Program Specification

(Bachelor)

Program: Bachelor of Radiological Sciences and Medical Imaging
Program Code (as per Saudi university ranking): 6/09140701
Qualification Level: Level 6 - NQF
Department: Radiological Sciences and Medical Imaging
College: College of applied medical sciences
Institution:Majmaah University
Program Specification:New ☐updated* ☒
Last Review Date:23-02-1444

*Attach the previous version of the Program Specification.

Table of Contents

A. Program Identification and General Information

1. Program'sMain Location:

Majmaah University (main campus)

2. Branches Offering the Program (if any):

NA

3. Partnerships with other parties (if any) and the nature of each:

NA

4. Professions/jobs for which students are qualified

- **Radiation Therapist**
- **Computed Tomography Specialist**
- **Magnetic Resonance Imaging Specialist**
- **Ultrasound Specialist**
- **Nuclear Medicine Specialist**
- **Faculty member**
- **Research scientist**

5. Relevant occupational/ Professional sectors:

Hospitals, Private Diagnostic departments, Research Centers, Centers for medical diagnosis

6. Major Tracks/Pathways (if any):

Major track/pathway		Credit hours (For each track)	Professions/jobs (For each track)
1.	Computed Tomography (CT)	12	(CT) Specialist
2.	Magnetic Resonance Imaging (MRI)	12	(MRI) Specialist
3.	Ultrasound (US)	12	(US) Specialist
4.	Nuclear medicine (NM)	12	(NM) Specialist
5.	Radiation Therapy (RT)	12	(RT) Specialist

7. Exit Points/Awarded Degree (if any):

Exit points/awarded degree	Credit hours
1. NA	

8. Total credit hours: 141

B. Mission, Objectives, and Program Learning Outcomes

1. Program Mission:

To build advanced academic skills in radiological sciences, including scientific Research, technical, and behavioral competences, in order to graduate individuals who are highly skilled and qualified. Additionally, to contribute to the community through the provision of advanced services within an innovative academic setting.

2. Program Goals:

- To provide talented specialists in radiological sciences through an academically advanced environment.
- To prepare qualified and updated graduates who follow up the most advanced technology in the field of Radiological Sciences.
- To become successful technical advisors and managers in order to develop scientific research related to the radiological field.
- To participate in life-long learning and become successful educators for healthcare community through higher education and continual professional development.

3. Program Learning Outcomes*

Knowledge and Understanding	
K1	To describe patient positioning and anatomical structures radiographically techniques via research aspect solutions in societal and global context.
K2	To explain problems-and solutions associate with critical-thinking skills in the performance of medical imaging procedures
K3	To choose suitable ionizing radiation.
K4	To explain problems via critical thinking in medical imaging procedures and conclude the solutions
Skills	
S1	To produce diagnostic images and able to create conclusions.
S2	To select exposure factors considering radiation protection laws for the patients, competent and workers. Recognizing emergency patient conditions and, if necessary, initiating lifesaving first aid.
S3	To interpret an appropriate information and communications technology in gathering, and communicating medical images performance and reconstruction
S4	To use standard tests and measurements, to evaluate data and to apply patient care radiological procedures effectively
Values, Autonomy, and Responsibility	
V1	To demonstrate expected professional behavior within the profession's scope of practice and function effectively as a leader or member of the team
V2	To demonstrate and enhance competence in written, oral, and graphical communication across diverse technical and non-technical settings.
V3	To promote a positive learning environment for the education and clinical skills development in the field of radiology

* Add a table for each track or exit Point (if any)

C. Curriculum

1. Curriculum Structure

Program Structure	Required/ Elective	No. of courses	Credit Hours	Percentage
Institution Requirements	Required	9	29	20.6
	Elective	6	12	8.5
College Requirements	Required	1	2	1.4
	Elective	2	4	2.8
Program Requirements	Required	46	82	58.2
	Elective	6	12	8.5
Capstone Course/Project				
Field Training/ Internship				
Residency year				
Others				
Total		61	141	100

* Add a separated table for each track (if any).

2. Program Courses

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 1	PENG 111	English (1) for Preparatory Year	Required		8	First common year
	PMTH 112	Introduction to Mathematics (1)	Required		2	
	PCOM 113	Computer Skills	Required		2	
	PSSC 114	Learning and Communication Skills	Required		2	
Level 2	PENG 121	English (2) for Preparatory Year	Required		6	First common year
	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	
Level 3	RMI232	Principles of Anatomy	Required		2	Department
	RMI233	Introduction to Medical Imaging.	Required		2	

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
	RMI234	Radiation Protection & Biology	Required		2	
	RMI235	Radiation Physics and Equipment	Required		3	
	RMI237	Principles of Physiology	Required		2	
	MU1	MU Elective Course	Elective		2	University
	CAMS 231	Emergency Care	Required		2	College
	CAMS 2	CAMS Elective Course	Elective		2	
Level 4	RMI241	General Pathology	Required	RMI 237 RMI 232	2	Department
	RMI242	Patient Care and Ethics in Radiology	Required		2	
	RMI243	Radiographic Anatomy	Required	RMI232	2	
	RMI244	Radiographic Techniques 1	Required	RMI233	2	
	RMI245	Computer Applications in Radiology	Required		2	
	RMI246	Digital Imaging Systems	Required	RMI235	2	
	RMI247	Numerical Mathematics	Required		2	
	MU2	MU Elective Course	Elective		2	University
	CAMS 3	CAMS Elective Course	Elective		2	College
Level 5	RMI351	Nuclear Medicine Physics and Instrumentations	Required	RMI246	3	Department
	RMI352	Cross-Sectional Anatomy	Required	RMI243	2	
	RMI353	Computed Tomography Physics and Instrumentation	Required	RMI246	3	
	RMI354	Radiographic Techniques 2	Required	RMI244	2	
	RMI355	Clinical Practicum 1	Required	RMI244	3	
	MU 3	MU Elective Course	Elective		2	University
	MU 4	MU Elective Course	Elective		2	
Level 6	RMI361	Ultrasound Physics and Instrumentation	Required	RMI246	2	
	RMI362	Radiographic photography	Required	RMI354	2	Department
	RMI363	Magnetic Resonance	Required	RMI246	2	

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
		Physics and Instrumentation				
	RMI364	Image Analysis	Required		2	
	RMI365	Radiographic Pathology	Required	RMI241	2	
	RMI366	Clinical Practicum 2	Required	RMI355 RMI 354	2	
	MU 5	MU Elective Course	Elective		2	University
	MU 6	MU Elective Course	Elective		2	
Level 7	RMI471	Trauma & Emergency Radiography	Required	RMI365	2	Department
	RMI472	Computed Tomography Techniques	Required	RMI353	2	
	RMI473	Image Processing Techniques	Required	RMI364	3	
	RMI474	Radiation Therapy Physics and Instrumentation	Required		2	
	RMI475	Nuclear Medicine Techniques	Required	RMI351	2	
	RMI476	Clinical Practicum 3	Required	RMI366	2	
	RMI (G1)	RMI Elective Course 1(TRACK)	Elective		2	
Level 8	RMI481	Ultrasound Techniques	Required	RMI361	3	Department
	RMI482	Radiation Therapy Techniques	Required	RMI474	3	
	RMI483	Research Methodology	Required		2	
	RMI484	MRI Techniques	Required	RMI363	3	
	RMI485	Clinical Practicum 4	Required	RMI476	2	
	RMI486	Introduction to Radiation Oncology	Required		2	
	RMI (G2)	RMI Elective Course 2(TRACK)	Elective		2	
Level 9	RMI591	Quality Assurance in Radiology	Required		2	Department
	RMI592	Graduation Project	Required		2	

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
	RMI(G3)	RMI Elective Course 3	Elective		2	
	RMI(G4)	RMI Elective Course 4	Elective		2	
	RMI(G5)	RMI Elective Course 5	Elective		2	
	RMI(G6)	RMI Elective Course 5	Elective		2	

4th Year Semester 1	Course code	Course title	Required or elective	Credit Hours	College or Department
G1	RMI411	Computed Tomography Procedures 1	Elective	2	Department
	RMI421	Magnetic Resonance Imaging Procedures 1	Elective	2	Department
	RMI431	Health Safety for Sonographers	Elective	2	Department
	RMI441	Dosimetry and Treatment Planning	Elective	2	Department
	RMI451	Nuclear Medicine Clinical Practice 1	Elective	2	Department
4th Year Semester 2	RMI412	Computed Tomography Procedures 2	Elective	2	Department
	RMI422	Magnetic Resonance Imaging Procedures 2	Elective	2	Department
	RMI432	Diagnostic Medical Sonography Clinical Practice	Elective	2	Department
G2	RMI442	Radiation Safety and Dosimetry	Elective	2	Department
	RMI452	Nuclear Medicine Clinical Practice 2	Elective	2	Department

5th Year Semester 1 G3	RMI513	Sectional Imaging Clinical CT Practice-1	Elective	2	Department
	RMI523	Sectional Imaging Clinical MRI Practice-1	Elective	2	Department
	RMI533	Small Parts and Interventional Sonography	Elective	2	Department
	RMI543	Radiation Therapy Clinical Practice 1	Elective	2	Department
	RMI553	Radiopharmacy and Radiochemistry	Elective	2	Department
G4	RMI514	Sectional Imaging Clinical CT Practice 2	Elective	2	Department
	RMI524	Sectional Imaging Clinical MRI Practice 2	Elective	2	Department
	RMI534	Abdominal Sonography	Elective	2	Department
	RMI544	Radiation Therapy Clinical Practice 2	Elective	2	Department
	RMI554	Radionuclide Therapy	Elective	2	Department
G5	RMI515	Pathology in Computed Tomography Imaging	Elective	2	Department
	RMI525	Pathology in Magnetic Resonance Imaging	Elective	2	Department
	RMI535	Vascular & Cardiac Sonography	Elective	2	Department
	RMI545	Clinical Radiation Oncology Practice	Elective	2	Department
	RMI555	Advanced Radionuclides Procedures.	Elective	2	Department

G6	RMI516	Advance Computed Tomography Imaging	Elective	2	Department
	RMI526	Advance Computed Tomography Imaging	Elective	2	Department
	RMI536	Advance Ultrasound Imaging	Elective	2	Department
	RMI546	Advance Clinical Radiation Therapy	Elective	2	Department
	RMI556	Advance Nuclear Medicine Imaging	Elective	2	Department

*Include additional levels (for three semesters option or if needed).
**Add a table for the courses of each track (if any)

3. Course Specifications:

Insert hyperlink for all course specifications using NCAAA template (T-104)

my.sharepoint.com/:f:/g/personal/s_elgak_mu_edu_sa/EoB2ulNo25pJsp62RJXg7rkBRkgQ3WoEp-Mk9SWagoMugw?e=AnS3zP

4. Program learning Outcomes Mapping Matrix:

Align the program learning outcomes with program courses, according to the following desired levels of performance *(I = Introduced&P = Practiced&M = Mastered).*

Course code & No.	Program Learning Outcomes										
	Knowledge and understanding				Skills				Values, Autonomy, and Responsibility		
	K1	K2	K3	K4	S1	S2	S3	S4	V1	V2	V3

Course code & No.	Program Learning Outcomes										
	Knowledge and understanding				Skills				Values, Autonomy, and Responsibility		
	K1	K2	K3	K4	S1	S2	S3	S4	V1	V2	V3
RMI232	I	I			I						
RMI233	I			I	I						
RMI234	I		I			I					
RMI235	I					I			I		
RMI237		I				I			I		
RMI241	I	I			I						
RMI242	I	I				I					
RMI243		I	I				I				
RMI244	I		I					I	I		
RMI245		I						I	I		
RMI246	I			I		I					
RMI247	I	I				I					
RMI351				I		I		I			
RMI352			I			I		I			
RMI353				I		I		I			
RMI354	I		I					I			
RMI355							I		I	I	
RMI361				P		P		P			
RMI362		P	P				P				
RMI363				P		P		P			
RMI364		P	P				P				
RMI365			P			P		P			
RMI366							P		P	P	
RMI471			P			P	P				
RMI472		P		P			P				
RMI473		P						P	P		
RMI474				P		P		P			
RMI 475		P		P			P				
RMI476								P	P		P
RMI481			M				M		M		
RMI482			M				M		M		
RMI483				M				M		M	
RMI484			M				M		M		
RMI485								M		M	M
RMI486			M				M			M	
RMI (G1)				M				M			M
RMI591				M	M			M			

Course code & No.	Program Learning Outcomes										
	Knowledge and understanding				Skills				Values, Autonomy, and Responsibility		
	K1	K2	K3	K4	S1	S2	S3	S4	V1	V2	V3
RMI592								M		M	M
RMI(G2)				M				M			M
RMI(G3.G4G5. G6)				M				M			M

Courses	Program Learning Outcome (CT Track): NQF Learning Domain and Learning Outcomes										
	Knowledge and Understanding				Skills				Values		
	K.1	K.2	K.3	K.4	S.1	S.2	S.3	S.4	V.1	V.2	V.3
RMI411				M				M			M
RMI412				M				M			M
RMI513				M				M			M
RMI514				M				M			M
RMI515				M				M			M
RMI516				M				M			M

Courses	Program Learning Outcome (MRI Track): NQF Learning Domain and Learning Outcomes										
	Knowledge and Understanding				Skills				Values		
	K.1	K.2	K.3	K.4	S.1	S.2	S.3	S.4	V.1	V.2	V.3
RMI421				M				M			M
RMI422				M				M			M
RMI523				M				M			M
RMI524				M				M			M
RMI525				M				M			M

Courses	Program Learning Outcome (MRI Track): NQF Learning Domain and Learning Outcomes										
	Knowledge and Understanding				Skills				Values		
	K.1	K.2	K.3	K.4	S.1	S.2	S.3	S.4	V.1	V.2	V.3
RMI526				M				M			M

Courses	Program Learning Outcome (US Track): NQF Learning Domain and Learning Outcomes										
	Knowledge and Understanding				Skills				Values		
	K.1	K.2	K.3	K.4	S.1	S.2	S.3	S.4	V.1	V.2	V.3
RMI431				M				M			M
RMI432				M				M			M
RMI533				M				M			M
RMI534				M				M			M
RMI535				M				M			M
RMI536				M				M			M

Courses	Program Learning Outcome (Radiotherapy Track): NQF Learning Domain and Learning Outcomes										
	Knowledge and Understanding				Skills				Values		
	K.1	K.2	K.3	K.4	S.1	S.2	S.3	S.4	V.1	V.2	V.3
RMI441				M				M			M
RMI442				M				M			M
RMI543				M				M			M
RMI544				M				M			M

Courses	Program Learning Outcome (Radiotherapy Track): NQF Learning Domain and Learning Outcomes										
	Knowledge and Understanding				Skills				Values		
	K.1	K.2	K.3	K.4	S.1	S.2	S.3	S.4	V.1	V.2	V.3
RMI545				M				M			M
RMI546				M				M			M

Courses	Program Learning Outcome (NM Track): NQF Learning Domain and Learning Outcomes										
	Knowledge and Understanding				Skills				Values		
	K.1	K.2	K.3	K.4	S.1	S.2	S.3	S.4	V.1	V.2	V.3
RMI451				M				M			M
RMI452				M				M			M
RMI553				M				M			M
RMI554				M				M			M
RMI555				M				M			M
RMI556				M				M			M

* Add a separated table for each track (if any).

5. Teaching and learning strategies applied to achieve program learning outcomes.

Describe teaching and learning strategies, including curricular and extra-curricular activities, to achieve the program learning outcomes in all areas.

The program's learning outcomes were established in accordance with the program's mission and objectives. Subsequently, all the courses were synchronized with the program learning outcomes. For each result, suitable performance indicators were determined, serving as the foundation for all instructional and evaluative endeavors. The assessment measures have been specifically developed to assess the efficacy of instructional approaches in achieving the desired program objectives. Various assessment methodologies are being employed to align with all components of the instructional plans across different modules. The assessment

procedures are carefully designed to align with the educational goals and objectives established at the commencement of the semester and are then executed consistently throughout the duration of the semester. The process of selecting suitable assessments aligns with the goals and objectives of courses and programs. The program incorporates a range of teaching and learning strategies, including lectures, support readings, group discussions, report writing, activities and homework, result interpretation, brainstorming sessions, laboratory demonstrations, laboratory training in conducting experiments, and individual and group tasks such as presentations and assignments. Additionally, individual and group discussions are utilized as part of the instructional approach.
The program's extracurricular offerings encompass a range of activities, including volunteer work, cultural engagement, and community service initiatives.

6. Assessment Methods for program learning outcomes.

Describe assessment methods (Direct and Indirect) that can be used to measure the achievement of program learning outcomes in all areas.

The program should devise a plan for assessing Program Learning Outcomes (all learning outcomes should be assessed at least twice in the bachelor program's cycle and once in other degrees).

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The program should devise a plan for assessing Program Learning Outcomes (all learning outcomes should be assessed at least twice in the bachelor program's cycle and once in other degrees).

At the conclusion of each academic year, an assessment is conducted to measure the performance indicators and afterwards evaluate their general consistency. Following the completion of this process, a recommendation for improvement is formulated and subsequently incorporated into the upcoming year's improvement plan.The learning objectives of each module within the medical radiological sciences curriculum are designed to coincide with the overall program outcomes. Every module within the curriculum is designed to achieve certain learning results, typically ranging from 3 to 5 outcomes. These outcomes are assessed using approved techniques of evaluation. Both direct and indirect assessment methods are employed to verify the attainment of the intended program outcomes. The assessment process involves the utilization of several forms of coursework, including quizzes, examinations, projects, presentations, and homework, among others. These exercises are directly linked to the course results, as the grades obtained from them contribute to the overall assessment of student performance.The performance indicators are assessed at the conclusion of each academic year, and their overall coherence is reviewed. The process of determining appropriate assessments is in accordance with the goals and objectives of courses and programs. The program integrates various pedagogical approaches to facilitate teaching and learning. These approaches encompass lectures, supplementary readings, collaborative discussions, written reports, practical exercises, homework assignments, analysis of outcomes, brainstorming sessions, laboratory demonstrations, hands-on training in experimental

procedures, as well as individual and group-based tasks such as presentations and assignments. Furthermore, the instructional technique incorporates both individual and group conversations. The program's extracurricular programs comprise a diverse array of activities, which include engaging in volunteer work, participating in cultural events, and doing community service efforts.Based on the result of this process a recommendation for improvement is prepared which are made part of next year improvement plan.

	NQF Learning Domains and Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	**Knowledge**		
K1	To describe patient positioning and anatomical structures radiographically techniques via research aspect solutions in societal and global context.	Lecture, Support readings, Group discussions, Writing reports, activities and homework.	Direct Assessment: Written Exams, long and short essays, group reports. Indirect Assessment: Surveys
K2	to explain problems-and solutions associate with critical-thinking skills in the performance of medical imaging procedures		
K3	Tochoose suitable ionizing radiation.		
K4	To explain problems via critical thinking in medical imaging procedures and conclude the solutions		
2.0	**Skills**		
S1	To produce diagnostic images and able to create conclusions.	Lectures, Group work and Discussion, Case studies, Brainstorming sessions.	**Direct Assessment:** Written exams, long and short essays, Analytical reports, Case studies, Video analysis, group reports assessments, lab reports assessments. **Indirect Assessment:** Surveys
S2	To select exposure factors considering radiation protection laws for the patients, competent and workers. Recognizing emergency patient conditions and, if necessary, initiating lifesaving first aid.		
S3	Tointerpret an appropriate information and communications technology in gathering, and communicating medical images performance and reconstruction		

S4	To use standard tests and measurements, to evaluate data and to apply patient care radiological procedures effectively	Demonstrations on use of lab equipment's. Lab training in conducting experiments.	**Direct Assessment:** Lab examination and lab reports. **Indirect Assessment:** Surveys
3.0	**Values**		
V1	To demonstrate expected professional behavior within the profession's scope of practice and function effectively as a leader or member of the team	Lab demonstrations, individual and group tasks including presentation and assignments.	**Direct Assessment:** Assessment of good laboratory practices, Assessment of individual and group presentations, group reports. **Indirect Assessment:** Surveys
V2	To demonstrate and enhance competence in written, oral, and graphical communication across diverse technical and non-technical settings.		
V3	To promote a positive learning environment for the education and clinical skills development in the field of radiology		

D. Student Admission and Support:

1. Student Admission Requirements

The admission process of all students of MU is performed mainly electronically via the E-Register electronic system. Electronic admission starts with 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 several credit hours according to his academic standing. Students with GPA of 2.0 are eligible to register for 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 restrictions, 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.

2. Guidance and Orientation Programs for New Students

(Include only the exceptional needs offered to the students of the program that differ from those provided at the institutional level).

The program administration regularly organizes seminars for newly enrolled students in order to provide an overview of the program's curriculum, study system, and potential career opportunities for graduates. Additionally, it involves the identification of students' needs and the development of solutions to address them. This course aims to provide students with an understanding of the study structure employed in higher education institutions, specifically colleges and universities. The aforementioned information encompasses several key aspects, including the identification of college team members, the introduction of various units and departments within the college, and an exploration of how the college may support students throughout their academic journey. Additionally, it delves into the procedures associated with E-Admissions, as well as the protocols pertaining to absences and warnings. This inquiry pertains to strategies for fostering creativity in the context of learning, as well as approaches for studying well and utilizing the information resources made available by the institution. Additionally, it encompasses the topics of study postponement and suspension, as well as absences and warnings.

3. Student Counseling Services

(Academic, professional, psychological and social)

(Include only the exceptional needs offered to the students of the program that differ from those provided at the institutional level).

Academic Advising is an essential and central element in the educational system, it is an objective response to the economic, humanitarian, and social variables built into the system and philosophy of education, as well as being responsive to the needs of the student to Communicate with university education, which represents a necessary national development to achieve humanity innovation and excellence requirements.

Tasks of the Academic Advising Unit Coordinator There is an academic advising unit in each faculty headed by a member of the faculty staff. Such coordinator has the following tasks:

1. General supervision of the work of academic advisors and follow up the cases referred to him/her.
2. Welcome new students on the first day of study and introduce them to the university regulations.
3. Allocate students in a fair manner between faculty staff taking into consideration all psychological, social, and linguistic factors.
4. Receive reports about students' issues in addition to the reports sent by the academic advisors, solve their problems or refer them to Vice Dean for Academic Affairs or to Dean if needed.
5. Organize counseling meetings, seminars and workshops to advance the academic advising efforts.
6. Facilitate the tasks of the academic advisors and prepare students' files and forms.
7. Discuss with the faculty council (the Dean or heads of departments) all new developments related to students and suggest solutions and ways for development.

The student's academic advisor's tasks are assigned as follows:

First: Technical Tasks:

1. Filling in specific forms for each student whom he was assigned to advise academically. These forms include the following:
   - Student information form.
   - A semester updated study plan for students. (One can get it from the academic services system (Edu Gate).
   - Registration Form.
   - An up-to-date copy of the academic portfolio (a transcript). (One can get it from the e-academic services system (Edu Gate).
   - Other administrative documents (such as deleting, adding, and withdrawing forms).
   - Should be given to the academic advising coordinator in the college.

2. The end of semester report form for the academic advisor's meetings with students, which should be given to the academic advising coordinator in the college at the end of each semester.
3. The academic advisor can contact with the academic advising coordinator to get these forms
4. Receive reports about students' issues in addition to the reports sent by the academic advisors, solve their problems or refer them to Vice Dean for Academic Affairs or to Dean if needed.
5. Organize counseling meetings, seminars and workshops to advance the academic advising efforts.
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- The end of semester report form for the academic advisor's meetings with students, which should be given to the academic advising coordinator in the college at the end of each semester.
- The academic advisor can contact the academic advising coordinator to get these forms.

2. Courses Registering Process: The academic advisor checks the student's file and his major and helps him to fill in his own registration form before the date of registration.
3. Choosing the Course: The academic advisor should look on the student's action plan through the e-academic services system (Edu Gate) to help the students choose their courses; and he should make sure of the following: a. A student has passed all the required courses and the previous requirements with a grade not less than (D) because he won't be allowed to register in any course till, he passes its previous requirement. b. Knowing the minimum and maximum accredited hours, which a student is allowed to register according to his status (student's academic load).
4. Sorting out the graduation requirements: A student need to pass the courses or the accredited hours to get the bachelor's degree in his major as follows: ¬ Carrying out the mandatory university requirements successfully. ¬ Carrying out the mandatory college requirements successfully. ¬ Carrying out the mandatory department requirements successfully. ¬ Passing all the required courses with a cumulative grade that should not be less than (2.0).
5. Helping the student to prepare a timetable and a study plan to complete all the graduation requirements within the maximum permitted period of years.
6. Explaining the grades average (both for each semester and cumulative): The student's semester and cumulative performance is measured through calculating the semester and cumulative grades average.
7. Help students to choose their majors according to their inclinations and capabilities in the multi-specialization's faculties and departments.
8. Solving problems: The academic supervisor helps students to cope with problems related to their majors through shedding light on the causes of the problem and then suggesting solutions.
9. Refer the student to those who can answer his social, academic, or even psychological queries if not acquainted by the academic advisor (Referral to the appropriated and concerned authorities at the university).

Secondly: Administrative tasks:

The academic advisor helps student to take his decisions about the following procedures:

1. (Change a major. Add and delete courses. Withdraw from a course. Withdraw from a term. Withdraw from the University. Notice: It's very important to refer to the registration rules which organize such procedures and their academic consequences, which can be found at the Admission and Registration Deanship website.

2. Student's absence the absence is formally considered from the first day of study. According to the policy of the university, the student receives the first warning letter in case of being absent about 5% of the total approved teaching hours of the course. He receives the second warning letter in case of being absent 10% of the total approved teaching hours of the course and he might receive a denial in case of being absent for more than 25% of the total approved teaching hours of the course. Notice: the student who has received a denial is considered as failed in the course (With the need to review the list of coercive excuses for university students).

4. Special Support

(Low achievers, disabled, gifted, and talented students).

The CAMS offers psychiatric and medical support for students who became disabled during their studies

and who could continue their education at the program.
Regarding compensation measures for students with disabilities and chronic illness, decisions are taken by the department on an individual basis.
For the low achiever students, extra classes are arranged with the respective course staff member and coordinator to strengthen and support the student knowledge, and more lab session also arranging with the respective lab manager to improve students' competence skills. Talented students are planned to join multiple events and research conferences, community activities as well as students' activities in order to communicate with the professional scientific fields and scientists making use of their experiences.

E. Faculty and Administrative Staff:

1. Needed Teaching and Administrative Staff

Academic Rank	Specialty		Special Requirements / Skills (if any)	Required Numbers		
	General	Specific		M	F	T
Professor	**Radiology**	**CT, MRI, US, Nuclear Medicine and Radiation therapy**	**Experts in scientific research**	**2**	**2**	**4**
Associate Professor	**Radiology**	**CT, MRI, US, Nuclear Medicine and Radiation therapy**	**Experts in scientific research**	**2**	**4**	**6**
Assistant Professor	**Radiology**	**CT, MRI, US, Nuclear Medicine and Radiation therapy**	**Experts in scientific research**	**2**	**2**	**4**
Lecturer	**Radiology**	**Medical imaging**	**Experts in scientific research**	**2**	**2**	**4**
Teaching Assistant	**Radiology**	**Radiology**	**Cooperative and hard worker**	**2**	**2**	**4**
Technicians and Laboratory Assistant	**Radiology**	**Radiology**	**Cooperative and hard worker**	**2**	**2**	**4**
Administrative and	**Administra**	**Administra**	**Administrative**	**1**	**1**	**2**

Supportive Staff	**tion**	**tion**	**skills with English language skills and computers sciences**			
Others (specify)	**Statistician**	**Statistician**	**Analysis statistical study in radiological field**	**1**	**1**	**2**

F. Learning Resources, Facilities, and Equipment:

1. Learning Resources

Learning resources required by the Program (textbooks, references, and e-learning resources and web-based resources, etc.)

Majmaah University has subscription to many of the periodicals related to the Radiological Sciences and Medical Imaging (RMI) 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) Each course coordinator provides a list of related reference books for his courses at the first pages of the module guide. The whole list for all courses and submits it to the vice dean of academic affairs for approval and then sent to the University central library for purchase. Faculty and teaching staff follow the institutional process for planning and acquisition of any resources needed for library, laboratories, and classrooms, this procedure generally start by submitting their requests in appropriate forms to the department heads, who forwarded to the Lab and equipment committee for study and recommendation then the final list of equipment must be approved in the department council. Then the collective lists will be submitted to the vice dean of academic affairs. Upon approval, these lists will take its track through college administration and then to the concerned university administrations. The references courses books are provided by the Saudi digital library and Majmaah Library through the following links:

- Saudi digital library: http://sdl.edu.sa/SDLPortal/EN/Publishers.aspx.
- Majmaah University : http://maktabat.mu.edu.sa

2. Facilities and Equipment

(Library, laboratories, classrooms, etc.)

(Library, laboratories, classrooms, etc.)

Based on the recommendation from the Course Coordinators and relevant units thedepartment send the list of requirements for Reference Books, Lab Equipment/Consumables, and other teaching materials to the relevant Vice Deanships. These recommendations are being considered as part of the College Annual Improvement and Action plan.

https://majmaah-my.sharepoint.com/:x:/g/personal/s_elgak_mu_edu_sa/EbJ1Cck1AzJNgNkPQIeFM3IBgHXGVvzrmkM3tW05Xki-jw?e=S0lTrx

3. Procedures to ensure a healthy and safe learning environment

(According to the nature of the program)

The administration of CAMS has implemented a Laboratory Unit with the aim of guaranteeing quality

assurance within the laboratories of CAMS. Additionally, the RMI department has established a lab committee to collaborate with this unit. All RMI laboratories are provided with essential safety facilities, including personal protective equipment, emergency phone numbers, general safety signs and instructions, particular safety instructions and labels, fire alarms, and fire extinguishing equipment. Additionally, near the laboratories, there exist emergency exits. The College adheres to the criteria set forth by the Department of Health and other local and national regulatory agencies to ensure compliance with health and safety measures. The CAMS facilities undergo an annual examination by the appropriate authorities for the purpose of auditing. Following the completion of an audit, it has been determined that the college has obtained certification from the Occupational Health and Safety Assessment Series (OHSAS).
The healthy and safe learning environment manual is linked below:
https://www.mu.edu.sa/en/node/29805

G. Program Quality Assurance:

1. Program Quality Assurance System

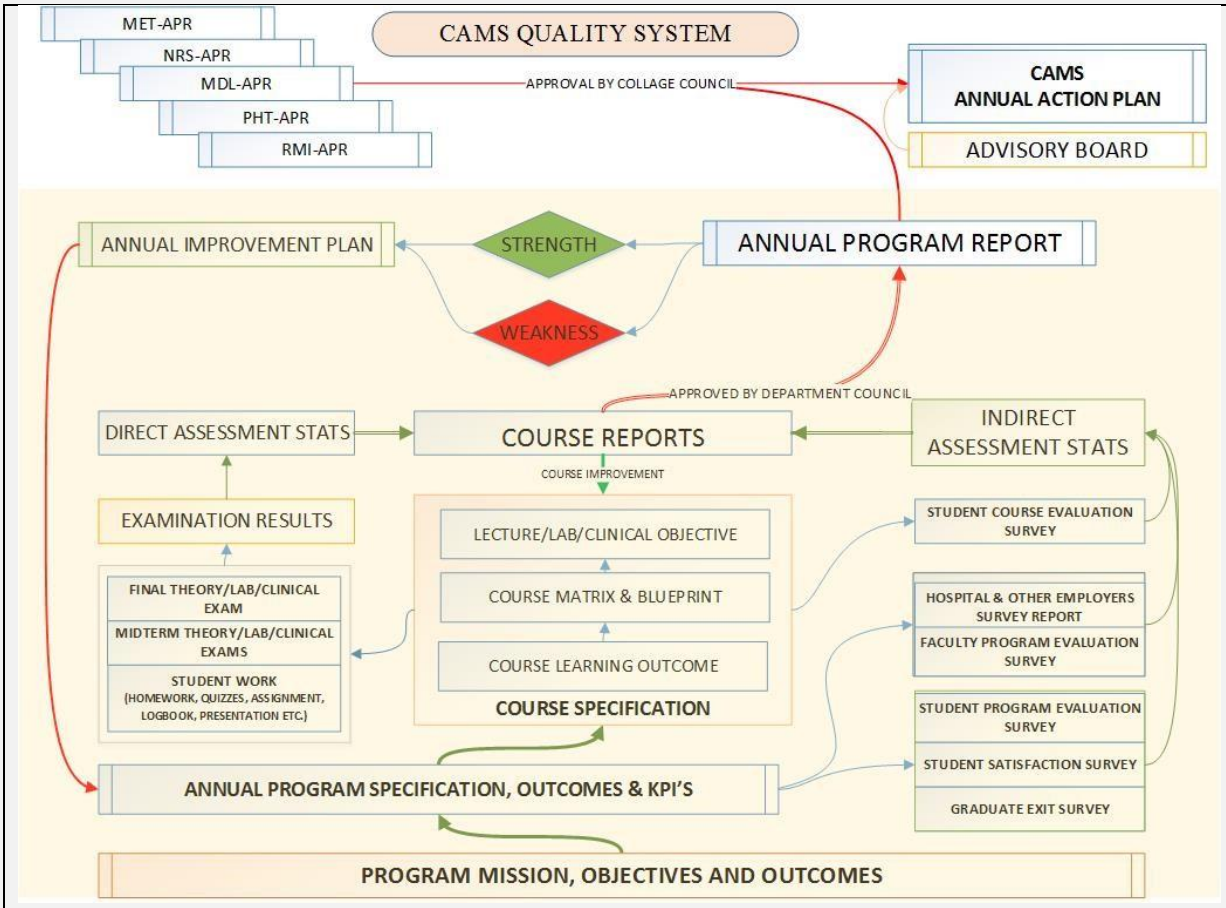
Provide a link to the quality assurance manual.

Quality Manual System
MU Academic Programs Quality Assurance Handbook

a. At the beginning of each semester,

- The module coordinators are decided and provided with the approved module specification to be taught.
- This module specification along with assessment rubrics and any other relevant information are provided to all the students taking that module.
- One of the main responsibilities of the module coordinator is to ensure the timely and uniform delivery/assessment of the module at all the sections it is being taught in that semester.
- The module coordinator after consultation with all the teachers send recommendations in the course report regarding revision of the module learning outcome, revision of the assessment mode, modification of course content, requirements for special tools/equipment for implementing the module objectives or any other difficulty faced during that semester.
- This course report is then deliberated upon by the Academic Advisory Committee, Quality Assurance Committee, and the Department council.

If required, an internal/external expert committee is constituted for module evaluation.



Annual Quality Assurance approaches for the RMI Studies Program

In CAMS, there is a well-defined Management Control Process for Quality Assurance. The body responsible for monitoring of all issues related to quality is the Vice Deanship of Quality. The role of Vice Deanship is to advise and support secondary committees of quality within CAMS departments to ensure the congruence of all processes with the university mission, the short and long-term planning and reporting procedures based on evidence of quality of performance. All faculty members are involved in quality improvement processes, through focus group discussion, surveys and their evaluations for:

- Resources and program administration
- Appropriateness of mission and vision
- Overall student performance
- Their training and development needs
- Quality of examinations
- Job satisfaction
- Adequacy of research tools

These feedbacks are collected, analyzed by quality and accreditation committee and the results are included in course and program reports and as separate feedback for the decision-maker body to help in building of strategic, improvement and operational plans.

b. Explain the process of the Advisory Committee (if applicable)

The advisory Committee consists of the members from the all-inclusive stakeholder associated with the

RMI program. This committee meets at least once every year where they are provided with all the program data including the Annual Program Report (APR) and the proposed Improvement plan for the next year. Their feedback and recommendations are included for the betterment of the program.

The advisory committee meets frequently to review any suggested changes in the curriculum, to maintain the validity of the program educational objectives. In addition, they propose new specialties dealing with new trends in the field of RMI.

2. Procedures to Monitor Quality of Courses Taught by other Departments

When the academic Semester Starts:

The course coordinators and teaching staff in the RMI department have reached a consensus to standardize the teaching materials, also known as course syllabi (CSs), for both male and female sections. In order to meet the standards of quality, it is necessary to ensure that not only uniform teaching materials are provided for the female section, but also that tests, quizzes, question banks, assessment and evaluation rubrics for lab practices, as well as all relevant managerial rules and tools, are shared. The segment pertaining to the students, such as computer science students and evaluation rubrics, will be distributed to both the male and female sections. Course reports (CRs) will consist of feedback summaries and recommendations provided by course instructors. The primary duty of the course coordinator will involve evaluating the suggestions, which encompass potential adjustments to the Course Learning Outcomes (CLOs), Key Performance Indicators (KPIs), course materials, as well as addressing any existing issues and ensuring compliance with quality control requirements. The significant suggestions and recommendations will be presented to the Academic Advisory Committee, Quality Assurance Committee, and the Department council. Consequently, any necessary alterations and adjustments shall be thereafter directed to the College/University Council. The section of quality assurance has also gathered student response surveys and their thoughts. During the administration of final exams for each subject, students also express their opinions on the exam paper and questions.

3. Procedures Used to Ensure the Consistency between Main Campus and Branches (including male and female sections).

According to the course evaluation results due to NCAAA laws all course content will be distributed to the teachers those will handbell the course.

All course belongings will be similarly conducted by different teachers in and outside the department if any.

The name and abbreviations of Radiological Sciences and Medical imaging (RMI) has been the same for the department of the two Branches (Male &Female) in CAMS of MU.

Any Accreditation, evaluation as well as all auditing process will be dealt with the RMI department in male and female sections as one single program for the uniformity and Consistency confirmation.

-To fit and match NCAAA constraints the following points should be considered strictly.

- Exam question paper should be the same.

-Course Materials eaven the power point slides also should be unified.

- The CR of the two branches should be combined in one report.

- The assessment tools and process should be the same.

- Integrated evaluation surveys should be provided for the two branches.

4. Assessment Plan for Program Learning Outcomes (PLOs),

The mission and objectives of the RMI Program are reflected in the learning outcomes (PLO) that have been defined. This means that every course's content is created to meet these objectives and produce the corresponding performance indicators that apply.

Evaluations of the course content delivery method as well as program activities and procedures are conducted.

Exams, quizzes, presentations, assignments, case studies, and other appropriate evaluation approaches and strategies are handled in a different way throughout the semester in the RMI program in order to match and evaluate each characteristic instruction for individual course learning outcomes (CLOs).

Course and program outcomes are assessed on a regular basis through both direct and indirect means using a suitable strategy that has been chosen to ensure the achievement of targets (PLOs).

The Direct Assessment Sheet (DAS) will provide an easy-to-read representation of the achievement percentage status of (CLOs & KPIs), and based on that information, an improvement plan recommendation will be created and implemented for the upcoming academic year.

5. Program Evaluation Matrix

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Mission & Objectives	Faculty, program leaders	Surveys, DATA & KPI's	End of the academic year
Governance Administration	Faculty, program leaders	Surveys, Interview, visit, DATA & KPI's	End of the academic yea
Management of Quality Assurance and Improvement	Faculty, program leaders	Surveys, DATA, KPI's & Outcome evaluation	End of the academic year
Learning and Teaching	Faculty, program leaders	Surveys, DATA & KPI's	End of the academic year
Student administration and Support Services	Students	Surveys, DATA & KPI's	End of the academic year

Evaluation Areas/Aspects	Evaluation Sources/References	Evaluation Methods	Evaluation Time
Learning resources	Students	Surveys, DATA & KPI's	End of the academic year
Faculty and Staff Employment Processes	Faculty, program leaders	Surveys, DATA & KPI's	End of the academic year
Research	Faculty, program leaders	Surveys, Interview, DATA & KPI's	End of the academic year

Evaluation Areas/Aspects (e.g., leadership, effectiveness of teaching & assessment, learning resources, services, partnerships, etc.)
Evaluation Sources (students, graduates, alumni, faculty, program leaders, administrative staff, employers, independent reviewers, and others.
Evaluation Methods (e.g., Surveys, interviews, visits, etc.)
Evaluation Time (e.g., beginning of semesters, end of the academic year, etc.)

6. Program KPIs*

The period to achieve the target (1445) year(s).

No.	KPIs Code	KPIs	Targeted Level	Measurement Methods	Measurement Time
1	MUP-P1	Average rating of beneficiaries' satisfaction with the community services provided by the program on a five-level scale in an annual survey	4.7	Survey	Throughout the academic year
2	KPI-P-01	Average of overall rating of final year students for the quality of learning experience in the program on a five-point scale in an annual survey	4	Survey	End of the academic year
3	KPI-P-02	Average students overall rating for the quality of courses on a five-point scale in an annual survey	4.5	Survey	End of the academic yea
4	KPI-P-03	Proportion of undergraduate students who completed the program in minimum time in each cohort	100%	Data	End of the academic yea
5	KPI-P04	Percentage of first-year undergraduate students who continue at the program the next year to the total number of first-year students in the same year	100%	Data	End of the academic yea
6	KPI-P-05	Percentage of students or graduates who were successful in the professional and / or national examinations, or their score average and median (if any)	50%	Data	End of the academic yea
7	KPI-P-06	Percentage of	Employed = 80% Enrolled in	Data	End of the academic yea

No.	KPIs Code	KPIs	Targeted Level	Measurement Methods	Measurement Time
		graduates from the program who within a year of graduation were: . employed within 12 months, b. enrolled in postgraduate programs during the first year of their graduation to the total number of graduates in the same year.	further study = 20%		
	KPI-P-07	Average of the overall rating of employers for the proficiency of the program graduates on a five- point scale in an annual survey.	4.5	Survey	End of the academic yea
	MUP-P2	The percentage of students who received a warning or more in the program to the total number of students in the program.	0	Biannual	End of the academic yea
	MUP-P3	The percentage of students who were denied entry to the final examination of	0	Biannual	End of the academic yea

No.	KPIs Code	KPIs	Targeted Level	Measurement Methods	Measurement Time
		the course for exceeding the legally permitted percentage of the total number of students in the program.			
9	MUP-P4	The number of student papers that have been published or presented in scientific conferences during the past year	3	Data	End of the academic yea
	KPI-P-08	Ratio of the total number of students to the total number of full-time and full- time equivalent teaching staff in the program	1:10	Data	End of the academic yea
10	KPI-P-09	Percentage of full-time faculty members who published at least one research during the year to total faculty members in the program.	75%	Data	End of the academic yea
	KPI-P-10	The average number of refereed and/or published research per each faculty member during the year (total number of refereed and/or published research to the total number of full-time or equivalent faculty members during the year)	10	Data	End of the academic yea
	KPI-P-11	The average number of citations in refereed journals from published research per	40	Data	End of the academic yea

No.	KPIs Code	KPIs	Targeted Level	Measurement Methods	Measurement Time
		faculty member in the program (total number of citations in refereed journals from published research for full-time or equivalent faculty members to the total research published)			
11	MU-P5	The percentage of full-time faculty members who provided professional development activities inside or outside the university during the year to the total teaching staff in the program.	100%	Data	End of the academic yea

*including KPIs required by NCAAA

H. Specification Approval Data:

Council / Committee	RMI Council meeting
Reference No.	Meeting No. 04
Date	23-02-1444