جامعة الطائف
TAIF UNIVERSITY
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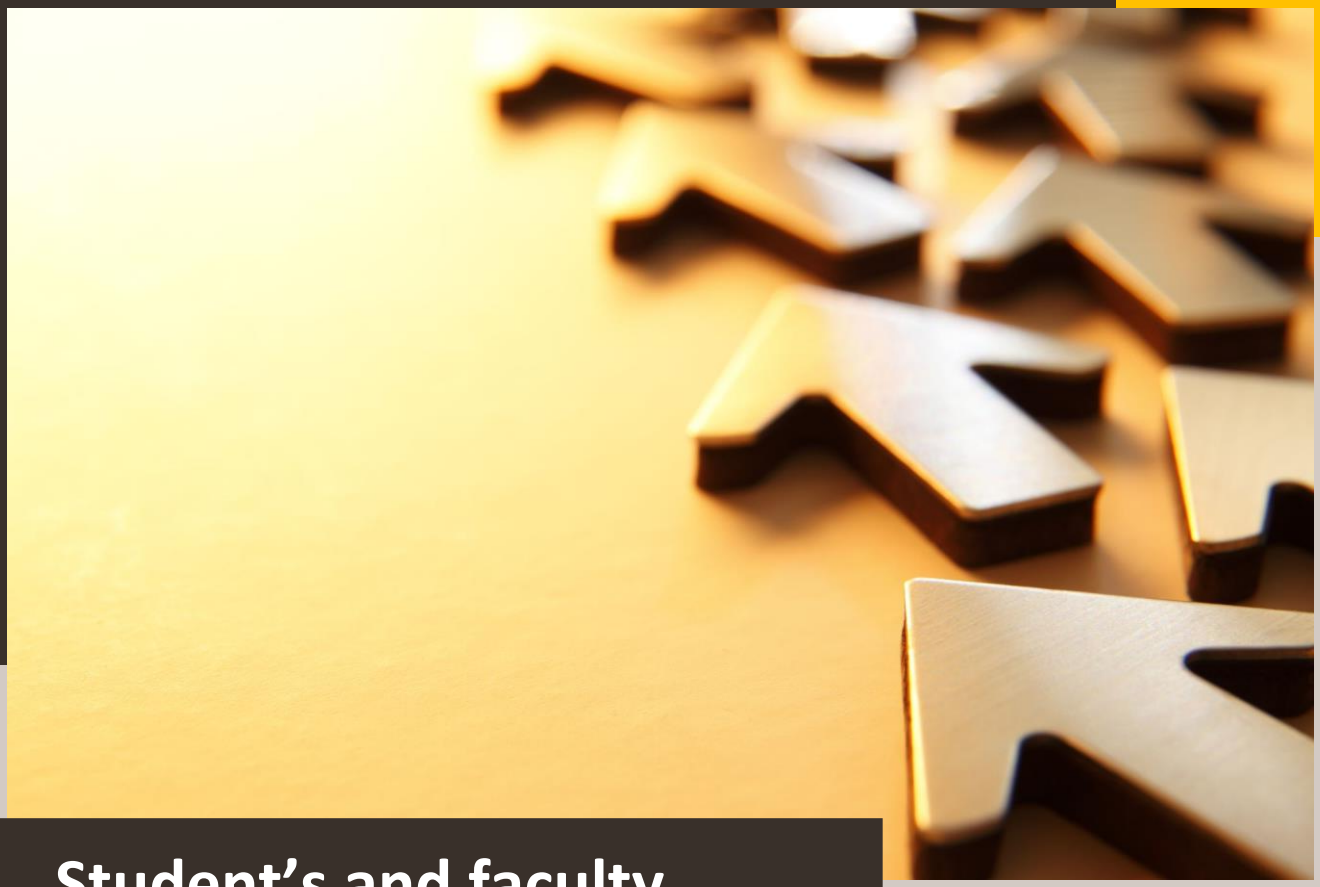

Student's and faculty members Academic Guide

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 College 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 College 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

Department's Vision	***Excellence in clinical laboratory sciences and contribution to community service***
Department's & 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, Immunology, clinical biochemistry, hematology, Transfusion medicine, and histopathology. The healthcare became one of the fastest growing industries in the Kingdom of Saudi Arabia. This program is the first of its kind in the Kingdom of Saudi Arabia and includes theoretical, practical and research modules. Modules were designed to insure highly qualified graduates to make valuable change in the health care system in Saudi. National needs and development The clinical laboratory sciences program aims to qualify national laboratory staff to: Employ and use the recent advancements in diagnostics techniques in clinical laboratories to diagnose diseases, understand the diseases pathogenesis and guide appropriate therapy. Conduct research to share in the development of effective health care system for providing an important evidence that health care providers and patients need to make the right medical decisions. Social and cultural Emphasizing high principles of character, sense of civic and ethical responsibility, and commitment to basic values of human life. Contributing to community service through distinguished research in the fields of clinical laboratory sciences. Economic, this program serves to create a job market for its nationals in several locations especially in hospitals, clinics, health centers. Keeping pace with the requirements of health development to bridge the gap between the requirements of the labor market and graduates of the master's program. Technological reasons. Applying recent diagnostic techniques

in different specialties by using the most recent and advanced equipment's. These diagnostics often provide quantitative measurements that update every step of care, prevention, detection, diagnosis, treatment and management of health conditions. 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 is required of all students before awarding the master's degree in clinical laboratory sciences.

Program Goals

To graduate competent clinical laboratory specialists who possess,

1. Preparation of laboratory specialists with an integral theoretical and practical background of the different sensitive diagnostics practices.
2. Formulation of competent laboratory specialists able of providing scientific and technical problem solving, and clinical reasoning, along with molecular data interpretation and analysis for patient care and science contribution.
3. Support the laboratory specialists to conduct different research work with contribution to the community services and to participate in developing the social awareness of the profession.

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. Understand fundamental and in-depth knowledge of the emerging concepts in different clinical laboratory sciences.
2. Recognize the range of specialized clinical laboratories related techniques and research methodologies.
3. Apply broad integrated concepts, disciplines and analytical workflow properly.
4. Practice methods of investigations, data interpretation and complex practical tasks relevant to the field of clinical laboratory sciences profession and research.
5. Adapt various digital technology for the assessment and support of data processing and research
6. Commit ethical, safety and documentation principles in clinical and research laboratories.
7. Adapt the ability of managing time and resources effectively for academic and professional self-development.
8. Collaborate with constructive knowledge and developed skills in the diagnosis of novel diseases, emerging disorders for the service of community health.
9. Lead divers teams to the responsibility of supporting sustainability of the laboratory operations and laboratory profession.

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

Molecular Diagnostic Techniques (48 HOURS)

	Course Code	Course Title	Required or Elective	Credit Hours
Level 1 1st Year Semester 1	373500-4	Principle of molecular and cellular biology	Required	4
	373501-3	Principles of Human genetics		3
	373503-2	Biostatistics and data interpretation		2
	373504-2	Advanced laboratory management and operation		2
Level 2 1st Year Semester 2	373505-2	Ethical considerations in molecular diagnosis	Required	2
	373506-4	Approaches to diagnosis and management of Molecular disorders		4
	373507-4	Molecular diagnostic practicum		4
	373508-2	Research Methods I: Building a Proposal		2

Level 3 2nd Year Semester 1	373509-2	Research Methods II: Implementation of Research Plan	Required	2
	373510-4	Molecular basis of disease I		4
	373520-2	Biomedical sciences applications		2
	373521-4	Introduction to bioinformatics and computational biology		4
Level 4 2nd Year Semester 2	373522-3	Student Project	Required	3
	373523-4	Molecular basis of disease II		4
	373524-2	Current developments in molecular diagnostics		2
	373525-4	Clinical practice		4

Study Plan

Applied cytology techniques (47 HOURS)				
	Course Code	**Course Title**	**Required or Elective**	**Credit Hours**
Level 1 **1st Year Semester 1**	373541-2	طرق البحث	Required	3
	373541-3	Principle of cytology		2
	373527-4	Gyne-cytopathology (1)		4
	373536-2	Anatomical Laboratory Quality Control Management		2
Level 2 **1st Year Semester 2**	373528-4	Pathophysiology for Cytopathology	Required	4
	373530-2	Body fluids preparation techniques		2
	373508-2	Research Methods I: Building a Proposal		2
	373529-4	Gyne-cytopathology (2)		4

Level 3 **2nd Year Semester 1**	373509-2	Research Methods II: Implementation of Research Plan	Required	2
	373533-4	Cytogenetic analysis		4
	373531-4	Advanced Histotechnology		4
	373537-4	Non-Gyne cytopathology-1		4
Level 4 **2nd Year Semester 2**	373522-3	Student Project	Required	3
	373538-4	Non-gyne-cytopathology (2)		4
	373539-3	Cytopathology clinical practicum (hospital training)		3

Study Plan

Diagnostics hematology (46 HOURS)

	Course Code	Course Title	Required or Elective	Credit Hours
Level 1 **1st Year Semester 1**	373500-4	Principles of Molecular & Cellular Biology	**Required**	4
	373503-2	Biostatistics and Data Interpretation		2
	373551-3	Research Methodology		3
	373504-2	Advanced Laboratory Management and Operation		2
Level 2 **1st Year Semester 2**	373543-4	Advanced Red Blood Disorders	**Required**	4
	373554-3	Advanced Automation in Hematology		3
	373544-4	Advanced White Blood Cells Disorders		4
	373508-2	Research Methods I: (Building a proposal)		2

Level 3 **2nd Year Semester 1**	373546-4	Advanced Hemostasis Disorders	**Required**	4
	373552-5	Approaches in diagnosis and Management of Blood Disorders		5
	373509-2	Research Methods II: Implementation of Research Plan		2
Level 4 **2nd Year Semester 2**	373553-4	Clinical Investigative Studies in Hematology	**Required**	4
	373525-4	Clinical Practice		4
	373522-3	Student project		3

Academic Year: Two regular semesters.

Academic Semester: A period of no less than fifteen (18-20) weeks of instruction, not including the registration and final examination periods.

Academic Level: In dictates the level of study. The levels required for graduation are four (4) 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

Guidelines & Financial requirements

Graduate studies website and portal

Please visit the portal for recent updates

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 participate 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:

رمز التقدير	نطاق الدرجة	وزن التقدير بالنقاط من (٤)	التقدير
أ+	٩٥-١٠٠	٤.٠٠	ممتاز مرتفع
أ	٩٠-٩٤	٣.٧٥	ممتاز
ب+	٨٥-٨٩	٣.٥٠	جيد جداً مرتفع
ب	٨٠-٨٤	٣.٠٠	جيد جداً
ج+	٧٥-٧٩	٢.٥٠	جيد مرتفع
هـ	أقل من ٧٥	٠.٠٠	راسب