



Consistency with National Qualifications Framework — (Level 7 - Master's Degree or Equivalent).

Institution: Majmaah University

College/Institute: College of Applied Medical sciences

Qualification awarded (according to Graduation Certificate): **Master of Science in Clinical Laboratory Sciences (CLS)**

The NQF-KSA constitutes a comprehensive and uniform structure for building, organizing, and categorizing qualifications into levels based on learning outcomes. Furthermore, it is a functional tool to bridge recognized national or international qualifications; (Educational and Training), with the levels of the National Qualifications Framework in Saudi Arabia.

For further information, refer to the ([National Qualifications Framework](#)).

A. Qualification Details:

Institution:	Majmaah University (MU)	
College/Institute:	College of Applied Medical Sciences (CAMS)	
Program Qualification (according to the Graduation Certificate)	Master of Science in Clinical Laboratory Sciences (CLS)	
Qualification Name	<input checked="" type="checkbox"/> Master's degree with a thesis or project <input type="checkbox"/> Master's in course system <input type="checkbox"/> Professional Doctorate <input type="checkbox"/> Professional Master <input type="checkbox"/> Professional bachelor's degree	<input type="checkbox"/> Equivalent: (specify)
Area of specialization (According to Saudi Standard Classification of Educational Levels and Specializations)	Health and Welfare	
Qualification Type	<input checked="" type="checkbox"/> Academic <input type="checkbox"/> Vocational	<input type="checkbox"/> Applied <input type="checkbox"/> Technical
Qualifications Types by Dominoes:	<input checked="" type="checkbox"/> Primary Qualification <input type="checkbox"/> Additional Qualification	
Major track/pathway (if any)	<ul style="list-style-type: none"> • Biochemistry and Molecular Medicine • Microbiology and Immunology • Haematology and Blood Transfusion 	

(*) "Or equivalent" means qualifications that are equivalent to qualifications in terms of level, may have the same name, but their type varies (academic - research - professional - applied technology) or have another name, but they meet the requirements of the level.

B. Early Exit Points for Educational and Training Programs:

Intermediate Exit Point	<input type="checkbox"/> Available	<input checked="" type="checkbox"/> Unavailable
Description of the Early Exit Point in the Program	NA	
The Level of the Awarded Qualification	Level Seven	
Qualification Awarded at the Exit Point (According to Graduation Certificate)	NA	

Early Exit Points :Qualifications that mediate long-term educational or training programs, obtained by the learner or trainee from an awarding body if he or she achieves the target learning outcomes and the qualification placements required for a specific level. This awarded qualification does not correspond to the program's initial qualification it offers.



C. General Requirements for Qualification Placement

1. Official Approval

The awarding institution granted official approval from the relevant education or training authority.

Applicable

Not applicable

Link

2. Stakeholder Engagement

The qualified programs are designed and reviewed with the participation of Stakeholders, employers and field experts.

Applicable

Not applicable

3. Qualification Objectives

1. The students will be able to demonstrate a detailed knowledge of specific areas of medical microbiology, Biochemistry, haematology, immunology and molecular biology
2. The students will be able to assimilate this knowledge on diagnostic procedures and integrate it in the context of diagnostic clinical laboratory research areas.
3. The students will be able to independently design effective experiments and research strategies by conducting a research project; within a chosen area of clinical laboratory
4. The students will be able to develop ideas through the evaluation of appropriate literature, concepts and principles.
5. The students will be able to demonstrate problem-solving skills by analysing, judging, interpreting and critically evaluating biomedical data.
6. The students will be able to correctly perform quality control and assurance procedures.
7. The students will be able to competently perform advanced biomedical laboratory techniques in accordance with health and safety guidelines.
8. The students will be able to communicate effectively by means of oral, written and poster presentations, using print and electronic resources, reporting information, ideas and actions clearly, autonomously and competently.
9. The students will be able to demonstrate competence in the use of information technology.
10. The students will be able to apply Ethical and legal issues in biomedical science.
11. The students will be able to work effectively with a group as a leader or member, to produce team seminars.





4. Qualification Title

Master of Science in Clinical Laboratory Sciences

5. Qualification Components:

Item	Requirements according to NQF	Program	Level of Compliance (to be completed by NCAAA Consultant)
Minimum credit hours (units) required	Completion of a minimum of (180) credit hours (units) in higher education for Professional bachelor's degree or equivalent. or a minimum of (30) credit hours (units) for Master's or Professional Doctorate or equivalent. Completion of a minimum of (24) credit hours (units) of coursework in addition to at least (6) credit hours (units) for thesis for an academic Master's degree;	39 credit hours, which are delivered in the form of lectures, tutorials, and laboratories, and ending with successful defense of the master thesis in their chosen Track.	<input checked="" type="checkbox"/> The program meets the minimum of credit hours required.
Program duration (Minimum number of years)	- The study duration to obtain the qualification requires six (6) years or more of full-time studying or its equivalent. -The study duration to obtain the qualification is at least two academic years.	Two academic years	<input checked="" type="checkbox"/> The program meets the minimum duration required in years.
Minimum Actual (contact) hours	2700 contact hours for Professional bachelor's degree or equivalent. 450 contact hours for Master's or equivalent, and for Professional Doctorate or Equivalent. 360 contact hours for Master's degree or equivalent with a thesis or project.	786	<input checked="" type="checkbox"/> The program meets the minimum actual (contact) hours required.
Enrollment conditions (According to NQF)	- Obtaining a Secondary education qualification or equivalent. - Obtain a bachelor's degree or equivalent.	A bachelor's degree in medical laboratory sciences from Majmaah University or from any	<input checked="" type="checkbox"/> The Program meets the minimum requirements for students' enrolment at level 4 qualification.





other
National/International
university which has been
accredited by the Saudi
Ministry of Higher
Education

6. Learning Outcomes Assessment:

1. Learning Outcomes

Biochemistry and Molecular Medicine (After completing the study students will be able to..)

Code	Program Learning Outcomes (PLOs)	NQF Level Descriptors of Learning Outcomes – Level 7
1	Knowledge and understanding	
K1	Demonstrate a detailed knowledge of specific areas of Biochemistry and molecular biology	Deep and specialized body of knowledge and understanding covering theories, principles, and concepts in main areas of a discipline, profession, or field of work
K2	Understand the underlying principles and mechanisms of the diagnostic procedures to comprehend their significance in the context Biochemistry and molecular medicine.	Knowledge and accurate understanding of processes, materials, techniques, practices, conventions, and/or terminology relevant to a certain discipline, profession, or field of work.
2	Skills	
S1	Autonomously devise efficient experiments and research methodologies through the execution of a research project focused on their selected clinical laboratory domain Biochemistry and molecular medicine.	Conduct advanced research or professional projects using specialized research and inquiry methodologies in a discipline, profession, or field of work.
S2	Generate ideas by critically assessing pertinent literature, concepts, and principles.	Apply specialized theories, principles, and concepts in advanced contexts in a discipline, profession, or field of work.
S3	Exhibit problem-solving proficiency through the examination, assessment, interpretation, and critical appraisal of biomedical data	Solve problems in complex and advanced contexts in a discipline, profession, or field of work.
S4	Accurately execute quality control and assurance procedures	Critically assess, review, and reflect on key concepts, principles, and theories; and provide



Code	Program Learning Outcomes (PLOs)	NQF Level Descriptors of Learning Outcomes – Level 7
		creative solutions to current issues and problems in complex and advanced contexts, in a discipline, profession, or field of work.
S5	Proficiently conduct advanced biomedical laboratory techniques in strict adherence to health and safety guidelines.	Solve problems in complex and advanced contexts in a discipline, profession, or field of work
S6	Proficiently convey information, ideas, and actions through oral, written, and poster presentations, utilizing both print and electronic resources, to ensure clear, independent, and effective communication.	Select, use, and adapt advanced digital technological and ICT tools and applications to process and analyze a variety of data and information sets to support and advance leading research and/ or projects related to a discipline, professional practice, or field of work.
S7	Display proficiency in utilizing information technology.	
3	Values, Autonomy and Responsibility	
V1	Utilize ethical and legal considerations in the context of biomedical science.	Demonstrate integrity and professional and academic values when dealing with various issues.
V2	Collaborate efficiently as groups, whether in a leadership role or as a team member, to create and deliver group seminars	Effectively collaborate and participate in research or professional projects or groups, undertake leadership roles, and take high responsibility for the work





Microbiology and Immunology (After completing the study students will be able to..)

Code	Program Learning Outcomes (PLOs)	NQF Level Descriptors of Learning Outcomes – Level 7
1	Knowledge and understanding	
K1	Demonstrate a detailed knowledge of specific areas of medical microbiology and Immunology	Deep and specialized body of knowledge and understanding covering theories, principles, and concepts in main areas of a discipline, profession, or field of work
K2	Assimilate this knowledge on diagnostic procedures and integrate it in the context of diagnostic clinical laboratory research areas specifically implemented for Microbiology Laboratory.	Knowledge and accurate understanding of processes, materials, techniques, practices, conventions, and/or terminology relevant to a certain discipline, profession, or field of work.
2	Skills	
S1	Independently design effective experiments to detect and identify the specific microorganisms and research strategies by conducting a research project which includes the specific field of microbiology viz, antibiotics identification and selection against any infectious particles; within a chosen area of clinical laboratory.	Conduct advanced research or professional projects using specialized research and inquiry methodologies in a discipline, profession, or field of work.
S2	Develop ideas through the evaluation of appropriate literature, concepts and principles in the field of Microbiology and Immunology.	Apply specialized theories, principles, and concepts in advanced contexts in a discipline, profession, or field of work.
S3	Demonstrate problem-solving skills by analyzing, judging, interpreting and critically evaluating Microbiology data/ case studies.	Solve problems in complex and advanced contexts in a discipline, profession, or field of work.
S4	Correctly perform quality control and assurance procedures conducted in Microbiology laboratory.	Critically assess, review, and reflect on key concepts, principles, and theories; and provide creative solutions to current issues and problems in complex and advanced contexts, in a discipline, profession, or field of work.
S5	Competently perform advanced Microbiology	Solve problems in complex and advanced



Code	Program Learning Outcomes (PLOs)	NQF Level Descriptors of Learning Outcomes – Level 7
	laboratory techniques in accordance with health and safety guidelines.	contexts in a discipline, profession, or field of work
S6	Communicate effectively by means of oral, written and poster presentations, using print and electronic resources, reporting information, ideas and actions clearly, autonomously and competently.	Select, use, and adapt advanced digital technological and ICT tools and applications to process and analyze a variety of data and information sets to support and advance leading research and/ or projects related to a discipline, professional practice, or field of work.
S7	Demonstrate competence in the use of information technology in the field of Microbiology and Immunology.	
3	Values, Autonomy and Responsibility	
V1	Apply Ethical and legal issues in Microbiology Laboratory.	Demonstrate integrity and professional and academic values when dealing with various issues
V2	Work effectively with a group as a leader or member, to produce team seminars	Effectively collaborate and participate in research or professional projects or groups, undertake leadership roles, and take high responsibility for the work



Haematology and Blood Transfusion (After completing the study students will be able to..)

Code	Program Learning Outcomes (PLOs)	NQF Level Descriptors of Learning Outcomes – Level 7
1	Knowledge and understanding	
K1	Define the theoretical concepts of basic techniques used in diagnosis of blood related diseases	Deep and specialized body of knowledge and understanding covering theories, principles, and concepts in main areas of a discipline, profession, or field of work
K2	An ability to identify the principles of the diagnostic tests performed in Blood transfusion and hematology	Knowledge and accurate understanding of processes, materials, techniques, practices, conventions, and/or terminology relevant to a certain discipline, profession, or field of work.
2	Skills	
S1	Design effective experiments and research strategies by conducting a research project; within a chosen area of clinical laboratory	Conduct advanced research or professional projects using specialized research and inquiry methodologies in a discipline, profession, or field of work.
S2	Develop ideas through the evaluation of appropriate literature, concepts and principles.	Apply specialized theories, principles, and concepts in advanced contexts in a discipline, profession, or field of work.
S3	Demonstrate problem-solving skills by analyzing, judging, interpreting and critically evaluating biomedical data.	Solve problems in complex and advanced contexts in a discipline, profession, or field of work.
S4	Differentiate between diagnostic markers of different blood and transfusion related diseases	Critically assess, review, and reflect on key concepts, principles, and theories; and provide creative solutions to current issues and problems in complex and advanced contexts, in a discipline, profession, or field of work.
S5	Competently perform advanced biomedical laboratory techniques in accordance with health and safety guidelines.	Solve problems in complex and advanced contexts in a discipline, profession, or field of work
S6	Communicate effectively by means of oral, written and poster presentations, using print and	Select, use, and adapt advanced digital technological and ICT tools and applications to



Code	Program Learning Outcomes (PLOs)	NQF Level Descriptors of Learning Outcomes – Level 7
	electronic resources, reporting information, ideas and actions clearly, autonomously and competently.	process and analyze a variety of data and information sets to support and advance leading research and/ or projects related to a discipline, professional practice, or field of work.
S7	Demonstrate competence in the use of information technology	
3	Values, Autonomy and Responsibility	
V1	Apply Ethical and legal issues in biomedical science.	Demonstrate integrity and professional and academic values when dealing with various issues
V2	Work effectively with a group as a leader or member, to produce team seminars.	Effectively collaborate and participate in research or professional projects or groups, undertake leadership roles, and take high responsibility for the work

2. Learning Outcomes Assessment

Transparent and measurable evaluation criteria are implemented to ensure that Learning Outcomes have been achieved in the academic/training programs.	<input checked="" type="checkbox"/> Available	<input type="checkbox"/> Unavailable
PLOs Assessment Reports		

