and Health Department conducts several training courses about safety for academic staff and technician. Use of personal protective equipment, such as gloves, face masks, eye-goggles and lab coats are mandatory while working with hazardous materials.
- Also, the Laboratories and safety committee ensure the existence of safety instructions (using plates on walls), marking of exit doors, and appropriate guidance to assembly points in the event of emergency evacuations.
- The University has signed a contract with a specialized company to dispose of hazardous waste efficiently and effectively.

#### Hyperlink

- [Directory of Polices and Guidelines Followed in the Lab](#)
- [Lab safety daily Report after use](#)

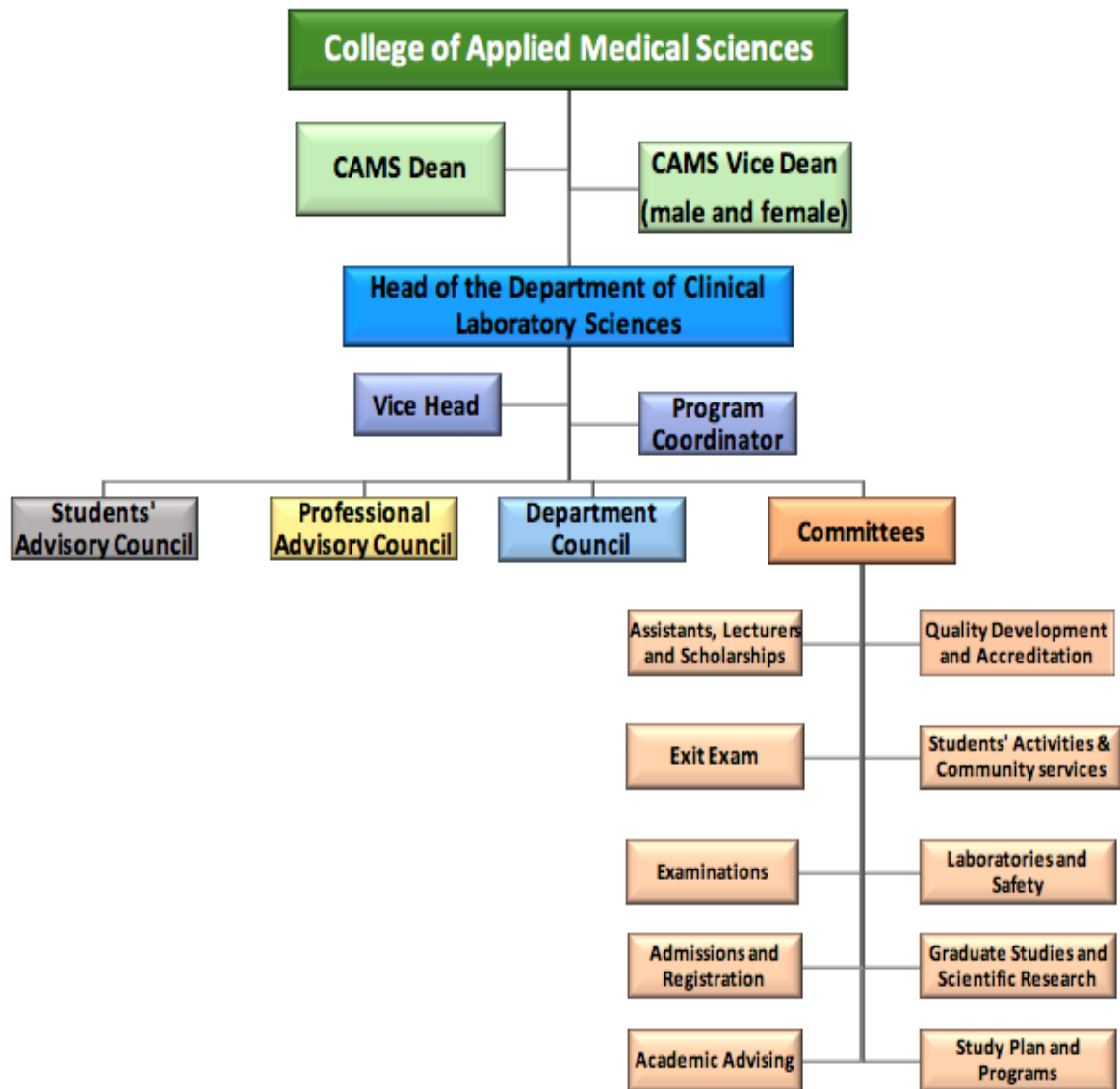


## G. Program Management and Regulations

### 1. Program Management

#### 1.1. Program Structure

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



## 1.2 Stakeholders Involvement

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

- **Students Advisory Committee**

Students represent one of the most effective internal stakeholders in the program planning and development. They play a major role in the academic progress of the program and are effectively attributing towards its progress. They have a major say in all of the curricular, co-curricular and extra-curricular domains of the program and form an important part of student advising committee by being in direct contact with HOD and deputy HOD. All the issues related to the student affairs are represented and addressed in their monthly meetings, which are conducted in presence of program chairs.

- **Professional advisory Committee**

The professional advisory committee comprises of individuals who are experienced and knowledgeable in the professional field serving the academic program. The committee consists of a group of employers, employees and alumni who provide advice and consultancy to department members at the college to design, develop, implement, evaluate and improve the academic program. The committee works according to a pre-defined plan aimed at the promotion and improvement of the existing academic program, which contributes to the success of students in their future prospects.

- **Hospital Internship**

The internship hosting institutes and hospitals assess the students' abilities and hence provide their valuable feedback on program learning outcomes and its achievement.

## 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.)

### Hyperlink

- [Quality management system manual](#)
- [Teaching, learning and assessment manual](#)
- [Colleges and Deanships Organizational Handbook](#)
- [Academic program design and development manual](#)
- [Admission Guidelines](#)
- [TU-Student Exam Regulations](#)
- [Final Exam Regulations in College of Applied Medical Sciences](#)
- [Students Rights and Responsibilities Laws](#)
- [Students Disciplinary Regulations](#)
- [TU-Final Exam Regulations](#)
- [TU-Quality of Final Exam Design](#)
- [Studies and Exam Regulations](#)



## H. Program Quality Assurance

### 1. Program Quality Assurance System

Provide online link to quality assurance manual

The quality assurance system in the program of Clinical Laboratory Sciences follows the same regulations as mentioned in the Taif University quality management system guide

#### Hyperlink

- [TU-Quality Management System](#)



### 2. Program Quality Monitoring Procedures

The procedures used for monitoring program quality of Clinical Laboratory Sciences are as follows:

1. The program management implements an effective quality assurance and management system that is consistent with the Taif University quality system.
2. The teaching staff, employee, and students participate in planning, quality assurance, and decision-making processes.
3. The program management approves key performance indicators that accurately measure the program performance and coordinates to provide regular data on them.
4. The program analyzes the evaluation data annually (e.g., performance indicators and benchmarking data, student progress, program completion rates, student evaluations of the program, courses and services, views of graduates and employers); and results are used in planning, development, and decision-making processes.
5. The program conducts a periodic evaluation annually and prepares reports about the overall level of quality, with the identification of points of strength and weakness; plans for improvement; and follows up its implementation. The program also conducts a comprehensive evaluation every five years.

#### Hyperlink

- [TU-Quality Management System](#)



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

Following points are considered to monitor the quality and progress of courses that are taught by other departments, as part of university requirements:

- The department leaders arrange a meeting with all academic staff from other departments, such as Islamic Studies, English, Biostatistics and Medical Physics. They are informed about the department rules, regulations and communication methods to be adopted in order to facilitate exchanging of information. They are instructed to provide the students with course specifications containing details such as learning outcomes, teaching and learning strategies, dates and methods of assessments right in their first meeting with students.
- The courses are periodically evaluated for ensuring the effectiveness of the teaching and learning strategies as well as assessment methods. Subsequently, reports are prepared for each course.



- The Study Plan and Program Committee inspects course specifications at the beginning of each semester and reviews course reports at the end and gives suitable recommendations to be included in the program annual report. The Development and Academic Accreditation Committee review the annual report and send back its suggestions to the Study Plan and Programs Committee in order to improve the quality of courses.

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

**The male and female sections are working collaboratively, in order to ensure consistency in all aspects of program function that mainly include the following:**

- The department is under direct and constant supervision of male and female head and deputy headships that work with mutual consent in all aspects of its governance.
- The administrative committees in the department have male and female governing members and decisions are made mutually between the two sections.
- Each course in the program has a coordinator (male or female) appointed by the department chair, who is responsible for regulating different aspects of the course in collaboration with other staff involved in teaching. The program unifies application of its study plan, the course specifications and assessment methods (activities, midterm exams and final exams) and academic file that is submitted at the end of each semester.
- Regular meetings are held between the male and female sections on monthly basis, where all departmental agendas are discussed, approved and forwarded to College Council for further consideration.
- The student advisory committee consists of male and female class representatives and regular meetings are held to discuss issues raised by the students.

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

TU is supporting different types of research collaborations, funding new research groups and establishing partnerships with foreign agencies.

Furthermore, the departmental research committee facilitates collaboration of student's graduate capstone researches with the Directorate of Health Affairs in Taif region.

### Hyperlink



- [Memorandum of understanding \(MOU\) between Taif University and Department of Health Affairs Directorate in Taif region](#)
- [Memorandum of understanding \(MOU\) between Taif University and Armed Forces Hospitals in Taif](#)

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

**The plan of assessment of Clinical Laboratory Sciences program will be carried out in an organized manner as follow:**

- At the beginning of each semester, a meeting will be held in the presence of all faculty members and a decision made regarding selection of specific program learning outcomes that will be used to assess the achievement of the program.
- The assessment of program achievement will be done by choosing some of the courses that show alignment with the selected PLOs through the map matrix.
- A variety of direct and indirect methods of measuring PLOs will be implemented for each selected PLO, in order to make an effective measurement of intended course learning outcomes.

An example for direct and indirect methods are mentioned below:

### 1. Direct Methods:

- Exams
- Reports
- Assessment of scientific activities
- Field training reports

### 2. Indirect Methods:

- Course evaluation surveys,
- Stakeholder's opinion surveys about the program
- Alumni surveys.

- The results for each method will be compared with the target values and considered in setting up the action plan for further improvement in achieving intended learning outcomes of the selected courses.
- Year to year progression of student achievement as measured by different assessment strategies will be taken into consideration and action plan will be set up accordingly.
- Saudi Licensor examination for clinical laboratory specialists will be used in assessing the intended CLOs and PLOs for particular cohort of graduated students.

As examples of assessment of PLOs, the plans of Medical Biochemistry 1 course has been presented [here](#).

## 7. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Program Leadership	<ul style="list-style-type: none"> <li>• Staff members/administrative staff</li> </ul>	<ul style="list-style-type: none"> <li>• Surveys</li> </ul>	At the end of each academic year.
Effectiveness of Teaching and Assessment Strategies	<ul style="list-style-type: none"> <li>• Students</li> <li>• External stakeholders (alumni, employers)</li> </ul>	<ul style="list-style-type: none"> <li>• Student's surveys</li> <li>• Reports</li> </ul>	At the end of each semester in an academic year.
Availability of Learning Resources	<ul style="list-style-type: none"> <li>• Students</li> <li>• Teachers</li> </ul>	<ul style="list-style-type: none"> <li>• Student's surveys.</li> <li>• Faculty surveys.</li> </ul>	At the end of each semester in an academic year.
Availability of Facilities and Equipment	<ul style="list-style-type: none"> <li>• Students</li> <li>• Teachers</li> </ul>	<ul style="list-style-type: none"> <li>• Student's surveys.</li> <li>• Faculty surveys.</li> </ul>	At the beginning of each academic year.
Community Services	<ul style="list-style-type: none"> <li>• Beneficiaries</li> </ul>	<ul style="list-style-type: none"> <li>• Interviews</li> <li>• Beneficiary satisfaction surveys</li> </ul>	All through the semesters.

**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 in one year: 2019-2020/1440-1441

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
1	KPI-P-01	Percentage of achieved indicators of the program operational plan objectives.	70%	<b>Statistical (Percentage)</b> Percentage of performance indicators of the operational plan objectives of the program that achieved the targeted annual level to the total number of indicators targeted for these objectives in the same year.	At the beginning of each academic year.
2	KPI-P-02	Students' evaluation of quality of learning experience in the program.	4.0 out of 5.0	<b>Average satisfaction (Rating)</b> Average of overall rating of final year students for the quality of learning experience in the program on a five-point scale in an annual survey.	At the end of each academic year.
3	KPI-P-03	Students' evaluation of the quality of the courses.	4.0 out of 5.0	<b>Average satisfaction (Rating)</b> Average students overall rating for the quality of courses on a five-point scale in an annual survey.	At the end of each semester.
4	KPI-P-04	Completion rate.	85%	<b>Statistical (Percentage)</b> Proportion of undergraduate students who completed the program in minimum time in each cohort.	At the end of clinical internship in each academic year.
5	KPI-P-05	First-year students' retention rate.	90%	<b>Statistical (Percentage)</b> Percentage of first-year undergraduate students who continue at the program the next year to the total number of first-year students in the same year.	At the end of each academic year.

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
6	KPI-P-06	Students' performance in the professional and/or national examinations.	90%	<b>Statistical (Percentage)</b> Percentage of students or graduates who were successful in the professional and / or national examinations, or their score average and median (if any)	At the beginning of each academic year. *Under process
7	KPI-P-07	Graduates' employability and enrolment in postgraduate programs.	50%	<b>Statistical (Percentage)</b> Percentage of graduates from the program who within a year of graduation were:  a. employed  b. enrolled in postgraduate programs during the first year of their graduation to the total number of graduates in the same year.	At the end of each academic year.
8	KPI-P-08	Average number of students in the class.	25 per class	<b>Statistical (Number)</b> Average number of students per class (in each teaching session/activity: lecture, small group, tutorial, laboratory or clinical session).	At the end of each academic year.
9	KPI-P-09	Employers' evaluation of the program graduates' proficiency.	4.0 out of 5.0	<b>Average satisfaction (Rating)</b> Average of overall rating of employers for the proficiency of the program graduates on a five-point scale in an annual survey.	At the end of each academic year.

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
10	KPI-P-10	Students' satisfaction with the offered services.	4.0 out of 5.0	<b>Average satisfaction (Rating)</b> Average of students' satisfaction rate with the various services offered by the program on a five-point scale in an annual survey.	At the end of each academic year.
11	KPI-P-11	Ratio of students to teaching staff.	10:1	<b>Statistical (Ratio)</b> Ratio of the total number of students to the total number of full-time and full-time equivalent teaching staff in the program.	At the end of each academic year.
12	KPI-P-12	Percentage of teaching staff distribution.	<ul style="list-style-type: none"> <li>• 04 Professors</li> <li>• 22 Associate professors</li> <li>• 18 Assistant professors</li> <li>• 26 Lecturers</li> <li>• 07 Specialist &amp; Technicians</li> </ul>	<b>Statistical (Percentage)</b> Percentage of teaching staff distribution based on: <ul style="list-style-type: none"> <li>a. Gender</li> <li>b. Branches</li> <li>c. Academic Ranking</li> </ul>	At the end of each academic year.
13	KPI-P-13	Proportion of teaching staff leaving the program.	Less than 5%	<b>Statistical (Percentage)</b> Proportion of teaching staff leaving the program annually for reasons other than age retirement to the total number of teaching staff.	At the end of each academic year.
14	KPI-P-14	Percentage of publications of faculty members.	50%	<b>Statistical (Percentage)</b> Percentage of full-time faculty members who published at least one research during the year to total faculty members in the program.	At the end of each academic year.

No	KPIs Code	KPIs	Target	Measurement Methods	Measurement Time
15	KPI-P-15	Rate of published research per faculty member.	1.0 per faculty member	<p><b>Statistical (Ratio)</b></p> <p>The average number of refereed and/or published research per each faculty member during the year (total number of refereed and/or published research to the total number of full-time or equivalent faculty members during the year).</p>	At the end of each academic year.
16	KPI-P-16	Citations rate in refereed journals per faculty member.	50 per faculty member	<p><b>Statistical (Ratio)</b></p> <p>The average number of citations in refereed journals from published research per faculty member in the program (total number of citations in refereed journals from published research for full-time or equivalent faculty members to the total research published).</p>	At the end of each academic year.
17	KPI-P-17	Satisfaction of beneficiaries with the learning resources.	4.0 out of 5.0	<p><b>Average satisfaction (Rating)</b></p> <p>Average of beneficiaries' satisfaction rate with the adequacy and diversity of learning resources on a five-point scale in an annual survey.</p>	At the end of each academic year.

## I. Specification Approval Data

Council / Committee	DEPARTMENT COUNCIL
Reference No.	NUMBER 07
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