Program Handbook

Department of Clinical Laboratory Sciences

Master of Science in Clinical Laboratory Sciences

Program

College of Applied Medical Sciences

Jouf University, KSA

[1445 A.H]

[2023 A.D]

1st version

IN THE NAME OF ALLĀH
THE MERCIFUL,
THE MERCY-GIVING

Table of contents

1. Purpose of This Handbook:

The department of Clinical Laboratory Sciences has developed the program Student Handbook to delineate the obligations of students, instructors, and staff, as well as to elucidate the policies and procedures governing graduate studies at the department. For information regarding the program, curriculum, and study plan for students, educators, and staff. This handbook is intended primarily for use of students admitted to the master program, but is not a comprehensive statement of all policies and procedures. Please keep this Handbook as a reference to which you can refer as needed.

2. About the department:

The department of Clinical Laboratory Sciences was established in the College of Science in Al-Jouf and began studying in it since 1424/1425 AH by offering Bachelor degree of Clinical Laboratory Sciences. Then, it was relocated with the College of Applied Medical Sciences after its inception, and the department aims to qualify trained Saudi cadres to carry out technical work in clinical, educational and research medical laboratories through academic programs that cover theoretical scientific aspects and practical aspects in the field of Clinical Laboratory Sciences. The application is included in courses that include: Anatomy, Histology, Pathology, Hematology, Tissue and Cell Pathology, Medical Biochemistry, Clinical Chemistry, Bacteriology, Mycology, Virology, Parasitology, Immunology, Medical Terminology, Public Health Cellular and Molecular Biology, Enzymology, Genetics, Genetic Engineering, Laboratory Management, Research Project and Safety. In addition to the Bachelor degree in the field of Clinical Laboratory Sciences, the department started offering the master degree in the Clinical Laboratory Sciences in the academic year 1445H. The department also aims to develop the laboratory technical work by holding training courses and workshops for specialist and laboratory technicians.

3. About the program:

The Master of Science in Clinical Laboratory Sciences program is located within the College of Applied Medical Sciences, under the department of Clinical Laboratory Sciences program, and is offered on the Jouf University main campus. The purpose of the master's program is to meet the increasing demand for laboratory specialists who are proficient in research skills and knowledgeable about the latest advancements in clinical laboratory sciences. The program comprises 36 credits, allocated as follows: 13 credits for general courses, 15 credits for specialized courses, and 8 credits for the thesis. The Master of Science in Clinical Laboratory Sciences is available with three primary specializations: Hematology, clinical microbiology, and clinical biochemistry. The program framework comprises coursework and a thesis. All students must complete the required courses, which are spread across various pathways. The Clinical Microbiology track comprises specialized courses focused on advanced knowledge and abilities in Bacteriology, Mycology, Parasitology, Virology, Antibiotics, and Microbial Resistance. There are specific courses in the clinical biochemistry track that cover advanced topics in endocrinology, enzymology, metabolic disorders that happen at birth, instrumentation and methodology, toxicology, and therapeutic drug monitoring. The master's program culminates with a thesis in the specialized track, under the supervision of a faculty member.

The general courses aim to provide students with a comprehensive understanding of pathophysiology, immunology, medical genetics, molecular diagnostics, biostatistics, seminars, and infection control. The haematology track comprises specialized courses focused on advanced knowledge and skills pertaining to problems of red blood cells, white blood cells, hemostatic disorders, and transfusion medicine. The Clinical Microbiology track comprises specialized courses focused on advanced knowledge and abilities in bacteriology, mycology, parasitology,

virology, antibiotics, and microbial resistance. There are specific courses in the clinical biochemistry track that cover advanced topics in endocrinology, enzymology, metabolic disorders that happen at birth, instrumentation and methodology, toxicology, and therapeutic drug monitoring. The master's program culminates with a thesis in the specialized track, under the supervision of a faculty member.

4. Program Vision:

Advancing competency in the field of clinical laboratory sciences nationally and regionally.

5. Program Mission:

Preparing highly qualified and skilled graduates to support education, scientific research, and community healthcare.

6. Program Goals:

1. Assuring high quality in teaching and training to prepare competent professionals in clinical laboratory sciences.

2. Providing graduates with the fundamental knowledge, values, and skills necessary for teaching and research.

3. Encouraging and preparing students in research skills to pursue PhD studies.

4. Graduating proficient clinical laboratory scientists to serve the community.

7. Program learning outcomes, teaching strategies, and assessment methods:

NQF Learning Domains and Learning Outcomes		Teaching Strategies	Assessment Methods
K	**Knowledge and Understanding:** Students/Graduates will be able to:-		
K1	Evaluate the theoretical and scientific principles of laboratory testing and result interpretation.	Interactive lectures, Blackboard activities, Class Discussion, Project Based Learning (PBL), Team-Based Learning.	Written exams, Quizzes and electronic exam by Blackboard (For research Project: Written Proposal - Literature Review – Participation in the project based on rubric).
K2	Recognize the normal organ functions and mechanisms of various pathological conditions.		
K3	Implement scientific research using the appropriate data recording methods.		
S	**Skills:** **Students/Graduates will be able to:-**		
S1	Apply advanced experiments and techniques in the major fields of clinical laboratory sciences.	Interactive lectures, Practical work, Lab demonstrations group discussions, case studies, group projects, field activities and blackboard.	Written exams, Practical exam, assignments evaluation, research report, case presentation, Lab reports, quizzes presentation, online reflection platform, Logbook, Oral exam, Practical evaluation Checklists, Blackboard.
S2	Analyze and interpret the complex clinical cases and different problems to produce reliable results.		
S3	Apply the research critique skills for defending research work		
S4	Evaluate the clinical laboratory research data in specialized clinical laboratory tracks.		
V	**Values, Autonomy, and Responsibility:** **Students/Graduates will be able to:-**		
V1	Show personal integrity, respect, honesty, and Islamic ethical behavior when dealing with patients, community members, and the healthcare team.	Practical work, Blackboard activities, Group projects, self-learning cooperative learning case studies, Clinical demonstration, Role play, Class Discussion, Research ethics, Project presentation.	Practical exam Checklists, Presentation, reports, class discussion Online (by Blackboard) discussion forums, Seminar Evaluation by Checklists, Portfolio, Checklists. (For Research Project: Continuous assessment of teamwork and collaboration in the final project, final project presentation, Examiners' evaluation of final project presentations based on rubric).
V2	Demonstrate leadership, collaboration, stress management, and team teamwork.		
V3	Outline the ethical principles and professional values in the medical field.		

8. Characters of program graduates:

- Committed to Islamic traditions and Saudi culture.
- Have the knowledge and skills needed to provide high quality health care services with reliable laboratory findings.
- Demonstrate professionalism through honesty, integrity and confidentiality of patient results.
- Demonstrate respect for the dignity and privacy of patients.
- Communicate effectively and inspire confidence with patients, colleagues, physicians, and other health care team members.
- Possess advanced knowledge in conducting scientific research.
- Contribute to the general wellbeing of community and respect the religious culture and social constants of society.

9. Fields of work for program graduates:

The Master of Science degree in Clinical Laboratory Sciences is intended to equip medical laboratory scientists for careers in research, education, or management within clinical laboratory sciences. Graduates of this program will secure research, teaching, and managerial roles in academia, clinical laboratories, and industry.

- **Professional Occupations/Jobs:**
    - Clinical lab scientists (First Specialist in a subspeciality of the lab).
    - Researcher
    - Teaching assistant and instructor
    - Lab manager and supervisor
- **-In fields of:**

- Hospitals and health centers.
- Research Centers.
- Education sector, institutes, and universities.
- Pharmaceutical companies.
- Health and governmental bodies.
- Local consultants to provide expertise to emerging health marketing organizations by working in the field of laboratory product development or technical support.
- Field of promotion, sales, devices, solutions, and laboratory supplies.
- Field of forensic sciences.

10. Conditions for admission to the program:

A. University admission requirements for a new student for postgraduate studies:

- The applicant must be Saudi or on an official scholarship for graduate studies if they are not Saudis.
- The applicant must have must hold a bachelor's degree in clinical laboratory sciences or its equivalent from a recognized Saudi university or an international accredited university.
- The applicant must provide equivalency of the qualification if obtained from outside the Kingdom of Saudi Arabia.
- The applicant must be medically fit, and individuals with disabilities (special needs) have the right to apply if they meet the following conditions:
    - The type of the applicant's disability and their health condition should not hinder their ability to practice and apply the necessary skills required to complete the program.

- The applicant should have the necessary means, aids, and technologies for communication and learning.

- The applicant must be of good conduct.
- The applicant must obtain the approval of his employer to study in the program if he is working for any governmental or private entity.
- The applicant must fulfill any other conditions determined by the University Council and announced at the time of application.
- The applicant should not be dismissed from another university for disciplinary reasons.
- It is not permissible to accept a student registered for another university degree or below, whether in the same university or another.

B. Conditions for admission to the program:

- The applicant must have must hold a bachelor's degree in Clinical Laboratory Sciences with a minimum GPA of good (2.75/5) from a recognized Saudi university or an international accredited university.
- The applicant must have must have completed one year of internship in Clinical Laboratory Sciences in a clinical training site.
- The applicant should provide two letters of recommendation from professors who taught them or from managers at workplace.
- The applicant must successfully pass any tests or personal interview that the department sees fit.
- The department board determine the number of seats available each semester (usually around 45 seats (15 students for each track) according to the capacity of labs and availability of supervisors.

- Placement of student in a specified tack is based on the available seats and the student's request and is done through the deanship of postgraduate studies and research.
- Full-time study as per schedule.
- The applicant must be able to distinguish between colors and must be mentally and physically healthy.
- Must be Saudi citizen
- The applicant must be able to communicate effectively in English and this determine by .

11. Study system in the program:

The study system (regularity) is the semester system, the program has four semesters.

A) Attendance:

The CLS department recognizes that the essacademic succ of individual students is related to their class attendance and participation.

- The student will not allow entering the final test if the percentage of his/her absence exceeds 25% of the total course credit hours without a valid excuse. Otherwise, he/she will not be allowed to appear in the final exam and fail the class.
- The student is considered as withdrawn if he/she does not register within three weeks from the start of the academic semester
- The student can apply for postponement of the study before the beginning of the semester with an acceptable excuse by the department council and approval by the college. However, the duration of the postponement is for two consecutive or three non-consecutive semesters.

B) Progress from level to level:

- The transition from the academic level to the next level takes place after passing the courses of each academic semester to the next level.

C) Completion of the program or graduation requirements:

- Graduation requirements after completing 36 credit hours according to the university and college regulations.
- The student graduates upon successfully completing the graduation requirements according to the program's plan, provided that their cumulative GPA does not fall below Very Good grade.

12. Duration Of study:

- The duration of the study is two years, divided into four semesters.
- The academic year divided into first and second term with duration of 15 weeks for each.
- A total of 36 credit hours are required for the completion of the degree.

13.Registration

Registration will be done through the Deanship of Graduate studies and Scientific Research. Newly admitted students should become familiar with the courses offered by their colleges, which should be based on their field of study. This will ensure that their course selection for each semester is in their best interest and as compatible with their capabilities as feasible. The Registration Department in the Deanship of Graduate studies and Scientific Research is responsible for the registration of newly accepted students for the first semester. After that, students are permitted to adjust their schedules (e.g., by adding or removing classes) within a specified timeframe.

At the commencement of each semester and within a designated timeframe, students of all levels will assume responsibility for enrolling in the courses they have selected. To enable students to register independently, they will be granted access to the electronic portal for academic affairs.

Students will have the opportunity to select options that will allow them to complete the registration procedure in the manner they prefer.

14. Registration Rules:

- Students will be able to select and register for the desire courses one week before the beginning of the semester before the first week.
- Students will be able to delete the courses he\she do not want to study according to the period Specified by university calendar.
- The registration must not exceed the maximum credit hours (12 credit hours) and the minimum credit hours (9 credit hours), that load can be specified student degree average for the previous academic year except in the fourth semester where thesis weighs 8 credits and it is the only course offered in the specified semester.
- The completion of registration for the courses shall be done after consultation with his/her academic advisor.

15.Registration Postponement (Deferral)

The Deanship of Graduate studies and Scientific Research may authorize the deferral of students' registration under the following circumstances:

- The student must have successfully completed a minimum of one semester in the program.
- The postponement period must not exceed three semesters.
- Requests for postponement should be submitted before the start of the semester according to the academic calendar.
- The Postponement Period will not be included in the maximum duration for degree completion.

16. Withdrawal From the program

Students who voluntarily resign from the program will be regarded as fresh candidates upon their decision to re-enroll. All updates regarding conditions will be implemented in their cases. Withdrawal is deemed effective upon compliance with the following regulations:

- The student must submit a withdrawal application to the Deanship of Graduate studies and Scientific Research prior to the initiation of final examinations.
- Withdrawal is not activated until seven days have passed from the date of submitting the request, and the student has the opportunity to reverse the decision to withdraw during this period.

17. Interruption of study

Students will be classified as dropouts and their records will be deemed closed under the following circumstances:

- If they were admitted into the program but failed to register punctually.
- If enrolled in the courses but did not attend.

18. Courses Transfer and Equivalency:

It is permissible to equate academic courses that a student has previously passed at a university or educational institution, whether within the Kingdom or abroad, provided that the institution is licensed by the relevant authority in the country of study. This is based on the recommendation of the department council and the approval of the college council. The courses that have been equated will be recorded in the student's academic record and counted towards the student's cumulative GPA, with the following conditions:

- The student's academic average should not be less than very good.

- The student should not be academically or disciplinarily dismissed.
- The student's grade in the equivalent units should not be less than very good.
- The student has not spent more than two academic years since studying the course to be equated.
- The description of the courses to be equated must match at least 70% of their counterparts in the program.
- The percentage of units (i.e., credits) shall not exceed 30% of the units (credits) of the program.
- The equivalence of courses is based on the recommendation of the department council and with the approval of the college council.

The student can be transferred to and from the Department of clinical Laboratory according to the following:

- The student should not spend more than four semesters out of the first year.
- The transfer procedures must be finished during the first week of the first semester.
- Transferring process will not allow unless the student spent at least one semester at his section.
- The student allowed transferring once during his/her university study.

19. Academic warning and dismissal of the program:

Good academic standing is defined as a cumulative GPA (CGPA) of 3.75 or above upon evaluation of academic standing at the end of first, second, third and fourth semesters. Students with a CGPA below 3.75 are no longer in good standing and the following will apply:

- The student will give an academic warning when his/her cumulative average is less than 3.75 out of 5.
- If the student receives three consecutive warnings, he/she considered academically dismissed until college council for him/her makes decision.
- If the cumulative GPA falls below the (Very Good) grade for two consecutive semesters.

Other potential causes for dismissal include, but are not limited to:

- If the student discontinues his/her studies.
- If it becomes evident that his/her acceptance is based on the submission of entirely or partially inaccurate information or documents.
- If the student does not obtain the academic degree within the specified duration of the program.
- If the student violates academic integrity, whether during his study of courses, in the preparation of his scientific thesis, or by breaching systems or regulations.
- If the committee evaluating the scientific thesis decides it is not eligible for defense or rejects it after the defense.

20. Re-enrollment:

The re-enrollment of a student whose registration has been canceled is permissible if there are circumstances preventing him from continuing his studies that are acceptable to the department and college councils. The re-enrollment is subject to a decision by the standing committee, taking into consideration the following:

- A student whose registration has been canceled for more than three academic years is treated as a new student in terms of retaking courses, disregarding any previous completion of the study phase.

- A student whose registration has been canceled for three academic years or less is required to retake certain courses determined by the department council and approved by the college council. The units completed after resuming studies are included in the cumulative GPA calculation. Additionally, the period the student spent in studying before the cancellation of registration is counted within the maximum duration allowed for obtaining the degree.

21.Program grading policy:

All final course grades for Program courses will be assigned based on the following scale:

No	Degree out of 100	Appreciation	Code	Degree out of 5	Degree out of 4
1	100-95	Excellent high	A+	5.0	4.0
2	94-90	Excellent	A	4.75	3.75
3	89-85	Very good high	B+	4.5	3.5
4	84-80	very good	B	4.0	3.0
5	79-75	Good high	C+	3.5	2.5
6	Less than 75	Failed	F	3.0	2.0

The final scores are letter grades. The final grades are available online via University Academic Portal within 24 hours of grades submission by the course instructor after the approval of Head department.

The general assessment of the cumulative average at the graduation of the student is based on his cumulative average as follows:

- **Excellent**: If the cumulative average is at least 4.50 out of 5.00 or 3.50 out of 4.00.
- **Very good**: if the cumulative average of 3.75 to less than 4.50 out of 5.00 or from 3.75 to less than 3.50 out of 4.00.
- **Good**: If the cumulative average of 2.75 to less than 3.75 out of 5.00 or from 1.75 to less than 2.75 out of 4.00

- **Acceptable**: If the cumulative average of 2.00 to less than 2.75 out of 5.00 or from 1.00 to less than 1.75 out of 4.00.

22. Program study Plan:

Level	Course Code	Course Title	Required or Elective	Credit Hours
Level 1 General	MCLS 611	Pathophysiology	Required	1
	MCLS 612	Molecular Diagnostics	Required	2
	MCLS 613	Advanced Immunology	Required	1
	MCLS 614	Medical Genetics	Required	1
	MCLS 615	Laboratory Management and Quality Assurance	Required	2
	TOTAL			**7**
Level 2 Medical Microbiology	MCLS 616	Advanced Biostatistics	Required	2
	MCLS 617	Seminar	Required	1
	MCLS 621	Medical Bacteriology	Required†	3
	MCLS 622	Medical Virology	Required†	2
	MCLS 623	Advanced Medical Parasitology	Required†	3
	TOTAL			**11**
Level 2 Hematology	MCLS 616	Advanced Biostatistics	Required	2
	MCLS 617	Seminar	Required	1
	MCLS 631	Red Blood Cell Disorders	Required††	3
	MCLS 632	Transfusion Medicine	Required††	3
	MCLS 633	Advanced Hemostasis	Required††	2
	TOTAL			**11**
Level 2 Clinical Chemistry	MCLS 616	Advanced Biostatistics	Required	2
	MCLS 617	Seminar	Required	1
	MCLS 641	In Born Error of Metabolism	Required†††	2
	MCLS 642	Advanced analytical techniques in clinical chemistry	Required†††	3
	MCLS 643	Clinical Endocrinology	Required†††	3
	TOTAL			**11**
Level 3 Medical Microbiology	MCLS 618	Scientific Research Methods	Required	1
	MCLS 619	Research Proposal specialized track	Required†	1
	MCLS 620	Infection Control and Prevention	Required	1
	MCLS 624	Antimicrobial Agents	Required†	2
	MCLS 625	Advanced Medical Mycology	Required†	2
	MCLS 626	Clinical Practice in Microbiology	Required†	3
	TOTAL			**10**
Level 3	MCLS 618	Scientific Research Methods	Required	1

Level	Course Code	Course Title	Required or Elective	Credit Hours
Hematology	MCLS 619	Research Proposal specialized track	Required†	1
	MCLS 620	Infection Control and Prevention	Required	1
	MCLS 634	Hematological Malignancies	Required††	4
	MCLS 635	Clinical Practice in Hematology	Required††	3
	TOTAL			**10**
Level 3 Clinical Chemistry	MCLS 618	Scientific Research Methods	Required	1
	MCLS 619	Research Proposal specialized track	Required†	1
	MCLS 620	Infection Control and Prevention	Required	1
	MCLS 644	Advanced Diagnostic Enzymology	Required†††	2
	MCLS 645	Toxicology and Therapeutic Drug Monitoring	Required†††	2
	MCLS 646	Clinical Practice in Clinical Chemistry	Required†††	3
	TOTAL			**10**
Level 4	MCLS 699	**Thesis**	Required	8
	TOTAL			**8**

23. Clinical practice:

Each track of the program has a clinical practice course where the student has the chance to visit affiliated clinical training centers to apply what

24. Regulations applicable to the program:

- The program depends on the regulations governing graduate studies - Jouf University published in website (attached website).
- The program depends on the Rules and Regulations for Graduate Studies in Universities from the Ministry of Higher Education (MOE) Council of Universities' Affairs Resolution No. (2/9/144)

- The program depends on the Standards for Postgraduate Programs Accreditation published by National Center for Academic Accreditation and Evaluation (NCAAA). See the web site(https://www.etec.gov.sa/en/service/accreditation/servicedocuments).
- The program depends on the rules governing the training of students during the internship training period - College of Applied Medical Sciences - Jouf University, as shown in the website.
- The program depends on the regulations for disciplining students at Jouf University, which are explained in the university website: https://www.ju.edu.sa.
- The program depends on the rules for accepting excuses for absence from lectures - Jouf University, which are published in the university website https://www.ju.ed.sa.
- The program depends on the controls for accepting excuses for absence from the final exams - Jouf University (rules for accepting students excuses).

25. Thesis registration process:

The students start a specialized track in the second level and conduct research in the same specialty. The student will submit a scientific research proposal with the guidance of a research supervisor in the third level for approval from the departmental council. The research thesis (8 credit hours) on the approved proposed topic will be completed in the fourth level under the same supervisor.

26. Scientific Supervision:

- The scientific supervisor is a PhD holder with research expertise in a particular specialty. A co-supervisor holding a master's degree may be assigned to guide the student in the laboratory experiments, if required. The students start working with the guidance of the supervisor, to who they must give monthly reports. The supervisor arranges and supervises

the research students, meeting at least twice per week, following and monitoring the research progress.

- The students submit a brief monthly progress report to the supervisor, and accordingly the supervisor evaluates his/her student every semester, using the university form (follow up form), which is provided by the deanship of graduate studies.

- The student will fail in the thesis course if he/she does not manage to finalize it within two semesters.

- If the student does not demonstrate a serious attitude regarding the thesis course, based on the Supervisor's report, the student will be warned by the department. If the student is warned twice and fails to provide adequate explanation for their conduct, their enrollment may be cancelled on the recommendation of the department and college councils.

27. Thesis defense / Examination:

- The thesis must be written in English language and its abstract should be written in both languages, Arabic and English.

- The students provide four copies of the thesis in hard binding to the department research committee for evaluation. The thesis is evaluated for plagiarism, scientific content, and general write-up. The student presents and defends his/her work to the supervisor and two other faculty members having expertise in that specialty. The supervisor evaluates the students for 50%, and the two other faculty members act as examiners who make 50% evaluation of the thesis and final presentation.

- Based on the recommendations of the Department and College Councils concerned, a Defense

- Committee is formed by the Department. The thesis debate and defense meeting should be held no later than one semester, starting from the date of the decision of the Department to form the defense committee.

- The Master's Thesis Defense Committee must fulfil the following conditions:

    - It must comprise an odd number of members, chaired by the thesis supervisor.

    - The Committee must include not less than three members. The supervisor and co-supervisor if any should not constitute a majority in the Committee.

    - The Committee members should meet the conditions of the thesis supervision.

    - At least one member of the Committee must be either a professor or an associate professor.

    - Decisions of the Committee should be based on a majority vote of at least two thirds of the total number of members.

- The thesis debate and defense must be conducted in the presence of the Head of Department or any on his behalf.

- If the main supervisor does not enable to contribute in the Thesis Defense Committee, the Department will point out a substitute (co-supervisor or any) for the approval by the College Council.

- After approval to form the thesis defense committee, the Dean of College should notify the external member of the committee, and a copy of the thesis is to be sent to the member.

- A report is prepared and signed by all members of the thesis committee. The report must be submitted to the Head of Department within one week of the date of the thesis defense. The report must include one of the following recommendations:

- 1. The thesis is accepted and recommended for the award of the degree.

- 2. The thesis is accepted with minor modifications, without a re-defense being necessary.

- A member of the committee is delegated to recommend awarding of the degree after ensuring that the required modifications are implemented within three months from the date of the thesis defense. This period can be extended by the College Council not exceeding 6 months.

- 3. The thesis is accepted with major modifications, followed by a second defense within a certain period of time to be decided by the College Council, based on the recommendations of the Department Council. This period must not exceed one year from the date of the first defense.

- 4. The thesis is rejected.

- Each committee member has the right to submit his own comments or reservations in a separate report in detial to the Head of Department within one week of the date of the defense which will be sent to the Dean of College with defense committee report.

- The Head of Department must submit the report of the Thesis Defense Committee to the deanship of Graduate Studies through the Dean of College within two weeks of the date of the defense. The Dean of Graduate Studies must submit the recommendations to award the degree to the University Board for approval.

- Upon successful defense, the students submit the four copies of the hard binding thesis with a printed title page. One copy is submitted to the research committee, one for the department head, one for the supervisor, and one copy is kept by the student.

28. Services provided to students of the program

The program aims to create an excellent academic environment for students and provides them with all elements of success. For instance, the program implements an advising policy, and ensures availably and accessibility of learning resources to the student and guides the students on how to utilize these services and resources in an effective manner.

A) Student advising and guidance:

- Each student is assigned an academic adviser. Typically, the adviser is a member of the faculty in the major department for the student's degree program.
- Academic advisors are available to provide guidance for course registrations. It is important that students complete the program coursework in a deliberate and systematic way to graduate on time.
- Encouraging student to meet with his academic advisor every semester before or during the registration week, with the aim of this meeting is to review the student's academic progress. This will be in an individual or group advisory meeting to discuss the study program or any problems that he may face in the study program.

- A follow-up schedule is made between the student and the academic advisor to hold periodic meetings to study the student's academic progress.
- The academic guides and counselors follow up the study schedules for students every semester and make sure that they are strictly committed to their approved study plans.
- Following up the defaulting students who face difficulty in pursuing their study plans, as well as the continuous care of the outstanding and talented students in the program.
- The program coordinator and faculty are available to advise students on program policy comprehension, academic issues, professional goals, or personal issues.
- The program is committed to impartiality and confidentiality of formal and informal information shared by students.

B) Learning resources:

- Providing the faculty member with a special form to list the course references for each of them with full information including, date of publication, ISPN, publishers and then providing students with references.
- Visit the university's central library to get acquainted with books and references related to students by the Learning Resources Committee.
- Requesting necessary references and books and subscribing to relevant international journals
- Review the current prospectus to update the books and references and submit it to the department.
- Participation in the university database, which provides access to most of the international publishing houses.

- Encouraging department members to write and translate books.
- Holding educational sessions on the mechanism of writing a report for students and urging faculty members to teach students in a scientific research method to avoid plagiarism.

C) Student activities:

The program encourages students to participate in different types of activities in order to enrich their skills and build up and develop their professional competency. These activities have different goals and aim to achieve specific targets as listed below:

- Encouraging male and female students to participate in the extra-curricular activities proposed by the college and department, which include seminars and workshops within the university.
- The participation of students in the sports and cultural activities and competitions held by the university.
- The participation of male and female students in the health and awareness services provided by the college and department to the community, such as participating in the celebration of the National Day and International Days for various health specialties, as well as blood donation campaigns, festivals, and events held in the region and awareness campaigns in schools in the area.

D) Classrooms, laboratories and equipment:

I. Classrooms:

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

II. Laboratories:

- The department has thirteen laboratories equipped with an internet network, an overhead projector, a smart board, a traditional blackboard and a display table.
- **According to the attached table:**

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

E) E-learning:

- The electronic learning system, which is Blackboard, which facilitates communication between teachers and students. The teacher can send the course curriculum, e-book, and other academic activities to his students through the blackboard. Students can also be evaluated by preparing all kinds of tests electronically.

29. Faculty members:

Male faculty members			
Name	**Position**	**Extension**	**EMAIL**
Dr. Abdallah Faleh Alsrhani	Dean Associate Professor	4000	afalserhani@ju.edu.sa
Dr. Fawaz Obaidullah Alenazy	Head Department Assistant Professor	4056	faenzy@ju.edu.sa
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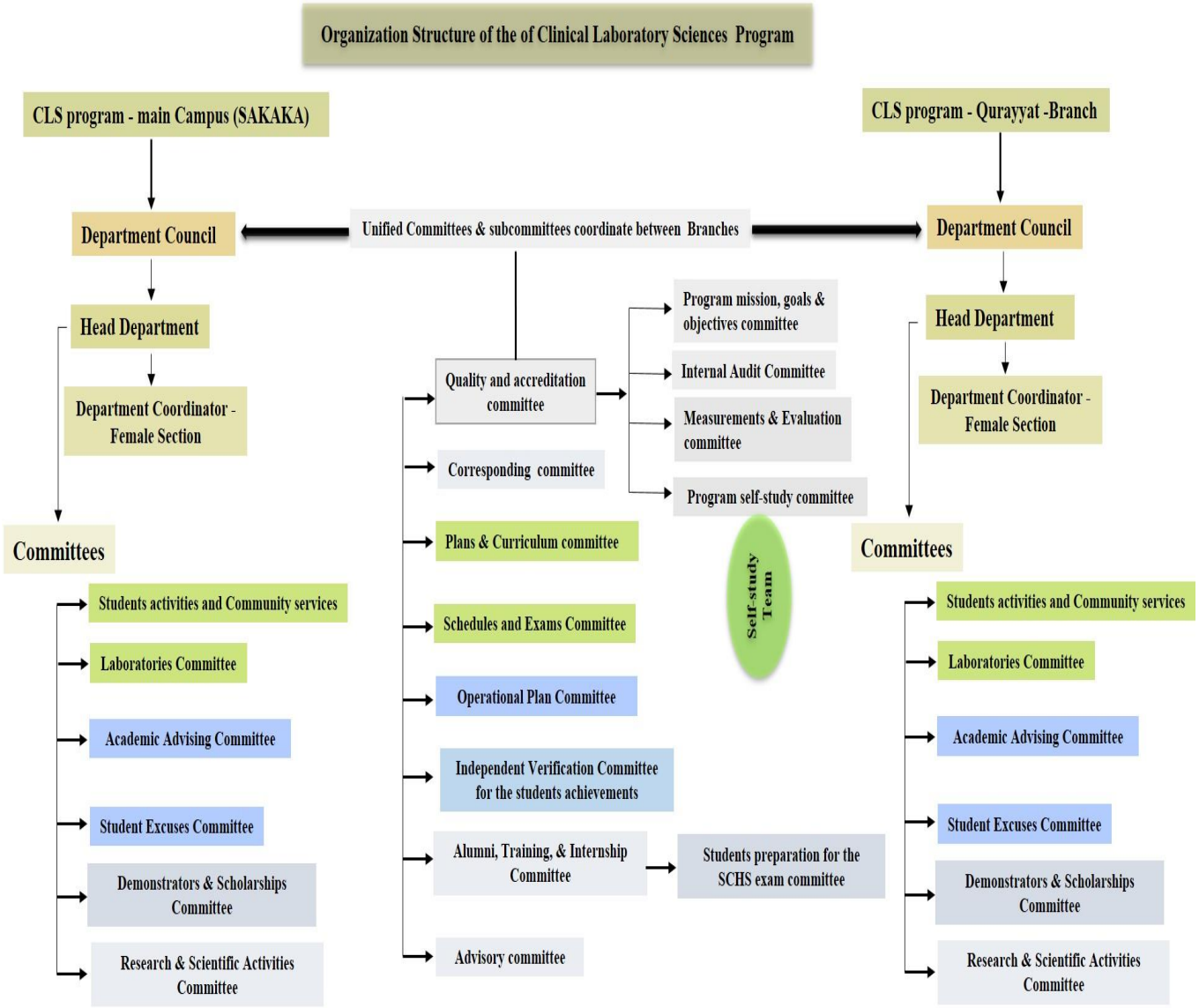
Council / Committee	**Departmental Council**
Reference No.	**7**
Date	**01\12\2023**

Appendix: 1: Organization Structure the Program Structure



Appendix: 2: Class Room

Appendix: 3: Laboratory

Appendix: 4: Extra-curricular activities