



# Annual Program Report

— (Bachelor)

Program: Bachelor of Radiological Sciences and Medical Imaging

Program Code (as per Saudi Standard Classification of Educational Levels and Specializations): 091406

Qualification Level: L6

Department: Radiological Sciences and Medical Imaging

College: Applied Medical Sciences

Institution: Majmaah University

Academic Year: 1444 -1445 H

Main Location: Building Number 5 – Main Campus

Branches offering the Program (if any):

- NA

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## A. Program Statistics

Item	Number
Number of students enrolled in the program	40
Number of students who started the program (in reporting year)	133
Number of students who completed the program	11

## B. Program Assessment

### 1. Program Learning Outcomes Assessment and analysis according to PLOs assessment plan \*

#	Program Learning Outcomes	Assessment Methods (Direct and Indirect)	Targeted Performance (%)	Assessment Results
<b>Knowledge and Understanding</b>				
K1	To describe patient positioning and anatomical structures radiographically techniques via research aspect solutions in societal and global context.	Theory Exam, Assignment and Quiz	70%	86%
K2	To explain problems-and solutions associate with critical-thinking skills in the performance of medical imaging procedures	Theory Exam, Assignment and Quiz	70%	85%
K3	To choose suitable ionizing radiation.	Theory Exam, Assignment and Quiz	70%	87%
K4	To explain problems via critical thinking in medical imaging procedures and conclude the solutions	Theory Exam, Assignment and Quiz	70%	86%
<b>Skills</b>				
S1	To produce diagnostic images and able to create conclusions.	Assignment, Quiz, presentation	70%	84%
S2	To select exposure factors considering radiation protection laws for the patients, competent and workers. Recognizing emergency patient conditions and, if	Assignment, Quiz, presentation	70%	85%





	necessary, initiating lifesaving first aid.			
S3	To interpret an appropriate information and communications technology in gathering, and communicating medical images performance and reconstruction	Assignment, Quiz, presentation and Practical Exam	70%	92%
S4	To use standard tests and measurements, to evaluate data and to apply patient care radiological procedures effectively	Assignment, Quiz, presentation and Practical Exam	70%	89%
<b>Values, autonomy, and responsibility<sup>87</sup></b>				
V1	To demonstrate expected professional behavior within the profession's scope of practice and function effectively as a leader or member of the team	Assignment, Quiz, presentation and Practical Exam	70%	88%
V2	To demonstrate and enhance competence in written, oral, and graphical communication across diverse technical and non-technical settings.	Assignment, Quiz, presentation and Practical Exam	70%	95%
V3	To promote a positive learning environment for the education and clinical skills development in the field of radiology	Assignment, Quiz, presentation and Practical Exam	70%	92%

\*Attach a separate report on the program learning outcomes assessment results for male and female sections and for each branch (if any).

#### Strengths:

- An ability to demonstrate and formulate written, oral, and graphical communication in both technical and non-technical environments.
- An ability to demonstrate expected professional behavior within the profession's scope of practice and function effectively as a leader or member of the team.





All the above mentioned are strength point gained during the course handling.

- An ability to explain problems-and tell solutions associate with critical-thinking skills in the performance of medical imaging procedures.

#### Aspects that need improvement with priorities:

- Initiating well-equipped radiological labs.
- Enhance competence in communication across diverse technical effect
- Follow-up of students' progress through direct observation
- Developing the student's skills in more advance medical images performance.
- Motivate the students through applying different class activities





## 2. Students Evaluation of Courses

Course Code	Course Title	Number of Students Who Evaluated the Course		Percentage of Participants		Evaluation Results		Developmental Recommendations
		M	F	M	F	M	F	
<b>SEMESTER ONE</b>								
RMI 232	Principles of Anatomy	7	33	100%	100%	90	76.2	Developmental recommendations for each course are mentioned in the course report in details  (1 <sup>st</sup> Semester CR)
RMI 233	Introduction to Medical Imaging	7	33	100%	100%	92.8	76.8	
RMI 234	Radiation Biology and Protection	7	33	100%	100%	94.3	87.2	
RMI 241	General Pathology	10	10	100%	100%	86.7	86.5	
RMI 242	Patient Care and Ethics in Radiology	10	10	100%	100%	75.3	87.5	
RMI 243	Radiographic Anatomy	10	10	100%	100%	87.5	88.3	
RMI 244	Radiographic Technique 1	10	10	100%	100%	78.9	74.1	
RMI 245	Computer Applications in Radiology	10	10	100%	100%	81.2	67.4	
RMI 246	Digital Imaging Systems	10	10	100%	100%	86.5	70	
RMI 247	Numerical Mathematics	10	10	100%	100%	82.3	71.0	
RMI 351	Nuclear Medicine Physics and Instrumentations	5	27	100%	100%	86.7	89.9	
RMI 352	Cross-Sectional Anatomy	5	27	100%	100%	76	76.3	
RMI 353	CT Physics and Instrumentation	5	27	100%	100%	88.9	74.3	
RMI 471	Trauma and Emergency Radiography	13	17	100%	100%	73.3	77.5	
RMI 472	Computed Tomography Techniques	13	17	100%	100%	74.7	71.3	
RMI 473	Image Processing Techniques	13	17	100%	100%	72.9	70.8	
RMI 474	Radiation Therapy Physics and Instrumentation	13	17	100%	100%	82.5	73.6	
RMI 591	Quality Assurance in Radiology	11	NA	100%	100%	68.2	NA	
RMI 592	Graduation Project	11	NA	100%	100%	66.4	NA	
RMI 543	Radiation Therapy Clinical Practice 1	11	NA	100%	100%	73.2	NA	
RMI 544	Radiation Therapy Clinical Practice 2	11	NA	100%	100%	72.3	NA	
RMI 545	Clinical Radiation Oncology Practice	11	NA	100%	100%	68.1	NA	
RMI 546	Advance Clinical Radiation Therapy	11	NA	100%	100%	77.3	NA	





Course Code	Course Title	Number of Students Who Evaluated the Course		Percentage of Participants		Evaluation Results		Developmental Recommendations
		M	F	M	F	M	F	
<b>SEMESTER TWO</b>								
RMI 235	Radiation Physics and Equipment	7	33	100%	100%	91.4	80	Developmental recommendations for each course are mentioned in the course report in details  (2 <sup>nd</sup> Semester CR)
RMI 237	Principles of Physiology	7	33	100%	100%	90	73.4	
RMI 241	General Pathology	7	33	100%	100%	91.4	74.6	
RMI 242	Patient Care and Ethics in Radiology	7	33	100%	100%	72.6	71.5	
RMI 351	Nuclear Medicine Physics and Instrumentations	10	10	100%	100%	77.8	76.8	
RMI 352	Cross-Sectional Anatomy	10	10	100%	100%	84.4	80.3	
RMI 353	CT Physics and Instrumentation	10	10	100%	100%	88.6	81.3	
RMI 354	Radiographic Techniques 2	5	27	100%	100%	71	70.5	
RMI 355	Clinical Practicum 1	5	27	100%	100%	100	84	
RMI 361	Ultrasound Physics and Instrumentation	5	27	100%	100%	88	79.8	
RMI 362	Radiographic photography	5	27	100%	100%	88	80	
RMI 475	Nuclear Medicine Techniques	13	17	100%	100%	81.6	79.8	
RMI 476	Clinical Practicum 3	13	17	100%	100%	81.6	82.2	
RMI 441	Treatment Planning and Dosimetry	13	17	100%	100%	72.5	70.5	
RMI 481	Ultrasound Techniques	13	17	100%	100%	73.8	60.8	
RMI 482	Radiation Therapy Techniques	13	17	100%	100%	65.4	60	





Course Code	Course Title	Number of Students Who Evaluated the Course		Percentage of Participants		Evaluation Results		Developmental Recommendations
		M	F	M	F	M	F	
<b>SEMESTER THREE</b>								
RMI 232	Principles of Anatomy	NA	24	NA	100%	NA	83	Developmental recommendations for each course are mentioned in the course report in details (3 <sup>rd</sup> Semester CR)
RMI 233	Introduction to Medical Imaging	NA	24	NA	100%	NA	81	
RMI 234	Radiation Biology and Protection	NA	24	NA	100%	NA	79	
RMI 243	Radiographic Anatomy	7	33	100%	100%	84.9	72.4	
RMI 244	Radiographic Technique 1	7	33	100%	100%	88.6	79.6	
RMI 245	Computer Applications in Radiology	7	33	100%	100%	82.8	82	
RMI 246	Digital Imaging Systems	7	33	100%	100%	88.6	81.3	
RMI 247	Numerical Mathematics	7	33	100%	100%	76.5	70.4	
RMI 354	Radiographic Techniques 2	10	10	100%	100%	75	88	
RMI 355	Clinical Practicum 1	10	10	100%	100%	86	80	
RMI 361	Ultrasound Physics and Instrumentation	10	10	100%	100%	87	82	
RMI 362	Radiographic photography	10	10	100%	100%	77	84	
RMI 363	MRI Physics and Instrumentation	5	27	100%	100%	86.6	73	
RMI 364	Image Analysis	5	27	100%	100%	80	70.4	
RMI 365	Radiographic Pathology	5	27	100%	100%	95.1	74	
RMI 366	Clinical Practicum 2	5	27	100%	100%	73.4	75	
RMI 483	Research Methodology	13	17	100%	100%	80	69.4	
RMI 484	MRI Techniques	13	17	100%	100%	78	73.4	
RMI 485	Clinical Practicum 4	13	17	100%	100%	90	65.4	
RMI 486	Introduction To Radiation Oncology	13	17	100%	100%	84	71.4	
RMI 442	Radiation Safety and Dosimetry	13	17	100%	100%	88.9	73.3	





### 3. Students Evaluation of Program Quality

Evaluation Date:	Number of Participants: 87 F, 46 M
Students Feedback	Program Response
<p><b>Strengths:</b></p> <ul style="list-style-type: none"> <li>• The program provided me with suitable and available library resources whenever I needed them.</li> <li>• The program developed my abilities to investigate and solve problems.</li> <li>• The overall evaluation of the program at the intermediate level among students</li> <li>• The program provided me with suitable facilities to perform religious constitutional rights.</li> </ul>	<p>Strengths will be enhanced and good performance will be maintained</p>
<p><b>Areas of Improvement:</b></p> <ul style="list-style-type: none"> <li>• Duration of practice field training</li> <li>• Registration procedures for courses</li> <li>• Extra-curricular activities</li> </ul>	<p>The department is studying the various method and suitable solutions that will lead to the solve all weakness points</p>
<p><b>Suggestions for improvement:</b></p> <ul style="list-style-type: none"> <li>• Increasing the duration of practice field training</li> <li>• Making registration procedures easier for the students.</li> <li>• Providing the program with extra-curricular activities</li> </ul>	<p>The department is studying the various method and suitable solutions that will lead to the solve all weakness points</p>

### 4. Scientific research and innovation during the reporting year

Activities Implemented	Number
Published scientific research	The average in Male and Female = 5
Current research projects	5
conferences organized by the program	0
Seminars held by the program	0
Conferences attendees	0
Seminars attendees	0

#### Discussion and analysis of scientific research and innovation activities:

Over all 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 was 90%.





## 5. Community Partnership

Activities Implemented	Brief Description*
Saudi National Day 30-9-2022	The public health volunteer campaign in the Majmaah Mall educated the local community about many health problems and many free examinations were provided to the beneficiaries.
International Day of Radiology 8-11-2022	International Day of Radiology

\*including timing of implementation, number of participants, and outcomes.

### Comment on community partnership activities\*\*

The participation of the department in community services was humble. These activities increased the community awareness regarding health and diseases, strengthened the relations between the College and the Community

\*\*including overall evaluation of the program's performance in these activities (if any).

## 6. Other Evaluation (if any)

(e.g., independent reviewer, program advisory committee, and stakeholders (e.g., faculty members, alumni, and employers))

Evaluation method: FFS	Date:	Number of Participants: M =5, F 3
Summary of Evaluator Review		Program Response
<p>Strengths:</p> <ul style="list-style-type: none"> <li>The faculty staff members were highly satisfied with his Contribution of his work to the institutional mission and the Institutional leaders' awareness of staff needs, Availability of office equipment and supplies and Receiving formal recognition for contributions and individual accomplishments.</li> <li>Faculty also appreciates of Being recognized by his managers/supervisors and his ability to report complaints without fear of retaliation.</li> <li>Also, happy with Sense of personal safety in the work environment as well as the effectiveness of Human Resources services.</li> </ul>		<p>Strengths will be enhanced and good performance will be maintained</p>
<p>Points for Improvements:</p> <ul style="list-style-type: none"> <li>Some point just needs to have an eye on them like</li> </ul>		<p>The department is studying the various method and suitable solutions that will lead to the solve all weakness points</p>



the office spacings in female section. Library sources also needs some care . Personal safety in the work environment needs to be improved according to female views. finally, over satisfaction

- Also, the technical support needs some modifications

Suggestions for development:

- Put more care on the technical support modification.
- In addition, some awareness of the staff demands needs to be considered .i-e well-equipped labs. and radiologic machines MRI,X-ray ,CT ,PET,SPECT nuclear medicine invitro radioimmunoassay (RIA lab.) ,,,,,, etc...

The department raise the request to head of the department to prepare well equipped lab

\*Attach independent reviewer's report and stakeholders' survey reports (if any).



### C. Program Key Performance Indicators (KPIs)

Including the key performance indicators required by the NCAAA.

No	KPI	Targeted Value	Actual Value	Internal Benchmark	Analysis	New Target
1	<b>KPI-P-01:</b> Students Evaluation of Quality of learning experience in the Program	4.2	4.4	4	This KPI implemented for Male and female sections, the target achieved	4.5
2	<b>KPI-P02:</b> Students' evaluation of the quality of the courses	4.5	4.5	4.4	Students evaluation achieved the targeted internal and external bench mark	4.6
3	<b>KPI-P03:</b> Completion rate	100%	100%	100%	100% of the male students completed the required courses in the require time	100%
4	<b>KPI-P04:</b> First-year students retention rate	100%	100%	100%	This KPI implemented for Male and female sections, the target achieved	100%
5	<b>KPI-P05:</b> Students performance in the professional and/or national examinations	55%	60%	52%	External benchmark was applied for this academic year 1444-1445.	60%
6	<b>KPI-P06:</b> Graduates employability and enrolment in postgraduate programs	EM=80%, EN=20%	EM=80%, EN=0%	EM=75%, EN=0%	The target of employee KPI was achieved in Employed graduates	EM=90%, EN=10%
7	<b>KPI-P07:</b> Employers evaluation of the program graduate proficiency	4.7	4.7	4.6	This KPI is giving an Employers evaluation of the program graduate proficiency for the male section as no	4.8





					graduated in the female one.	
8	<b>KPI-P8:</b> Ratio of students to teaching staff	10:01	11:01	14:01	This KPI implemented for Male and female sections	10.01
9	<b>KPI-P09:</b> Percentage of publications of faculty members	88%	88%	87%	Providing the Percentage of publications of faculty members.	100%
10	<b>KPI-P10:</b> Rate of published research per faculty member	5	5	4	This KPI implemented for Male and female sections	6
11	<b>KPI-P11:</b> Citations rate in refereed journals per faculty member	23	24	21	The faculties citation achieved the targeted internal and external bench mark	25
12	<b>MUP-P1:</b> Average rating of beneficiaries' satisfaction with the community services provided by the program on a five-level scale in an annual survey	4.4	4.5	4.3	Student's evaluation achieved the targeted internal and external bench mark.	4.6
13	<b>MUP-P2:</b> The percentage of students who received a warning or more in the program to the total number of students in the program	0%	0%	0%	Students evaluation achieved the targeted internal and external bench mark.	0%
14	<b>MUP-P3:</b> The percentage of students who were denied entry to the final examination of the course for exceeding the	0%	0%	0%	This KPI implemented for Male and female sections	0%



	legally permitted percentage of the total number of students in the program					
15	<b>MUP-P4:</b> The number of student papers that have been published or presented in scientific conferences during the past year	2	0	0	This KPI implemented for Male and female sections.	2
16	<b>MU-P5:</b> 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	90%	90%	88%	This KPI implemented for Male and female sections, the target achieved	100%

### Comments on the Program KPIs and Benchmarks results:

#### ➤ Strengths:

- KPI implemented for Male and female sections.
- External benchmark implemented for this academic year 1444-1445.
- Student's evaluation achieved the targeted internal and external benchmark and new target benchmark initiated.

#### ➤ Areas and priorities for Improvement:

- Encouraging faculty members who provided professional development activities inside or outside the university.
- Encouraging the students to publish research





- Some motivation of outstanding students could be initiated for such alike excellent behaviors.
- Encourage the students to participate in community services in Majmaah city or other local cities.
- Motivation to the faculties by supporting them to publish their research work in international, high impact factor, ISI Q1 with high citation rate as such a journal are of very high charge and costive.
- Employ and contracting with new teaching staff.
- Promotion the contact process with the graduates, in order inform them the available related vacancies.
- To encourage the graduated students applying for postgraduate degrees and supporting them by finding scholarships and fully funded postgraduate partnerships and collaborations (at home universities and abroad) in RMI different specialties.

**Note: MUPs ((1 to 5) were initiated especially for Majmaah University, and we will do our best to find similar and related KPI statement from other university to have them as external benchmark.**

#### D. Challenges and difficulties encountered by the program (if any)

Teaching	NA
Assessment	NA
Guidance and counseling	NA
Learning Resources	NA
faculty	NA
Research Activities	NA
Others	NA



## E. Program development Plan

No.	Priorities for Improvement	Actions	Action Responsibility
1	Place of practice field training	Recommend a appropriate hospital for training at the beginning of semester	Training committee – Head of the department
2	Increase the percentage of post graduate studies among graduates	To encourage the graduated students applying for postgraduate degrees and keep them in contact with the department through the whatsapp group	Scientific Research & Innovations Committee
3	Increase the passing rate among graduate in SCFHS exam.	The program will organize series of workshop related to SCFHS examination	Interns and health professional Committee
4	Registration procedures for courses	Prepare Orientation to the students	Academic affair committee – Head of the department
5	Extra-curricular activities	Encourage the students to participate in extracurricular activities	Community service committee – Head of the department
6	Initiating well-equipped radiological labs.	Raise the request to head of the department	Lab committee – Head of the department
7	Enhance competence in communication across diverse technical effect	Orientation day	Community service committee – Head of the department
8	Follow-up of students' progress through direct observation	Activate all facilities in Blackboard	Academic affair committee – Head of the department
9	Motivate the students through applying different class activities	Revise assessment method	Community service





			committee – Head of the department
10	Encouraging faculty members who provided professional development activities inside or outside the university.	Encouraging faculty members who provided professional development activities	Faculty affairs committee – Head of the department
11	Encouraging the students to publish research	Orientation lecture for students	Scientific research committee – Head of the department
12	Developing the student's skills in more advance medical images performance	Encouraging students to provide training in summer vacation as a volunteers	Training committee – Head of the department

- Attach any unachieved improvement plans from previous report.
- The annual program report needs to be discussed in department council

#### F. Approval of Annual Program Report

<b>COUNCIL / COMMITTEE</b>	<b>RMI DEPARTMENT COUNCIL</b>
<b>REFERENCE NO.</b>	<b>3</b>
<b>DATE:</b>	<b>14/2/1445</b>

