

جامعة الطائف
TAIF UNIVERSITY

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Student's Academic Guide

Collage of Applied Medical Sciences

Department of Clinical Laboratory Sciences

HISTORY

The Collage of Applied Medical Sciences was established in the year 1429/1430 AH, in accordance with the royal decree, which includes the transfer of Health collages from the Ministry of Health's affiliation to the Ministry of Higher Education, represented in the Saudi universities. The Collage contributes to meeting the Saudi community's medical needs by supporting with health professionals in the fields of Clinical Laboratories, Physiotherapy, Nursing and Diagnostic Radiology. Those professionals are qualified to meet the service standards provided by medical authorities to keep pace with the global community.



Despite the recent establishment of the college, it has made a paradigm shift, represented in graduating a large student number of the four majors, both male and female students, who are now performing their work in various aspects of healthy life in the Kingdom, and the college plans soon to open several graduate studies programs to contribute to the field of scientific research.

Collage's Vision

Effective participation in the health services system in the Kingdom by preparing trained national Saudis in various applied medical specialties.

Collage's Mission

The Collage seeks to graduate national health competencies specialized in applied medical sciences, and to conduct scientific research in line with the scientific progress in accordance with the Islamic law to meet the needs of the community.

Clinical Laboratories Department Program



Head of department Message

In the name of God, the Compassionate, the Merciful

In the Clinical Laboratory Sciences Department, we seek to prepare qualified national cadres to serve as clinical laboratory specialists. We are aware of the importance of raising the quality of education and refining applied skills in a way that would benefit the level and the quality of the graduates of the department. Believing this, the department has been keen since its inception to provide the necessary environment for the continuous modernization and development of the program.

The department includes a number of academic and technical competencies that are constantly striving to improve the educational quality of time. Educational and research laboratories are equipped with the latest technologies that help students benefit and practice laboratory experiments.

In conclusion, we ask God Almighty that our work shall be sincere to God and help us to serve this giving nation.

Head of Laboratory and Clinical Technology Department



Program's Vision

Excellence in clinical laboratory sciences and contribution to community service

Program's Mission

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



ABOUT THE DEPARTMENT

The Department of **Clinical Laboratory Sciences** (CLS) is one of the most important medical specialties, as the studying includes four main majors i.e., medical microbiology, clinical biochemistry, hematology, and histopathology.

Medical microbiology is concerned with the study of pathogenic microorganisms, in which students learn the methods of their isolation and identification to accurately diagnose and treat infection.

In clinical biochemistry, students are introduced to methods of measuring and monitoring the biochemical changes in the human body in diseases. Moreover, diseases affecting red and white blood cells and platelets such as anemia and leukemia are the subject of study in Hematology. Also, the science of transfusion is concerned with safe methods of transferring blood and its components from blood donors to those in need. As for histopathology, it studies the changes in body tissues in time of diseases. The program is completed by graduating laboratory specialists with a great knowledge and cognitive skills, in accordance with Islamic values and traditions. Following the eight semesters, an internship year (practical training) is required of all students before awarding the bachelor's degree in clinical laboratory sciences.

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.



Graduate Attributes

Characteristics of Clinical Laboratory Sciences graduates:

1. Apply “knowledge, critical thinking and problem solving skills” in laboratory practice.
2. Employ “effective communication skills” in dealing with individuals and health care providers.
3. Demonstrate “professionalism” in the workplace in accordance with laboratory code of ethics.
4. 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-centered 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.



Graduate employment opportunities

The Department of Medical Laboratories prepares its students to work in the clinical laboratories that provide routine and urgent laboratory medical analyses for diagnostic purposes and follow up on patients' health status. Graduates of Colleges of Applied Medical Sciences - Department of Medical Laboratories - can work in several fields and workplaces, **including the following:**

1. Hospital's and regional laboratories
2. Medical Research Centers
3. Medical Consultation centers
4. Private laboratories
5. Education
6. Forensic biological sciences
7. Laboratory information systems
8. Public Health and Infection Control
9. Product research and development
10. Medical laboratory equipment and supplies
11. Supervision and management of health facilities
12. Quality controls program.

Study Plan



	Course Code	Course Title	Required or Elective	Credit Hours
Level 1 1 1st Year Semester 1	370111-4	Medical Biology (1)	Required	3 theory+1 practical
	370112-3	Medical Chemistry (1)		2 theory+1 practical
	370113-3	Basic Medical Statistics		3 theory
	990311-2	University Study Skills		2 theory
	990211-2	Arabic Language Skills		2 theory
	990805-2	Intensive English 1		2 theory
Level 2 2 1st Year Semester 2	370211-4	Medical Biology (2)	Required	3 theory+1 practical
	370212-4	Medical Chemistry (2)		3 theory+1 practical
	370213-3	Medical Physics		2 theory+1 practical
	990111-2	Fundamental of Islamic Culture		2 theory
	999806-2	Intensive English 2		2 theory
	999807-2	English For Specific Purposes		2 theory

Level 3 2nd Year Semester 1	373216-3	Medical Genetics	Required	3 theory
	373218-2	Professional and communication skills		2 theory
	373219-3	Principle of Anatomy and Histology		2 theory+1 practical
	373220-2	Human Physiology		2 theory
	373225-3	Laboratory Skills		2 theory+1 practical
	2004112-2	Islamic Culture (Moral and Values)		2 theory
Level 4 2nd Year Semester 2	105115-2	History Of The Kingdom	Required	2 theory
	373239-3	Basic of Immunology		2 theory+1 practical
	373226-3	Medical Biochemistry		2 theory+1 practical
	373228-3	Basic of Medical Microbiology		2 theory+1 practical
	373229-2	Medical Laboratory Instrumentation		2 theory
	373238-2	General and Systemic pathology		2 theory

Level 5 3rd Year Semester 1	999814-2	Elective English 1	Required	2 theory
	373310-3	Clinical Biochemistry 1		2 theory+1 practical
	373311-2	Clinical Immunology		2 theory
	373312-3	Histopathological Techniques		2 theory+1 practical
	373313-3	Hematology 1		2 theory+1 practical
	373314-3	Diagnostic Molecular Biology		2 theory+1 practical
Level 6 3rd Year Semester 2	20043207-2	Islamic Culture (Human Rights)	Required	2 theory
	373320-3	Clinical Biochemistry 2		2 theory+1 practical
	373321-3	Diagnostic Parasitology		2 theory+1 practical
	373322-3	Clinical Bacteriology		2 theory+1 practical
	373324-2	Toxicology		1 theory+1 practical
	373323-3	Hematology 2		2 theory+1 practical
373326-2	Cytopathology	1 theory+1 practical		

Level 7 4th Year Semester 1	990114-2	Islamic Culture 4	Required	2 theory
	373410-3	Clinical Virology and Mycology		2 theory+1 practical
	373411-2	Coagulation and Haemostasias		1 theory+1 practical
	373412-3	Clinical Practice		3 Hospital practice
	373413-3	Transfusion and transplantation Sciences		2 theory+1 practical
	373414-2	Research in health science		2 theory
	373415-2	Assisted Reproductive Techniques		1 theory+1 practical
Level 8 4th Year Semester 2	373420-3	Integrated Laboratory Sciences	Required	3 theory
	373421-2	Infection control in Hospital		2 theory
	373422-8	Student's Project		8 Group discussion
	373423-2	Laboratory Management and Quality Control		2 theory

Internship Year				
9 10 Alternating through the year	373511-2	Phlebotomy & Reception	Required	Clinical Practice
	373512-3	Microbiology		
	373513-2	Parasitology		
	373514-3	Serology & Immunology		
	373515-3	Clinical Biochemistry		
	373516-2	Hormones		
	373521-2	Molecular Diagnostics		
	373522-2	Drugs & Toxicology		
	373523-3	Hematology		
	373524-3	Blood Bank		
	373525-3	Histopathology & Cytology		
	373526-3	Quality Control		

Rules & Regulations of Undergraduate Study & Examinations

Academic Year: Two regular semesters and a summer session, if any.

Academic Semester: A period of no less than fifteen (15) weeks of instruction, not including the registration and final examination periods.

Summer session: A period not exceeding eight (8) weeks of instruction, not including the registration and final examination periods. The weekly duration of each course in a summer session is twice its duration during the regular academic semester.

Academic Level: In dictates the level of study. The levels required for graduation are eight (8) or more, in accordance with the specifications of each approved degree program.

Course: a subject of study within a certain academic level of the approved degree plan in each major. Each course has a number, code, title, and detailed description of its contents to distinguish it from other courses. A portfolio on each course is kept in its corresponding department for follow-up, evaluation, and updates. Some courses may have prerequisite or co requisite requirement(s).

Credit Hour: Each of the weekly lectures, with a duration not less than fifty (50) minutes or a laboratory session or field study of not less than 100 minutes' duration.

Academic Probation: A notification given to a student with a cumulative GPA below minimum acceptable limit as explained in these regulations.

Incomplete Grade: A provisional grade assigned to each course in which a student fails to complete the requirements by the required date.

In-Progress Grade: A provisional grade assigned to each course which requires more than one semester to complete.

Semester GPA: The total quality points a student has earned, divided by the credit hours assigned for all courses taken in each semester. Total quality points are calculated by multiplying the credit hours by the grade point in each course.

Cumulative GPA: The total quality points a student has earned in all courses taken since enrolling at the University, divided by the total number of credit hours assigned for these.

General grade: The assessment of a student's scholastic achievement during his/her study at the University.

Minimum Course load: The minimum number of credit hours a student can register determined by his/her academic status, and in accordance with the University Council decisions.

Academic Record: A statement of the student's course of study, which includes the courses taught in each semester with their codes, names, and grades obtained, along with the symbols and values of those grades. The semester GPA, cumulative GPA and general grade are also presented, in addition to the courses from which the transferred student is exempt.

Study System

Undergraduate study follows the academic level system. Undergraduate study comprises a minimum of eight levels. The duration of an academic level is one semester. Students are promoted successively from one academic level to another, in accordance with the promotion rules.

- **Article Seven:** The Levels System: According to the academic level system, the academic year is divided into two regular semesters and, if available, one summer session that is usually half of the time of a regular semester. The degree requirements necessary for graduation are distributed across different levels, according to the degree plan approved by the University Council.

Attendance and Withdrawal

- **Article 9** A regular student is required to attend lectures and laboratory sessions. If his/her attendance is less than the limit determined by the University Council (75 percent of the lectures and laboratory sessions assigned for each course), the student will be barred from continuing the course and will be denied entrance to the respective final examination.
- **Article 10** The College Council or whatever body it delegates its authority to, may exempt a denied student from the provisions of attendance and allow him/her to take the examination, provided that the student presents an acceptable excuse to the council. The University Council determines the percentage of attendance, which must not be less than 50 percent of the lectures and laboratory sessions specified for the course.
- **Article 11** A student who is absent for a final examination, will be given a zero grade for that examination. His/her grade in the course will be calculated based on the class work score he/she obtained over the semester.
- **Article 12** If a student fails to attend a final examination in any course but offers a compelling excuse, the College Council may choose to accept his/her excuse and allow him/her to take a make-up examination. The makeup examination must be taken prior to the end of the following semester. In such cases, the course grade will be given to the student after the make-up examination.
- **Article 13** A student may withdraw from the University for a semester, without his/her being considered as having failed the courses, if he/she presents an acceptable excuse to the authorized body specified by the University Council at least five weeks prior to the beginning of the final examinations. Under exceptional circumstances, the University Council may extend the permitted deadline for withdrawal and assign a W grade to the student. This semester will be included in the period required for completion of the program degree.

Postponement and Interruption Of Studies

- **Article 14** A student may postpone study for reasons determined acceptable by the College Council. The postponement duration cannot be more than two consecutive regular semesters or three non-consecutive regular semesters as maximum during his/her study at the University; otherwise, he/she will be dismissed from the University. The University Council may make exceptions when it deems necessary. The postponed period is not included in the period required for completion of the program degree.
- **Article 15** If a regular student interrupts his/her studies without submitting a postponement application, he/she will be dismissed from the University. The University Council also may dismiss a student if he/she interrupts his/her studies for a period less than one semester. Article 16 A student is not considered to have interrupted his/her studies during those semesters when he/she is a visiting student at another university.

Re-Enrollment

Article 17 A student whose enrollment is cancelled may apply for re-enrollment using the same university ID number and academic record he/she had before cancellation of his/her enrollment, according to the following regulations:

1. He/she must apply for re-enrollment within four regular semesters from the date of dismissal.
2. The College Council and the authorities concerned must approve the re-enrollment.
3. Four or more semesters have lapsed since he/she interrupts his/her studies from the University,
4. The student can apply to the University for admission as a new student without consideration of his/her old academic record if he/she fulfills all the admission requirements announced at the time of application.
5. A student can be granted re-enrollment only once.
6. The University Council may make exceptions when it deems necessary.
7. A student cannot be re-enrolled if he/she has been on probation prior to his/her cancellation of enrollment.

Article 18 A student who has been dismissed from the University for academic or disciplinary reasons, or who has been dismissed from another university for disciplinary reasons, will not be granted readmission. If it becomes evident after admission that he/she was dismissed for such.

Dismissal from The University

Article 20 A student will be dismissed from the University in either of the following situations: a. The student receives a maximum of three consecutive academic probations for having a cumulative GPA lower than 2.00 out of 5.00, or 1.00 out of 4.00. Based on the recommendations of the College Council, the University Council may grant a fourth chance to a student who can improve his/her cumulative GPA by studying the courses available. b. A student fails to complete the graduation requirements within a maximum additional period, equal to one-half of the period determined for his/her graduation in the original program period. The University Council may make an exception and award the student the opportunity to complete the graduation requirements within an additional period of a maximum duration equal to that specified for graduation. c. The University Council may make an exception and give students falls under (a) or (b) the opportunity to complete their studies within an additional period of two semesters.

Graduation

The student graduates after successfully completing the graduation requirements according to the study plan, provided that his GPA is not less than acceptable and that he has successfully completed the Internship year of compulsory training. The Deanship of Admission and Registration coordinates the regular procedures for the student to obtain the bachelor's degree of Applied Medical Sciences in clinical laboratory sciences specialty.

Upon the recommendation of the College Vice Deanship for Academic Affairs in coordination with the concerned department, the College Council may determine appropriate courses for the student to study to raise his or her GPA before completing the training year (Internship) if he or she succeeds in the courses and fails in the average.

Internship

1. Students who have completed the requirements of the bachelor's degree are required to spend a compulsory year of training (Internship year) for a period of 12 months. The College Board determines the date of its commencement based on the recommendation of the Vice Deanship for Clinical Affairs or the Academic Office.
2. The compulsory year of training includes training periods in different laboratory fields according to the CLS program.
3. At the end of each training period, the trainee of the College of Applied Medical Sciences shall be evaluated by the competent department based on the report of the committee overseeing the training. If the student receives a report with less than "Acceptable", he or she shall repeat the training period or part of it. This only proceed upon the recommendation of the department board based on the report of the committee supervising the clinical training, and its accreditation by the faculty's dean.
4. Upon successful completion of the training year, the trainee is granted a certificate indicating the training periods in each major, approved by the collage's dean and based on the recommendation of the College Training Unit (and he or she is not allowed to practice the profession of his or her specialty except after obtaining this certificate).



College Transfer Policies

First: Students from outside the university may be transferred to the College of Applied Medical Sciences at Taif University according to the following regulations:

1. The student must fulfill the conditions for admission and registration in the College of Applied Medical Sciences at Taif University.
2. The student wishing to enroll in one of the programs of the College of Applied Medical Sciences must have studied in a program similar to the one to be transferred to in a college recognized by the Ministry of Higher Education.
3. He should not be dismissed from the university from which he was transferred for a disciplinary action. If it becomes clear after the transfer of the student that he was previously dismissed for a disciplinary reason, his registration is considered canceled from the date of acceptance of his transfer to the college.
4. The transfer request should be submitted according to the procedures and dates announced at Taif University.
5. Transfer applications are accepted based on the recommendation of the college admission committee with the approval of the college board, and upon the availability of places and capabilities.
6. The student wishing to transfer must have obtained a general grade of "very good" (b), that is 3 out of 4 GPA.
7. The College Board equates the specialized courses previously studied by the student based on the recommendations of the concerned departments according to the following:
 - a. Courses with a passing grade of no less than Good (C), that is, GPA of 1.75 out of 4 or higher are equated with their equivalents in the faculty, recorded in the student's academic record but not calculated of his cumulative GPA
 - b. The number of scheduled units that the transferred student is required to study at Taif university must not be less than 60% of the number of scheduled units required to obtain a bachelor's degree.
 - c. The equivalence of non-specialized subjects is done according to the legal procedures followed by the Deanship of Admission and Registration in coordination with the Deanship at Taif University

Second: Transfer from within Taif University.

It is permissible to transfer to the College of Applied Medical Sciences from other colleges of the university, with the approval of the Deans of the two colleges in concern, in accordance with the conditions approved by the Council of the College of Applied Medical Sciences, which are as follows:

- a. High school GPA is not less than 90%.
- b. The percentage of transferred students does not exceed 10% of the percentage of students admitted to the college in this academic year.
- c. GPA is not less than 3 out of 4 or 4 out of 5
- d. All the courses that have been previously studied shall be recorded in the academic record for the transferred student, including grades, quarterly and cumulative averages throughout his studies at the university.
- e. The courses in which the student succeeded are equated according to the faculty's equivalency committee system.
- f. The transfer takes place at the times specified by the Deanship of Admission and Registration at the university.

Third: Transfer to another major within the College.

- a. With the approval of the Dean of the College, the student may transfer from one major to another within the College in accordance with the rules established by each department for the admission of his or her students.
- b. previously studied courses, including Semester and cumulative GPA and rates throughout the course of study at the university, are recognized in the academic record of a transferred student.
- c. Transfer requests take place at specified periods by the Deanship of Admission and Registration at the university.

Academic advising

The primary goal of an academic is to guide, direct and assist the student to overcome the difficulties encountered in his studies, and to provide advice on matters that affect the course of his education.

The goals of academic mentoring are as follows:

- 1- Preparing the new student to know university life through advisory programs and guidance to introduce the college, its deanship and support departments, and how the student can obtain its services and achieve the necessary adaptation to university studies.
- 2- Spread awareness of the academic regulations among students and help them understand study plans and regulations.
- 3- Encouraging outstanding students to achieve more and directing them towards investing their capabilities and potentials in areas that are compatible with their scientific interests and preferences.
- 4- Follow-up of the student who has failed in studies and help him acquire the necessary skills to increase his educational attainment.
- 5- Helping students choose the appropriate major after graduation, according to their potential, scientific interests, and labor market needs.

The Academic advisor

The college assigns for each group of students an academic advisor from the faculty, who shall perform the tasks of mentoring the student from the time he or she enters the College until his or her graduation in all the concerns relating to the basic objectives of academic advising in accordance with the university regulations. The Academic Guide also prepares a special file for each student containing all the necessary documentation for guidance. The principal purpose of academic advising is to aid the student, in planning your academic career. Successful academic advising occurs when you, your advisor and counselor work together as partners in seeking academic advisement prior to registering for classes is critically important.

Academic advising, and counseling is a service that offers students opportunities to learn much more than what courses they should take to complete a major. This includes advice about a wide array of matters related to students' choices of majors and courses, including appropriateness between those choices and students' career goals, further educational goals, and abilities.

Ultimately, responsibility for making decisions about your life goals and educational plans rests with you.

Advisor Responsibilities to the Student

- Your advisor will meet with you during the orientation to help you in your academic/ educational transition
- Your advisor will be prepared to meet with you within the first week to assist with schedule changes in the drop/add period when necessary.
- Your advisor will maintain a current file on your progress toward your major and degree requirements, commensurate with your goals and objects.
- Your advisor will post his office hours and adhere to them.

Student Responsibilities to the Advisor

- You have the responsibility to meet with your advisor during orientation.
- You have the responsibility to meet with your advisor within the first week of classes to open communication and adjust your schedule during the drop/add period when necessary.
- You are an active participant in the advisor/student relationship. As such, you will communicate concerns, needs, and problems to keep your advisor apprised.
- You are responsible to know course requirements for your major program.
- You are responsible to go to your advisor/counselor when you need him as a college informational source.
- You are responsible to know the office hours and location of your advisor
- You have the responsibility to maintain a personal advising file, which includes program requirements, advising notes, and other information disseminated.
- You are responsible to be knowledgeable about college policies, procedures, and regulations as well as program and graduation requirements. Sources of information include the college catalog and the Student Handbook.
- The student should maintain a high level of professionalism and respect towards his college advisor and university counselor.



Appendix

The grades earned by students in each course are reported and calculated as follows:

Grade	GPA		Grade Symbol	Arabic Symbol
Exceptional	4.00	5.00	A+	أ+
Excellent	3.75	4.75	A	أ
Superior	3.50	4.50	B+	ب+
Very Good	3.00	4.00	B	ب
Above Average	2.50	3.50	C+	ج+
Good	2.00	3.00	C	ج
High Pass	1.50	2.50	D+	د+
Pass	1.00	2.00	D	د
Fail	0	1.00	F	هـ
In-Progress	-	-	IP	م
In-Complete	-	-	IC	ل
Denial	0	1.00	DN	ح
No grade-Pass	-	-	NP	ند
No grade-Fail	-	-	NF	هد
Withdrawn	-	-	W	ع

Points	Grade	Grade symbol	Grade out of 5	Grade out of 4
95-100	Exceptional	A+	5.00	4.00
90 to less than 95	Excellent	A	4.75	3.75
85 to less than 90	Superior	B+	4.50	3.50
80 to less than 85	Very good	B	4.00	3.00
75 to less than 80	Above average	C+	3.50	2.50
70 to less than 75	Good	C	3.00	2.00
65 to less than 70	High Pass	D+	2.50	1.50
60 to less than 65	Pass	D	2.00	1.00
less than 60	Fail	F	1.00	0