Attachment 2 (a)

Kingdom of Saudi Arabia
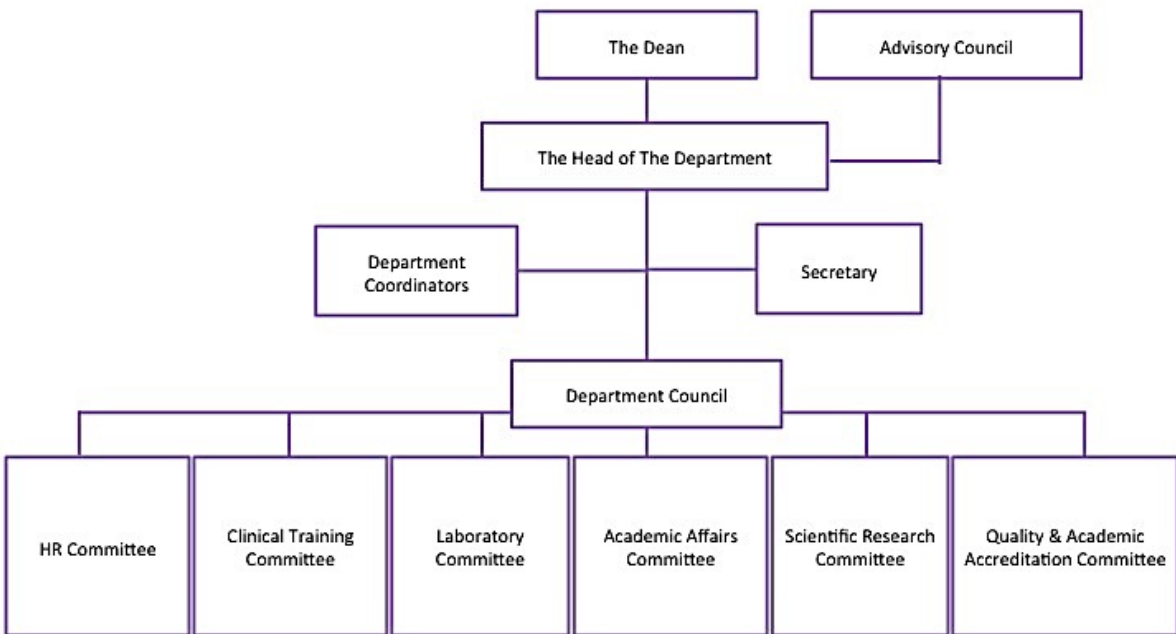
The National Commission for Academic Accreditation & Assessment

Program Specifications
(PS)

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Program Specifications

For guidance on the completion of this template, please refer to NCAAA guidebooks.

1. Institution : Majmaah University	Date of Report: 19 September 2014

2. College/Department Applied Medical Sciences / Medical Laboratory Sciences

3. Dean: Dr. Nasser Ali Aljarralah

4. Insert program administrative flowchart

5. List all branches/locations offering this program

   Branch/Location 1. Majmaah Male Campus

   Branch/Location 2. Majmaah Female Campus

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Branch/Location 3. Zulfi Male Campus

A. Program Identification and General Information

1. Program title and code: Medical Laboratory Sciences – MDL
2. Total credit hours needed for completion of the program: 134 Credit hours
3. Award granted on completion of the program: Bachelor of Applied Medical Sciences
4. Major tracks/pathways or specializations within the program (eg. transportation or structural engineering within a civil engineering program or counselling or school psychology within a psychology program) The program has only one major track which is the MDL Track
5. Intermediate Exit Points and Awards (if any) (eg. associate degree within a bachelor degree program) The program doesn't have any intermediate exit point
6. Professional occupations (licensed occupations, if any) for which graduates are prepared. (If there is an early exit point from the program (eg. diploma or associate degree) include professions or occupations at each exit point) Medical Laboratory Specialist

7. (a) New Program ☒ Planned starting date 1433 - 1434
 	
   (b) Continuing Program ☐ Year of most recent major program review
 	
   Organization involved in recent major review internal within the institution,
 	
   Accreditation review by: Deanship of Quality   Other: _____?

8. Name of program coordinator or chair. If a program coordinator or chair has been appointed for the female section as well as the male section, include names of both.
   - Dr. Ahmed Abdel-Hadi
   - Dr. Heaven Hannan

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والاعـتـمـــاد الأكـاديمـــي

Campus Branch/Location	Approval By	Date
Main Campus: Majmaah campus		
1: Majmaah Male Campus	Council of Higher Education	06/02/2007
2: Majmaah Female Campus	Council of Higher Education	06/02/2007
3: Zulfi Male Campus	Council of Higher Education	09/09/2005

9. Date of approval by the authorized body (MoHE for private institutions and Council of Higher Education for public institutions).

B. Program Context

1. Explain why the program was established.

a. Summarize economic reasons, social or cultural reasons, technological developments, national policy developments or other reasons.

The program was established to cater the community needs of professional and highly skilful specialists in the field of medical laboratory sciences for diagnosis and research services.

b. Explain the relevance of the program to the mission and goals of the institution.

The mission and goals of the program revolve around the provision of health and research services to the community and this is fully compatible with the mission and goals of the university, which is based on the provision of educational and research services.
(Attached the consistency forms No. 1, 2 and 3).

2. Relationship (if any) to other programs offered by the institution/college/department.

   a. Does this program offer courses that students in other programs are required to take? **Yes** ☐ **No** ☑

   If yes, what has been done to make sure those courses meet the needs of students in the other programs?

   b. Does the program require students to take courses taught by other departments? **Yes** ☑ **No** ☐

If yes, what has been done to make sure those courses in other departments meet the needs of students in this program?
- The course specification prepared by cooperation between the college departments
- Course reports is submitted to both departments

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والاعـتـمــاد الأكـاديـمــي

3. Do students who are likely to be enrolled in the program have any special needs or characteristics? (eg. Part time evening students, physical and academic disabilities, limited IT or language skills).

Yes ☐ **No** ■

4. What modifications or services are you providing for special needs applicants?

The programm does not provide any special need/services for applicants.

C. Mission, Goals and Objectives

1. Program Mission Statement (insert)

Qualifying outstanding cadres scientifically, practically and ethically in the field of medical laboratories, through an appropriate academic environment.

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والاعـتـمــاد الأكــاديمــي

2. List goals and objectives of the program within to help achieve the mission. For each goal and objective describe the major strategies to be followed and list the indicators that are used to measure achievement.

Goals and Objectives	Major Strategies	Measurable Indicators
Professional and highly skillful in the field of medical laboratory to provide diagnosis and research services.	Partnership with life science companies and with hospitals for training to acquire skills	The percentage of graduates who are within six months of graduation employed
Commitment to life-long learning and scientific research to solve health problems of the community	Encourage the student to use knowledge in solving problems among community.	Measure the number of research articles published
Commitment to the ethical and humane aspects of patient care	The students are always instructed and taught with ethical aspects while handling patients	Check the knowledge of student in human ethical points
Increase the awareness level among their population about local infectious and chronic diseases	Minor projects are the part of the curriculum, which help the student to study the local disease pattern and their prevention.	Examine the project report, which is submitted to the evaluation committee
Develop their leadership, communication skills and effectiveness work in team	Professional training in medical laboratory that is attached with major hospitals inside the kingdom as a model would help the student to develop their skills and leadership	Degree of satisfaction of employers for graduates and their skills

D. Program Structure and Organization

1. Program Description:

List the core and elective program courses offered each semester from preparatory year to graduation using the below Curriculum Study Plan Table (A separate table is required for each branch IF a given branch/location offers a different study plan).

A program or department manual should be available for students or other stakeholders and a copy of the information relating to this program should be attached to the program specification. This information should include required and elective courses, credit hour requirements and department/college and institution requirements, and details of courses to be taken in each year or semester.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

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الهيئـــة الوطنيـــة للتقويــم
والاعتـمـــاد الأكـاديـمــي

Curriculum Study Plan Table

Year	Course Code	Course Title	Required or Elective	Credit Hours	College or Department
1st Year (Preparatory Year) 29 Credits	PENG 111	English (1) for Preparatory Year	Required	8	Deanship of Preparatory year
	PMTH 112	Introduction to Mathematics (1)	Required	2	
	PCOM 113	Computer Skills	Required	2	
	PSSC 114	Learning and Communication Skills	Required	2	
	PENG 121	English (2) for Preparatory Year	Required	6	
	PENG 122	English for Medical Specialties	Required	2	
	PCHM 124	Introduction to Chemistry	Required	2	
	PPHS 125	Physics for Health Purposes	Required	2	
	PBIO 126	Biology Science	Required	3	
2nd Year Semester 1 17 Credits	MDL 231	Principles of Anatomy	Required	2	Department
	MDL 232	Principles of Physiology	Required	2	
	MDL 233	Organic Chemistry	Required	3	
	MDL 234	General Microbiology	Required	4	
	CAMS 231	Emergency Care	Required	2	College
	CAMS***	CAMS Elective Course	Elective	2	
	MU***	MU Elective Course	Elective	2	University
2nd Year Semester 2 18 Credits	MDL 241	Haematology	Required	3	Department
	MDL 242	Histology	Required	3	
	MDL 243	Medical Microbiology	Required	3	
	MDL 244	Introduction to Immunology	Required	2	
	MDL 245	Analytical Chemistry	Required	3	
	CAMS***	CAMS Elective Course	Elective	2	College
	MU***	MU Elective Course	Elective	2	University
3rd Year Semester 1 17 Credits	MDL 351	Principles of Biochemistry	Required	3	Department
	MDL 352	General Pathology	Required	3	
	MDL 353	Histotechnology	Required	3	
	MDL 354	Clinical Mycology	Required	3	
	MDL 355	Clinical Parasitology	Required	3	
	MU***	MU Elective Course	Elective	2	University
3rd Year Semester 2 17 Credits	MDL 361	Medical Biochemistry(lecture)	Required	3	Department
	MDL 362	Electron Microscopy(lecture)	Required	3	
	MDL 363	Clinical Bacteriology(lecture)	Required	3	
	MDL 364	Pathophysiology(lecture)	Required	3	
	MDL***	Program elective Course	Elective	3	
	MU***	MU Elective Course	Elective	2	University

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

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الهيئـــة الوطنيـــة للتقويــم
والاعـتـمــاد الأكـاديـمــي

4th Year Semester 1 **18 Credits**	MDL 471	Clinical Virology	Required	3	Department
	MDL 472	Epidemiology	Required	2	
	MDL 473	Clinical Immunology and Serology	Required	3	
	MDL 474	Clinical Biochemistry	Required	3	
	MDL 475	Search and Seminar	Required	2	
	MDL***	Program elective Course	Elective	3	
	MU***	MU Elective Course	Elective	2	University
4th Year Semester 2 **18 Credits**	MDL 481	Applied Clinical Microbiology	Required	3	Department
	MDL 482	Applied Clinical Biochemistry	Required	4	
	MDL 483	Analytical Laboratory Automation	Required	3	
	MDL 484	Applied Immunology and Haematology	Required	3	
	MDL 485	Cellular and Molecular Pathology	Required	3	
	MU***	MU Elective Course	Elective	2	University
Total Credit Hours				134	

MU Elective Course

SALM 101	Introduction to Islamic Culture	2	The student should study 3 / 4
SALM 102	Islam and Society Development	2	
SALM 103	Islamic Economic System	2	
SALM 104	Fundamentals of Islamic Politics	2	
ARAB 101	Arabic Language Skills	2	The student should study 1 / 2
ARAB 103	Arabic Editing	2	
ENG 101	English Language	2	The student should study 2 / 7
SOCI 101	Contemporary Societal Issues	2	
HAF 101	Fundamentals of Health and Physical Fitness	2	
ENT 101	Entrepreneurship	2	
LHR 101	Legislations and Human Rights	2	
FCH 101	Family and Childhood	2	
VOW 101	Voluntary Work	2	

CAMS Elective Course

CAMS 232	Medical Terminology	2	The student should study 2 / 3
CAMS 233	Biostatistics	2	
CAMS 234	Quality of Health Care	2	

MDL Elective Course

MDL 365	Health care system and occupational safety	3	The student should study 1 / 2
MDL 366	Laboratory Management	3	
MDL 476	Medical Genetics	3	The student should study 1 / 2
MDL 477	Diagnostic Molecular Biology	3	

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National Commission for
Academic Accreditation & Assessment

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والاعـتـمـاد الأكـاديـمــي

2. Required Field Experience Component (if any, e.g. internship, cooperative program, work experience).

Summary of practical, clinical or internship component required in the program.
Note: see Field Experience Specification

-   Internship is a 12 months comprehensive clinical training program for recent graduates to prepare them for high-quality service in the profession. The graduate shall have completed all academic requirements to qualify for internship program.
   -   The MDL internship components are:
      - Hospital & lab. Orientation   - Haematology
      - Sample receiving & processing area - Blood Bank
      - Microbiology & Parasitology   - Histopathology
      - Clinical biochemistry   - Diagnostic Molecular Laboratory
      - Immunology / Serology   - Lab. Management & quality control

a. Brief description of field experience activity
 	
During internship, the students are expected to lean the following skills:
   -   Acquire real work environment experience in terms of handling human samples, sophisticated instruments and patient handling.
   -   Processing of all blood samples and make it ready for required testing procedures.
   -   Get familiar with laboratory tests and their standard operating procedures.
   -   Developing the ability to troubleshooting and quality control assessment.
   -   Develop good communication skills with peers in the hospital laboratory.

b. At what stage or stages in the program does the field experience occur? End of 5th year of the program
c. Time allocation and scheduling arrangement. Interns are required to work a minimum of 8 hours a day, 5 days a week for 48 weeks, or follow affiliate hospital working hours
d. Number of credit hours No credit hours

3. Project or Research Requirements (if any)

Summary of any project or thesis requirements in the program. (Other than projects or assignments within individual courses) (A copy of the requirements for the project should be attached.)
a. Brief description NA
b. List the major intended learning outcomes of the project or research task. NA
c. At what stage or stages in the program is the project or research undertaken? (e.g. year, semester) NA
d. Number of credit hours (if any) NA

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكــة العربيــة السعوديــة
الهيئـــة الوطنيـــة للتقويـم
والاعـتـمــاد الأكـاديـمــي

e. Description of academic advising and support mechanisms for students.
NA
f. Description of assessment procedures (including mechanism for verification of standards)
NA

4. Learning Outcomes in Domains of Learning, Assessment Methods and Teaching Strategy

Program Learning Outcomes, Assessment Methods, and Teaching Strategy work together and are aligned. They are joined together as one, coherent, unity that collectively articulate a consistent agreement between student learning and teaching.

The *National Qualification Framework* provides five learning domains. Learning outcomes are required in the first four domains and sometimes are also required in the Psychomotor Domain.

On the table below are the five NQF Learning Domains, numbered in the left column. For Program Accreditation there are four learning outcomes required for knowledge and cognitive skills. The other three domains require at least two learning outcomes. Additional learning outcomes are suggested.

First, insert the suitable and measurable learning outcomes required in each of the learning domains (see suggestions below the table). **Second**, insert supporting teaching strategies that fit and align with the assessment methods and intended learning outcomes. **Third**, insert appropriate assessment methods that accurately measure and evaluate the learning outcome. Each program learning outcomes, assessment method, and teaching strategy ought to reasonably fit and flow together as an integrated learning and teaching process.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكــة العربيــة السعوديــة
الهيئــــة الوطنيــــة للتقويــم
والاعــتـمـــاد الأكـاديمــــي

	NQF Learning Domains and Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge**		
1.1	Establish a personal scientific knowledge base that prepares them to read, to interpret, and to utilize scientific knowledge in clinical practice.	lecture, debates, small group work, whole group and small group discussion, lab demonstrations, memorization,	Exams, portfolios, long and short essays, log books, analytical reports, group reports, lab reports, debates, peer evaluations, demonstrations, discussion forums, interviews,
1.2	Define the theoretical concepts of medical laboratory sciences used in conducting medical laboratory tests.		
1.3	Recognize the role of the clinical laboratory specialists in the assurance of quality health care.		
2.0	**Cognitive Skills**		
2.1	Proficiency to problem-solves, troubleshoot, recognize and interpret abnormal laboratory results and use statistical approaches when evaluating data.	Small group work, whole group and small group discussion, lab demonstrations, case studies, brainstorming, hands-on student learning activities.	Exams, portfolios, long and short essays, log books, analytical reports, case studies, video analysis, group reports, lab reports, peer evaluations, videos, graphs, tables, demonstrations, graphic organizers, interviews,
2.2	Exercise the principles of management and safety to include preventive and corrective maintenance of equipment as well as identify appropriate sources for repair.		
2.3	Execute quality control measures, and participate actively in quality assurance programs.		
3.0	**Interpersonal Skills & Responsibility**		
3.1	Display high standards of ethical practice including interactions with patients, peers and other health care personnel	Small group work, whole group and small group discussion, case studies, role playing, lab demonstrations, brainstorming, hands-on student learning activities	Exams, portfolios, analytical reports, individual and group presentations, case studies, video analysis, group reports, lab reports, debates, speeches, peer evaluations, self-evaluations, tables, demonstrations, graphic organizers, interviews,
3.2	Demonstrate leadership, team player, and the desire for continuing education for one's professional development.		
3.3	Demonstrate ability to handle stressful situations calmly and efficiently.		
4.0	**Communication, Information Technology, Numerical**		
4.1	Demonstrate effective communication with patients, laboratory personnel and other health care professionals.	Debates, whole group and small group discussion, lab demonstrations, role playing, individual presentation, hands-on student learning activities	Long and short essays, log books, analytical reports, individual and group presentations, group reports, lab reports, peer evaluations, videos, graphs, tables, graphic organizers, interviews,
4.2	Utilize computer technology applications to interact with computerized instruments and laboratory information systems		
5.0	**Psychomotor**		
5.1	Perform microscopic examination and analytical tests of cells, tissues, blood, body fluids, and other materials	Lab demonstrations, Case studies, hands-on student learning activities	Log books, analytical reports, case studies, video analysis, group reports, lab reports, peer evaluations, graphs, dramatic performances, tables, demonstrations, graphic organizers,
5.2	Establish proper procedures, for collecting, safe handling, processing, and analyzing human specimens to maintain accuracy and precision.		

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكـة العربيـة السعوديـة
الهيئـــة الوطنيـــة للتقويــم
والاعـتـمــاد الأكــاديمــي

NQF Learning Outcome Verb, Assessment, and Teaching Strategies and Suggestions

NQF Learning Domains	Suggested Verbs
Knowledge	list, name, record, define, label, outline, state, describe, recall, memorize, reproduce, recognize, record, tell, write
Cognitive Skills	estimate, explain, summarize, write, compare, contrast, diagram, subdivide, differentiate, criticize, calculate, analyze, compose, develop, create, prepare, reconstruct, reorganize, summarize, explain, predict, justify, rate, evaluate, plan, design, measure, judge, justify, interpret, appraise
Interpersonal Skills & Responsibility	demonstrate, judge, choose, illustrate, modify, show, use, appraise, evaluate, justify, analyze, question, and write
Communication, Information Technology, Numerical	demonstrate, calculate, illustrate, interpret, research, question, operate, appraise, evaluate, assess, and criticize
Psychomotor	demonstrate, show, illustrate, perform, dramatize, employ, manipulate, operate, prepare, produce, draw, diagram, examine, construct, assemble, experiment, and reconstruct

Suggested **_verbs not to use_** when writing measurable and assessable learning outcomes are as follows:

Consider	Maximize	Continue	Review	Ensure	Enlarge	Understand
Maintain	Reflect	Examine	Strengthen	Explore	Encourage	Deepen

Some of these verbs can be used if tied to specific actions or quantification.

Suggested assessment methods and teaching strategies are:

According to research and best practices, multiple and continuous assessment methods are required to verify student learning. Current trends incorporate a wide range of rubric assessment tools; including web-based student performance systems that apply rubrics, benchmarks, KPIs, and analysis. Rubrics are especially helpful for qualitative evaluation. Differentiated assessment strategies include: exams, portfolios, long and short essays, log books, analytical reports, individual and group presentations, posters, journals, case studies, lab manuals, video analysis, group reports, lab reports, debates, speeches, learning logs, peer evaluations, self-evaluations, videos, graphs, dramatic performances, tables, demonstrations, graphic organizers, discussion forums, interviews, learning contracts, antidotal notes, artwork, KWL charts, and concept mapping.

Differentiated teaching strategies should be selected to align with the curriculum taught, the needs of students, and the intended learning outcomes. Teaching methods include: lecture, debate, small group work, whole group and small group discussion, research activities, lab demonstrations, projects, debates, role playing, case studies, guest speakers, memorization, humor, individual presentation, brainstorming, and a wide variety of hands-on student learning activities.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكـة العربيـة السعوديـة
الهيئــة الوطنيــة للتقويــم
والاعـتـمــاد الأكـاديـمــي

Program Learning Outcome Mapping Matrix

Identify on the table below the courses that are required to teach the program learning outcomes. Insert the program learning outcomes, according to the level of instruction, from the above table below and indicate the courses and levels that are required to teach each one; use your program's course numbers across the top and the following level scale. Levels: I = Introduction   P = Proficient   A = Advanced

NQF Learning Domains and Learning Outcomes	PENG111	PMTH112	PCOM113	PSSC114	PENG121	PENG122	PCHM124	PPHS125	PBIO126	CAMS231	MDL231	MDL232	MDL233	MDL234	MDL241	MDL242	MDL243	MDL244	MDL245	MDL477	MDL351	MDL352	MDL353	MDL354	MDL355	MDL361	MDL362	MDL363	MDL364	MDL471	MDL472	MDL473	MDL474	MDL475	MDL481	MDL482	MDL483	MDL484	MDL485	MDL365	MDL476	MDL366
1.0 Knowledge																																										
1.1										I	I	I	I	I	P	P	I	I	P	I	I	P	P	P	P	A	-	P	A	-	A	A	P	A	P	-	-	P	A	P	A	P
1.2										-	-	I	-	I	P	-	P	I	-	-	I	I	-	P	-	I	P	P	P	-	P	-	-	P	-	-	A	A	-	A	-	-
1.3										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	A	P	-	-	A	A	A	-	-	-	P
2.0 Cognitive Skills																																										
2.1										I	-	-	-	-	P	P	I	I	P	P	P	P	-	P	P	P	P	P	P	-	-	A	A	A	A	P	-	A	P	-	A	P
2.2										I	-	-	I	I	-	P	-	I	-	P	-	-	P	P	-	-	P	-	-	-	-	A	P	-	-	-	-	-	-	-	-	-
2.3										-	-	-	-	-	-	-	-	-	I	-	-	-	-	-	-	-	-	P	P	-	-	-	-	P	-	-	-	A	-	-	-	-
3.0 Interpersonal Skills & Responsibility																																										
3.1										I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	-	P	-	-	P	-	-	P	-	-	P	A	-	-	P	P
3.2										-	I	I	-	-	-	P	-	I	-	-	-	-	P	-	P	-	-	P	-	P	P	-	P	A	-	P	-	-	-	-	P	-
3.3										I	-	-	I	-	-	-	-	P	-	-	-	-	-	P	-	P	-	P	-	-	-	-	-	-	A	A	-	-	P	-	-	-
4.0 Communication, Information Technology, Numerical																																										
4.1										-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	P	A	-	-	P	-	-	-	A	-	-	-	A	-	P	-	P
4.2										-	-	-	I	-	-	-	-	-	-	I	-	P	-	-	-	-	-	-	-	P	-	-	-	-	A	P	-	P	-	P	-	-
5.0 Psychomotor																																										
5.1										-	-	-	I	I	P	P	P	I	P	A	P	P	P	A	P	P	P	P	-	P	A	A	A	A	A	A	-	-	P	-
5.2										I	I	I	-	I	P	-	P	-	-	A	-	-	P	P	-	-	A	-	-	-	P	A	-	-	-	-	-	P	-	-	-

5. Admission Requirements for the program

Attach handbook or bulletin description of admission requirements including any course or experience prerequisites.

The admission process of all students of MU is performed mainly electronically via the E-Register electronic system. Electronic admission starts by student applying via the internet and ends by MU sending the acceptance letter and files of those who are accepted.

Major General Admission Requirements:

The following requirements have been stipulated for the admission of the new student:
- An applicant for admission must have a Saudi Secondary School Certificate -Science Section (SSSCSS) or its equivalent. The secondary school certificate should not be more than five years old and the Rector of the University may give exemption from this condition.
- Must have an Aptitude Test Certificate (ATC) administered by the National Center for Assessment in Higher Education.
- The minimum qualifying scores in SSSCSS & ATC tests are: A total equivalent percentage of 75% (based on 30% from the SSSCSS + 30% from the ATC + 40% from cumulative basic Science of SSSCSS).
- Must not have been dismissed from another university for disciplinary reasons.
- When applicants exceed availability, priority is given to the students with higher grades.

Distribution of Students among Various Fields of Applied Medical Sciences:

Before starting any program at CAMS, all students study a common preparatory year. After completing the preparatory period with a minimum GPA of **2.75/5**, the students are distributed to various programs of Applied Medical Sciences, so that they can start their designated program requirements in level three. The distribution process to the various programs at CAMS is carried out according to the interest of the students and the capacity of programs. When applicants exceed availability, priority is given to the students with higher grades. The final status of all students is then submitted to the Deanship of Admission and Registration within a pre-specified period each semester.

Registration Procedure:

The student is automatically registered at the beginning of each semester for a number of credit hours according to his academic standing. Students with GPA of 2.0 are eligible to register up to 14 credit hours, while those of 4.5 GPA or above are eligible for up to 20 units as a maximum. Students register online (through the E-Register system. All restrictions are programmed, however if the student needs to override any of these restriction he needs the approval of his advisor and sometimes the department head's approval.

Withdrawal:

The student has the right to withdraw from an academic semester within the withdrawal period announced in the academic calendar for that semester. No withdrawal is allowed during the last five weeks before the final examination. The college vice dean for academic affairs must approve the withdrawal request after reviewing the authenticity of the student's reasons for withdrawal.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

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6. Attendance and Completion Requirements

Attach handbook or bulletin description of requirements for:

a. Attendance.

Considering that regular course attendance is necessary for academic success, MU University requires that students should attend at least 75% of the lectures and practical. Students failing to meet this requirement in any of the courses will be prohibited from attending the final examination of that course and will have an F (Fail) grade in that course. Furthermore, the student who is absent in the final examination of a course(s) will not be given a substitute examination, except for a valid reason accepted by the college council.

b. Progression from year to year.

The MDL, similar to all other programs at MU, follows the semester system. Two semesters are offered in each academic year (each semester is called a level). The duration of each semester is fifteen weeks excluding examinations, in addition there is an optional 8-weeks summer semesters. The B.Sc. is a five and a half year program which consists of a three semester preparatory period at CAMS, six semesters in the MDL Program, and one year of internship after completion of the course work. MDL courses are seldom taught during summer semester. Teaching during summer is in fact administrated whenever faculty is available; at least 20 students are enrolled in the course or with at least one graduating student regardless of the number of students enrolled.

Examination and Grading System:

The examination and grading system of the program abides by the following regulations:

- Success in a course is usually based on the combination of a grade awarded for the course work, plus a grade for the final examination.
- Each course will have a total of 100 points, and these are distributed as follows: 60% for the course work (quizzes, assignments, homework, midterm exams, practical) and 40%for the final examination.
- The passing mark in each course is 60% out of the total.

The program grading system follows the requirements at MU which is based on a maximum of **5** as shown in the following.

Grading system at MU

Letter Grade	Numerical	Point Average
A+	95-100	5.0
A	90-less than 95	4.75
B+	85-less than 90	4.5
B	80-less than 85	4.0
C+	75-less than 80	3.5
C	70-less than 75	3.0
D+	65-less than 70	2.5
D	60-less than 65	2.0
F	Below 60	1.0

A student's grade point average is determined by dividing the cumulative point value of all courses attempted by the number of units in the student's semester schedule. An example is the following hypothetical student's report having five courses in a particular semester is shown in the following table:

Grade Point Average (an example)

Course	Credit Hours	Letter Grade	Point Average	Grade Point (Credit Hours × Point Average)
1	2	A	4.75	9.5
2	3	C	3	9
3	3	F	1	3
4	4	B+	4.5	18
5	3	D	2	6
Total	15			45.5

This student's semester grade point average GPA is (45.5/15) = 3.03. Similarly, for all the semesters taken, the Cumulative Grade Point Average (CGPA) is calculated.

The cumulative grade point value is translated into performance standing as shown in the following table:

Cumulative Grade Point Average

Grade Range	Standing
4.50 upwards	Excellent
3.75- 4.50	Very Good
2.75- 3.75	Good
2.00- 2.75	Pass
Less than 2.00	Fail

Scholastic Probation:

All students at MU University are required to maintain a grade point average of at least 2.0 out of 5.0. Those who fail to maintain this average are placed on scholastic probation and are given two semesters in which they must attain a GPA of 2.0. If this condition is not met within the two semesters of probation, the student may then be dismissed from his studies at the College of Applied Medical Sciences. One last opportunity of a third semester to raise the average can be given, after review of the academic record by the academic supervisor and approval of college council, to those who can attain the 2.0 GPA if they study 12 credit hours and score B average in all (48 points).
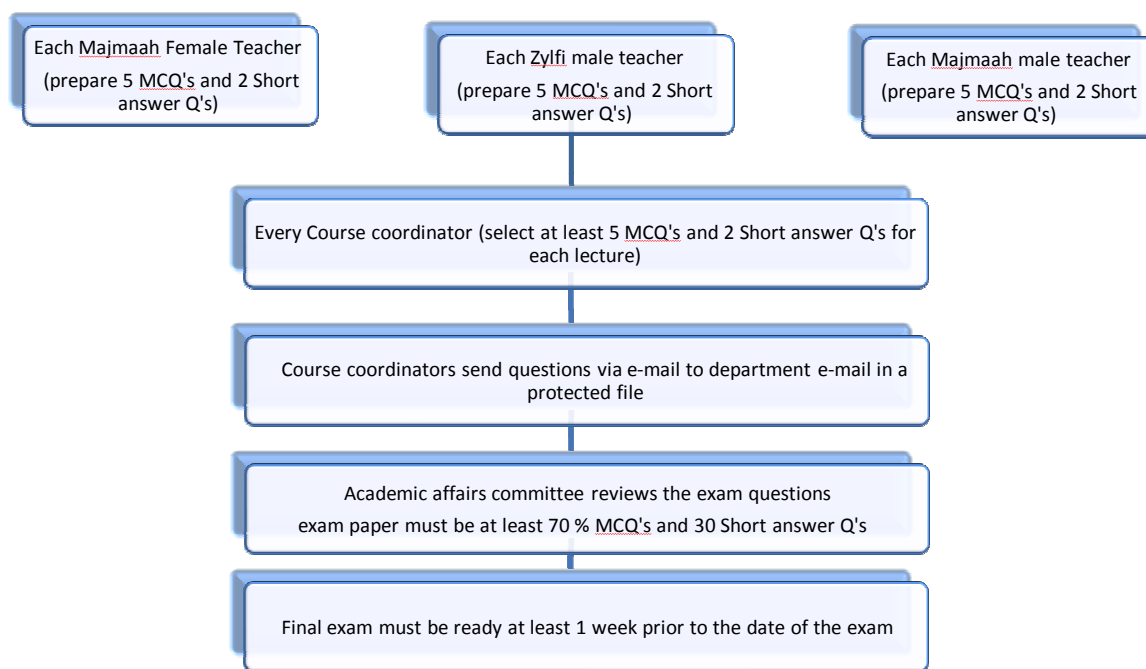
c. Program completion or graduation requirements.

To obtain the Bachelor's degree in Biomedical Equipment Technology, the student must successfully complete 140 credit hours (56 courses including the preparatory year courses). In order to ensure that the student completed the course work, the electronic system (EduGate) is available to both the student and program management for checking. After ensuring that a student has completed all the course work, the program management allows the student to start a one year (48 weeks, 0 credit hours) compulsory internship. After the student successfully completes the internship and after obtaining a release form from Deanship of Admission and Registration, he would be eligible for obtaining his Bachelor's degree certificate.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكــة العربيــة السعوديــة
الهيئــــة الوطنيــــة للتقـويـم
والاعـتـمـــاد الأكـاديـمـــي

E. Regulations for Student Assessment and Verification of Standards

What processes will be used for verifying standards of achievement (eg check marking of sample of tests or assignments? Independent assessment by faculty from another institution)   (Processes may vary for different courses or domains of learning.)

Students assessment tools are reviewed and approved by the department academic affairs committee in terms of achieving course learning outcomes and programme outcomes.

Each Majmaah Female Teacher (prepare 5 MCQ's and 2 Short answer Q's)	Each Zylfi male teacher (prepare 5 MCQ's and 2 Short answer Q's)	Each Majmaah male teacher (prepare 5 MCQ's and 2 Short answer Q's)

Every Course coordinator (select at least 5 MCQ's and 2 Short answer Q's for each lecture)

Course coordinators send questions via e-mail to department e-mail in a protected file

Academic affairs committee reviews the exam questions
exam paper must be at least 70 % MCQ's and 30 Short answer Q's

Final exam must be ready at least 1 week prior to the date of the exam

F Student Administration and Support

1. Student Academic Counselling

Describe the arrangements for academic counselling and advising for students, including both scheduling of faculty office hours and advising on program planning, subject selection and career planning (which might be available at college level).

The academic advisor is responsible for monitoring and guiding the student progress throughout his academic education. Each semester, MDL holds a meeting with students where the students and faculty exchange views and opinions regarding curricular, extracurricular and career matters. The students meet their academic advisor during the office hours. Each academic advisor must allot 10 hours per week as office hours, which can be used for addressing student issues through tutoring, mentor programs, etc.

2. Student Appeals

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National Commission for
Academic Accreditation & Assessment

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الهيئـــة الوطنيــة للتقـويــم
والاعـتـمـــاد الأكـاديـمــي

Attach the regulations for student appeals on academic matters, including processes for consideration of those appeals.

The students apeal regarding the attendance and withdrawal can be found in the following link
http://www.mu.edu.sa/en/deanships/deanship-admission-and-registration/attendance-and-withdrawal

The students medical and involuntary excuses guide is attached.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكـة العربيـة السعوديـة
الهيئــة الوطنيــة للتقويــم
والاعـتـمــاد الأكـاديـمــي

G. Learning Resources, Facilities and Equipment

1a. What processes are followed by faculty and teaching staff for planning and acquisition of textbooks, reference and other resource material including electronic and web based resources?

The University main library is located within the main campus building on the second floor. The Library contains a concentrated collection of medical laboratories books, journals, indexes, videos and computer software. The library staff is available for consultation on research projects and medical-related searches. MU has subscription to many of the periodicals related to the medical laboratories profession. In addition, of subscribing several Electronic Library full-text databases, the students and faculty members also have the access to Saudi digital library (SDL) http://sdl.edu.sa/SDLPortal/EN/Publishers.aspx

1b. What processes are followed by faculty and teaching staff for planning and acquisition resources for library, laboratories, and classrooms.

The students benefit from facilities provided by the college, and the University central library. Wireless internet access is installed at the college reaching all points of the college including staff and faculty offices and class rooms. All the students can access the wireless network using their ID number and their own password. The following college-wide and university-wide computing resources are available to staff and students:

Desire to Learn (D2L) Learning Management System (LMS): The E-learning and Distance Learning Deanship provides its LMS (D2L) to MU students and faculty through the link: http://el.mu.edu.sa/. D2L training courses are regularly offered in the College and at the Deanship of E-learning and Distance Learning. Once the faculty is logged in, he should be able to see all the courses allocated to him for the current semester.

EDUGATE (Electronic Academic Services System): The Deanship of Admission and Registration provides its academic services system (EDUGATE) to all the students and faculty through the link http://edugate.mu.edu.sa/mu/init. Through EduGate, students can register courses online; monitor their academic progress, view and print transcripts/grades, and more. Course instructors can, in turn, monitor their students' academic progress, insert grade and absences information for their students, and more.

2. What processes are followed by faculty and teaching staff for evaluating the adequacy of textbooks, reference and other resource provisions?

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكــة العربيــة السعوديــة
الهيئـــة الوطنيـــة للتقويـــم
والاعـتـمـــاد الأكـاديـمـــي

All the modules of the program has specific learning objectives that are aligned with the program outcome. Course Specifications specifies the general objectives of the module and the intended learning outcomes.

3. What processes are followed by students for evaluating the adequacy of textbooks, reference and other resource provisions?

Students can leave their feedbacks in the edugate system, which can be evaluated by the Academic affairs periodically. Based on the student's feedback, the adequacy of teaching material and resource provisions are reviewed and implemented.

4. What processes are followed for textbook acquisition and approval?

Textbooks and references are available at the University central library. Acquisition of textbooks will be made by the University central library upon college request.

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكــة العربيــة السعوديــة
الهيئـــة الوطنيـــة للتقويـــم
والاعـتـمـــاد الأكـاديـمـــي

H. Faculty and other Teaching Staff

1. Appointments

Summarize the process of employment of new faculty and teaching staff to ensure that they are appropriately qualified and experienced for their teaching responsibilities.

For Saudi staff
The department usually studies the need for recruiting new teaching staff every year. Decisions and recommendations are then reported to the university-wide Deanship of Faculty and Staff Affairs through the Dean of the College. Vacant positions are publicly advertised at the University website, local newspapers, as well as in international newspapers and job portals. Appropriate applicants (how are they selected?) will be interviewed by a selected panel includes three academics. The interview undergoes specific evaluation criteria. For example, the applicants are being evaluated on their communication skills, self-confidence, general knowledge, and scientific knowledge. The applicant has to achieve at least 75 % of the criteria to be eligible for the position.
For non-Saudi staff
Available positions are advertised by the Cultural Attaches in the approved countries and the University website. Applicants are interviewed by a selected panel. After checking and evaluating the applicants documents, the panel will give initial contract offer to the successful nominees. When the applicant accept the offer, the University send visas to the Cultural Attachés. Upon arrival to the University, the new staff will sign the final contract.

2. Participation in Program Planning, Monitoring and Review

a. Explain the process for consultation with and involvement of teaching staff in monitoring program quality, annual review and planning for improvement.
The department has a quality committee, which periodically meet and check the consistency and quality of the program by monitoring and reviewing the course reports and outcomes.

b. Explain the process of the Advisory Committee (if applicable)
The Advisory committee meets at least once per year and discuss about the course outcome, student performance, faculty development and performance etc. The committee is responsible to present the recommendations and suggestions based on the above criteria to the department council meeting headed by the Head of the Department.

3. Professional; Development

What arrangements are made for professional development of faculty and teaching staff for:

a. Improvement of skills in teaching and student assessment?

All College staff are encouraged to regularly attend training and professional development

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

المملكــة العربيــة السعوديــة
الهيئـــة الوطنيـــة للتقويـم
والاعـتـمـــاد الأكـاديمـــي

workshops held either within the University, or at other national and international institutions. Career and personal development programs at the University provide opportunities to build productive and satisfying careers while contributing to the achievement of the University's mission. The University has established a Deanship for Quality and Skills Development that plays a major role not only in organizing the workshops and seminars, but also in identifying the staff needs and setting strategies to meet those needs.

b. Other professional development including knowledge of research and developments in their field of teaching specialty?
Staff members are entitled to attend national and international conferences, symposia and workshops. Faculty members are given financial support for transportation, conference/workshop registration fees and living allowance for the event duration. The College has a policy to reward its staff on their outstanding academic, technical and administrative performance. Such rewards might be financial support or make an announcement in the University website about the staff outstanding performances.

4. Preparation of New Faculty and Teaching Staff

Describe the process used for orientation and induction of new, visiting or part time teaching staff to ensure full understanding of the program and the role of the course(s) they teach as components within it.
Each year, at the beginning of the first semester, the college arranges orientation and induction programm for the new full time faculties.

5. Part Time and Visiting Faculty and Teaching Staff

Provide a summary of Program/Department/College/institution policy on appointment of part time and visiting teaching staff. (ie. Approvals required, selection process, proportion to total teaching staff, etc.)

Towards the end of each academic year, departments are required to submit a request that outlines the additional staffing needs of the department. This request is discussed in College council meeting and then process the request to University Vice Dean for Academic and Educational Affairs.

I. Program Evaluation and Improvement Processes

Kingdom of Saudi Arabia
National Commission for
Academic Accreditation & Assessment

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والاعـتــمــاد الأكــاديــمــي

1. Effectiveness of Teaching

a. What processes are used to evaluate and improve the strategies for developing learning outcomes in the different domains of learning? (eg. assessment of learning achieved, advice on consistency with learning theory for different types of learning, assessment of understanding and skill of teaching staff in using different strategies) All the modules of the program have specific learning objectives that are aligned with the program outcome. Course specifications specifies the general objectives of the module and the intended learning outcomes. All modules in the Program specify 4-8 specific outcomes, which are evaluated by formative and summative assessment methods. Both direct and indirect assessment techniques are utilized to ensure that the desired program outcomes are achieved. The process of assessment is carried out by using a combination of formal, predetermined exams, and year-through assessment strategies such as quizzes, short exams, presentations, assignments, and classroom discussions. Each assessment aims at assessing one or more of the module learning outcomes.
b. What processes are used for evaluating the skills of faculty and teaching staff in using the planned strategies? Based on the students feedbacks and the report from the Head of the Department, the strategy of improving the faculty development is planned and achieved.

2. Overall Program Evaluation

a. What strategies are used in the program for obtaining assessments of the overall quality of the program and achievement of its intended learning outcomes:
(i) From current students and graduates of the program? - Online surveys for teacher evaluation courses - Alumni surveys - Students and graduates periodically evaluate the program electronically using the surveys on quality deanship site.
(ii) From independent advisors and/or evaluator(s)? - Advisory comity - External evaluator - NCAAA - College international consultant.
(iii) From employers and/or other stakeholders. Feedback from employers, preceptors, etc are sought regularly to improve the program, In addition, the college had established a Advisory council, some of stakeholders in various pharmacy practice areas are members of this council.

Complete the following two tables.

Kingdom of Saudi Arabia
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Academic Accreditation & Assessment

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والاعـتـمـــاد الأكـاديـمــي

1. **Program KPI and Assessment Table**

2. **Program Action Plan Table**

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National Commission for
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الهيئــة الوطنيــة للتقويـــم
والاعـــتـــمــاد الأكــاديـــمـــي

Program KPI and Assessment Table

KPI #	List of Program KPIs Approved by the Institution	KPI Target Benchmark	KPI Actual Benchmark	KPI Internal Benchmarks	KPI External Benchmarks	KPI Analysis	KPI New Target Benchmark
1							
2							
3							
4							
5							
6							
Analysis of KPIs and Benchmarks: (list strengths and recommendations)							

NOTE The following definitions are provided to guide the completion of the above table for Program KPI and Assessment.

KPI refers to the key performance indicators the programs used in the SSRP and are approved by the institution (if applicable at this time). This includes both the NCAAA suggested KPIs chosen and all additional KPIs determined by the program (including 50% of the NCAAA suggested KPIs and all others).
Target Benchmark refers to the anticipated or desired outcome (goal or aim) for each KPI.
Actual Benchmark refers to the actual outcome determined when the KPI is measured or calculated.
Internal Benchmarks refer to comparable benchmarks (actual benchmarks) from inside the program (like data results from previous years or data results from other departments within the same college).
External Benchmarks refer to comparable benchmarks (actual benchmarks) from similar programs that are outside the program (like from similar programs that are national or international).
KPI Analysis refers to a comparison and contrast of the benchmarks to determine strengths and recommendations for improvement.
New Target Benchmark refers to the establishment of a new anticipated or desired outcome for the KPI that is based on the KPI analysis.

Kingdom of Saudi Arabia
National Commission for
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والاعـتـمــاد الأكــاديـمــي

Program Action Plan Table

Directions: Based on your "*Analysis of KPIs and Benchmarks*" provided in the above Program KPI and Assessment Table, list the recommendations identified below.

No.	Recommendations	Action Points	Assessment Criteria	Responsible Person	Start Date	Completion Date
1						
2						
3						
4						
5						
6						

Action Plan Analysis (List the strengths and recommendations for improvement of the Program Action Plan).

Kingdom of Saudi Arabia
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والاعـتـمـاد الأكـاديـمــي

Attachments:

1. Copies of regulations and other documents referred to in template preceded by a table of contents.

2. Course specifications for all courses including field experience specification if applicable.

Authorized Signatures

Dean / Program Chair	Name	Title	Signature	Date
Program Dean or Chair of Board of Trustees Main Campus				
Vice Rector				