Akkreditierungsagentur
im Bereich Gesundheit und Soziales
Accreditation Agency in Health and Social Sciences

Assessment Report

for the Application of
the Inaya Medical Colleges
College of Applied Medical Sciences
Department of Radiological Sciences
for the Accreditation of the Study Program "Radiological Sciences",
Bachelor of Radiological Sciences

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Decision	February 15, 2024

[1] *The experts in italics did not participate in the site visit but evaluated the study program on paper beforehand.*

Content

1 Introduction

The Accreditation Agency in Health and Social Sciences (AHPGS) is an interdisciplinary and multi-professional organization. Its mission is to evaluate Bachelor and Master' programs in the fields of health and social sciences, as well as in related domains such as law or economics. By conducting accreditation and recommendation procedures, the AHPGS contributes to the improvement of the overall quality of teaching and learning. However, the higher education institutions remain responsible for implementing the quality assurance recommendations made by the AHPGS. Since 2004, the AHPGS has been a member of the European Consortium for Accreditation (ECA). In 2006, the AHPGS also joined the ENQA and became a member of the International Network for Quality Assurance Agencies in Higher Education (INQAAHE) in 2009. Since 2012, the AHPGS has been a member of the Network of Central and Eastern European Quality Assurance Agencies in Higher Education (CEENQA). Furthermore, the AHPGS has been listed in the European Quality Assurance Register (EQAR) since 2009.

In carrying out accreditation procedures, the AHPGS follows the requirements of the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG). In the present case, the decision regarding the accreditation of the study program is carried out by the AHPGS Accreditation Commission based on the following accreditation criteria[2]:

1. Program aims and their implementation
2. Structure of the Study Program
3. Admission and Feasibility
4. Examination System and Transparency
5. Teaching Staff and Material Equipment
6. Quality Assurance
7. Gender Equality and Equal Opportunities

[2] Approved by the AHPGS Accreditation Commission

I. The University's application

The AHPGS verifies the sufficiency of the documents submitted by the University, namely the Self-Evaluation Report and its corresponding annexes. These are to fulfil the assessment spheres as well as the AHPGS standards. With these information, the AHPGS produces a summary, which is to be approved by the University and subsequently made available for the expert group, together with all other documentation.

II. Written review

The main documents are reviewed by the expert group assigned by the accreditation commission of AHPGS. This is done in order to verify the compliance of the study program with the applicable accreditation criteria. Consequently, the experts comprise a short summary regarding the study programs.

III. On-site visit (peer-review)

The experts carry out a site visit at the University. During this visit, discussions are held with members of the University, which include University and department administration, degree program management, teachers, and students. These discussions provide the expert group with details about the study program beyond the written documents. The task of the experts during the on-site visit is to verify and evaluate the objectives of the program and its projected study results, its structure, staff, material resources, course of studies, methods of assessment (selection of students, assessment of achievements, students' support), as well as the program management (program administration, external assurance of study quality).

Following the site visit, the expert group writes the Assessment Report. This report is based on the results of the visit, the written review of the study programs, and the documents submitted by the University. Finally, the report is made available to the University for the opportunity to issue a response opinion.

The Assessment Report as well as the University's response opinion – together with the provided documents – is submitted to the accreditation commission of the AHPGS.

IV. The AHPGS accreditation decision

The accreditation commission of the AHPGS examines the documentation made available in the process of application, namely the University's self-evaluation report, its annexes, the Assessment Report, as well as the University's response opinion. These documents represent the foundation for the commission's decision regarding the recommendation for accreditation of the study program. Consequently, the decision – together with all other documentation – is forwarded to AHPGS Accreditation Commission for it to reach a decision regarding the accreditation of the study program.

2 Information about the University

Inaya Medical College (IMC) is a private higher education institution, located in the upper north area of Riyadh, Kingdom of Saudi Arabia, which was established in 2011. IMC is committed to provide students access to education, research as well as community services, which will have a positive impact on the economic, social and cultural vitality and health and well-being of the Kingdom of Saudi Arabia (KSA). Currently, IMC has 10 programs from the three Colleges (College of Health Information Systems, College of Applied Medical Sciences, College of Nursing) with 1.735 students in total.

The following table presents the number of students in each program at IMC:

Study Program	Registered Students
Clinical Laboratory Sciences	204
Dental Health Care	46
Nuclear Medicine Technology	46
Nursing	540
Radiological Sciences	138
Biomedical Technology	43
Respiratory Theory	287
Emergency Medical Services	295
Health Information Systems	67
Health Administration	69
	1.735

The “Radiological Sciences” program was established in 2011 to cover the need for greater demand in all health institutions and specialized centers. Currently, there are 119 students in the “Radiological Sciences” program. This program is the only one within the department of “Radiological Sciences”.

3 Overview

3.1 Procedure-related documents

The Self-Evaluation Report for accreditation (without the awarding of the official seal of the Accreditation Council of the Foundation for the Accreditation of Study Programs in Germany) of the above-mentioned study programs (hereinafter the SER) of the Inaya Medical College (hereinafter the University or IMC) was submitted to the Accreditation Agency in Health and Social Science (AHPGS) in electronic format on November 30th, 2022. The decision regarding the accreditation of a study program is carried out by Accreditation Commission of AHPGS. The contract between the IMC and the AHPGS was signed on March 14th, 2022.

On April 28th, 2023, the AHPGS forwarded the open questions and explanatory notes (hereinafter OQ) pertaining to the Application for accreditation for the study programs to the University. On May 23rd, 2023, the University submitted the answers to the open questions and explanatory notes (hereinafter AOQ) to the AHPGS in electronic format.

The application documentation submitted by the IMC follows the outline recommended by the AHPGS. Along with the application request towards accreditation of the Bachelor study program "Radiological Sciences", the following additional documents can be found in the application package (the documents submitted by the University are numbered in the following order for easier referencing):

Specific documents for the study program "Radiological Sciences"

Annex	Description
1	Program Specifications
2	Student Handbook
3	Module Overview
4	Teachers' CV
5	Teaching Matrix
6	Teaching Load Distribution
7	Lab Data
8	Benchmark Report

9	International Collaboration Agreement
10	Required Textbooks
11	Exemplary Course Specifications

Alongside the study-program-specific documents, the following documents pertain to all study program submitted for external evaluation:

Annex	**Description**
A	Study & Examination Bylaws
B	Credit Transfer Committee
C	Quality Manual
D	Academic Advising Policy
E	Student Handbook
F	Employment Policy
G	Recruitment, Selection & Hiring Policy
H	Professional Development Program Policy
I	Professional Development Report 2020/2021
J	Library Policy
K	Budget Policy
L	Organigram
M	Final License
N	Statute & Regulation of IMC
O	Internship Policy
P	Assessment Policy
Q	Specifications & Reports Policy
R	IMC Research Plan 2012-2022
S	Scientific Research Unit Policies
T	Registration and Graduation Policy

The application, the open questions (OQ) and the answer to the open questions (AOQ) as well as the additional documents build the basis for the present summary. The layout bears no significance, as it solely reflects the agreed standard within the University.

3.2 Structural data of the study program

University	Inaya Medical College
Faculty/Department	College of Applied Medical Sciences Department of Radiological Sciences
Cooperation partner	- King Saud Medical City - Mohamed Al-Mana College for Medical Sciences (MACHS) - Dr Sulaiman Alhbib hospitals - Prince Sultan Military Medical City - King Saud Medical City - Saudi German Hospitals - Aster Sanad Hospital - Alghad College for Applied Medical Sciences
Title of the study program	"Radiological Sciences"
Degree awarded	Bachelor of Radiological Sciences
Form of studies	Full-time, on-campus
Organizational structure	Sunday to Thursday from 08:00 am until 06:00 pm
Language of Studies	English
Period of education	Eight semesters (common first year included) + one-year non-credited internship
Credit Hours (CH) according to the internal credit hour system	136 Credit Hours (=286 ECTS)
Hours/CH	1 hour of lecture = 1 credit hour 2 hours of laboratory = 1 credit hour 3 hours of clinical practice = 1 credit hour
Workload	Total: 8,590 hours Contact hours: 1,718 hours Individual work: 3,570 hours Practical hours: 870 hours

	Clinical practice: 720 hours Internship: 2,080 hours
Launch date of the study program	2011
Time of admission	Twice a year at the beginning of each academic semester
Number of available places on the program	60 to 100 places available each year
Number of enrolled students since 2011	550
Particular enrollment conditions	- General Secondary School Certificate - GPA of at least 80% - Achievement test (grade 60 and above) - Aptitude test (grade 65 and above)
Tuition fees	55,000 SAR per year (=13,432 Euro)

Chart 1: Structural data of the study program

4 Expert Report

The site visit was carried out on December 11-12, 2023, according to the previously agreed schedule. Representatives from the head office of AHPGS accompanied the expert group.

The expert group met on December 10, 2023 for preliminary talks prior to the site visit. They discussed the submitted application documents and the results of the written evaluation as well as questions that had been raised before. Furthermore, they prepared the plan of the site visit at the University.

During the on-site visit, experts conducted discussions with the University management, representatives of the College of Applied Medical Sciences, the Chair, Vice Chair and the teaching staff of the program "Radiological Sciences" as well as with students currently studying in the program and alumni. Furthermore, they inspected the learning premises, such as lecture halls, seminar

classrooms, library, and computer classes. Moreover, experts had the opportunity to examine the equipment and the capacity of the laboratories.

The Expert Report is structured in compliance with the "Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG), established by the European Association for Quality Assurance in Higher Education (ENQA). The Study Program will be described and analyzed in a comprehensive manner below. The documents submitted by the University, the Experts' feedback to the documents, the observations made during the site visit, the results of discussions with the representatives of the University, College of Applied Medical Sciences and the Department of Radiological Sciences serve as the foundation for the statements made in the Assessment Report.

4.1 Program aims and their implementation

Summary

According to the University, the "Radiological Sciences" program is a major specialty of the medical system. The general objectives of the "Radiological Sciences" program are as follows (SER 1.3.1):

1) Students:
- Develop a curriculum to be consistent with the best medical education standards.
- Increase the students' motivation.
- Graduate well trained students with advanced skills having the highest standards and professional ethics.
- Upgrade the students' clinical and practical capabilities and improve their skills.

2) Faculty:
- Develop an effective faculty development and evaluation programs.
- Retain outstanding faculty members taking into consideration the program's needs.
- Taking into consideration the ratio of faculty members to students according to the MOE regulations.
- Maintain a good academic environment and provide the students and staff with a stimulating, inspiring, and attracting educational atmosphere.
- Build and maintain the laboratories.

3) Research:

- Improve and promote research projects.
- Conduct evidence-based studies in radiological sciences.

Regarding the qualification objectives, the study program "Radiological Sciences" is articulated around the following three qualifications (SER 1.3.2):

1) Scientific or artistic qualification
- Graduate highly qualified students who are competent in both knowledge and skills.
- The students should be able to recognize and use radiology diagnostic methods.
- Students should be capable of using X-ray, CT, MRI, and Ultrasound mechanisms of human diseases.

2) Engagement in a qualified occupation
- The "Radiological Sciences" program is intended to offer its graduates various career opportunities as "qualified specialists with thorough knowledge of all subdivisions of Radiological Sciences" in all health care facilities.

3) Qualification for social responsibility and personality development
- The students learn to recognize, evaluate, and interpret the results of radiology examinations.
- Graduated students should demonstrate good and effective communication skills with patients and other health care professionals.
- Students get taught ethical and legal manner.
- Graduated students should be able to interact with other professionals to provide an optimum diagnostic outcome.

According to the National Qualifications Framework (NQF), the following learning outcomes have been identified in the three domains "Knowledge", "Skills" and "Value" (SER 1.3.3):

#	Program Learning Outcomes
K1	Identify the fundamental scientific knowledge associated with diagnostic radiology, encompassing principles of physics, radiobiology, radiation protection, as well as anatomy, physiology, and pathology.
K2	Understanding the core concept of image processing and the utilization of computer applications in different radiological modalities.
K3	Describe the theoretical principles and concepts of radiological techniques, patient care, imaging protocols, and patient positioning in various radiological modalities.
K4	Recognize the fundamental principles and concepts related to research and administration in the radiology department.
S1	Operate all radiological and imaging equipment independently.
S2	Evaluate images and processing techniques in different radiologic modalities to ensure diagnostic quality.
S3	Perform routine and emergency radiographic procedures by utilizing different radiologic modalities.
S4	Apply calculation and problem-solving in radiological procedures and modalities.
S5	Interact and communicate effectively with the patients, team members, and other healthcare professionals.
S6	Demonstrate competency in computer-based information, data processing, digital image manipulation and post-processing as well as the internet as a source of communication.
V1	Adhere to commitment to radiological practices, academic values, standards, and ethical code of conduct, represent responsible citizenship and coexistence with others.
V2	Manages clinical practice and safety in different situations within available resources and is self-critical in the evaluation of risk and outcomes.
V3	Demonstrate leadership, professional autonomy, responsibility, commitment and collaboration with others to enhance patient care and self-development.
V4	Engaging in research projects and scholarly activities to upholding ethical and legal standards toward society and professional development.

As the University states, a high demand for health services is expected. Therefore, the Ministry of Health and the Ministry of Education have a strategy to develop the involvement of Saudi citizens in the health fields. Since 2019, the employment of radiographic technologists has increased up to 3211 in both private and governmental sectors. According to the University, the number of jobs for radiographic technologists are being increased as well as the hospital capacities (SER 1.4.2).

The graduated students from the Radiological Sciences program have a wide range of career opportunities. They can work in the following facilities (SER 1.4.1):

- Hospitals (private and governmental),
- Health care facilities,
- Dental centers,
- Physician's offices,
- Mobile imaging companies,
- Industrial plants,
- Research centers,
- Commercial sales,
- Marketing positions.

The graduates also have a wide range of possible subspecialities for employment:

- General radiography,
- Specializing in an imaging technique,
- Radiation safety officer,
- Radiation therapist,
- Medical dosimetrist,
- Education,
- Administration.

Judgement

In the strategic plan of Inaya Medical College, there is a transition in progress to become a university in the coming months. All stakeholders are actively involved in shaping this strategy, which emphasizes community service, research, and the renewal of policies to meet institutional accreditation standards, which will be conducted by NCAAA in 2024. The institution is gearing up to establish itself as a university by introducing new colleges, including the implementation of the College of Nursing. It is recommended by the experts that IMC prioritize increased transparency in reporting graduation rates and implementing robust staff retention strategies. This could involve regularly disseminating accurate graduation statistics to all stakeholders, fostering accountability and trust. Additionally, IMC should formulate a comprehensive strategic plan for the development of academic staff, setting specific targets for the recruitment and advancement of full professors, lecturers, and other academic positions. Furthermore, to promote research, IMC should explore and establish mechanisms that provide time for structured research activities. This might include opportunities for faculty to apply for research terms or employing research assistants, fostering an environment conducive to impactful scholarly endeavors.

As explained by IMC, a new research lab with an electron microscope has been incorporated, its relation to the “Radiological Sciences” program remains unclear. Despite facing challenges such as a shortage of teaching staff due to the specialized nature of some programs, the college has outlined action plans and key performance indicators (KPIs) related to community service. Future plans include the introduction of more Master's programs to diversify academic

offerings. These Master's programs play a pivotal role in fostering research endeavors at the college, contributing significantly to the institution's research output. The experts positively acknowledge that the first Master study programs are going to be implemented in Respiratory Therapy, Nucelar Medicine Technology as well as Clinical Laboratory Sciences in 2024. The experts recommend retaining this strategy and also implementing a Master program for "Radiological Sciences".

Furthermore, the experts inquire about the advantages of private colleges over governmental universities. As IMC explains, the decision-making process is faster, allowing for more dynamic and easy implementation of changes compared to governmental universities. Additionally, they can approach admissions holistically, considering the overall enrollment rather than focusing solely on specific programs. This approach allows IMC to continue maintaining programs with lower enrollment numbers.

From the experts' point of view the Bachelor study program "Radiological Sciences" focuses on specific qualification objectives. These objectives cover professional and interdisciplinary aspects and particularly refer to the domain of academic competences, competences necessary for a qualified employment, skills of social commitment and personal development in Saudi Arabia.

Decision

From the experts' point of view, the requirements of this criterion are fulfilled.

4.2 Structure of the study program

Summary

The "Radiological Sciences" program comprises 49 modules, out of which 19 are studied within the common first year embracing Islamic issues, Arabic language, and basic natural and medical sciences modules; additional 30 modules are focused on radiological sciences. There are no elective modules. There are between five and seven modules in total provided for each semester. All modules have to be completed within one semester. Currently, there are no semesters offered as a period for exchange programs. Nevertheless, the "Radiological Sciences" program allows students to take part in mobility between

colleges/universities inside and outside the Kingdom of Saudi Arabia. Students are admitted under the transfer policy according to each university eligibility requirements.

The list of modules offered:

No.	Title	Sem.	Credit hours
BIOS101	Biostatistics	1	2
COMM101	Communication Skills	1	1
ISLM105	Introduction to Islamic Culture	1	2
COMP101	Computer for Health Sciences	1	2
ARAB101	Arabic Language (I)	1	2
ENGL101	English Language (I)	1	8
			17
BIOL101	Biology	2	3
ETH101	Ethics in Health Care	2	1
PHYS101	General Physics	2	3
CHEM101	Introduction to Chemistry	2	3
ENGL102	English Language (II)	2	4
ENGL105	Medical Terminology	2	3
			17
ISLM106	Islamic and Construction of Society	3	2
BMS231	Anatomy, Embryology & Histology	3	4
BMS232	Physiology	3	3
BMS234	Medical Ethics	3	2
ARAB103	Writing in Arabic Language	3	2
RAD231	X-Ray Physics & Equipment	3	3
RAD232	Radiobiology & Radiation Protection	3	3
			19
RAD241	Computers & Imaging Modalities	4	2

RAD242	Radiographic Anatomy	4	3
RAD243	Nuclear Medicine Physics & Equipment	4	3
RAD244	Image Recording, Quality Asurance & PACS	4	2
RAD245	Radiographic Technique (I)	4	2
RAD246	Radiographic Technique (II)	4	4
ISLM107	The Islamic Economic System	4	2
			18
RAD351	Sectional Anatomy	5	3
RAD352	Ultrasound Physics And Equipment	5	3
RAD353	Radiographic Technique (III)	5	3
RAD354	Radiography Clinical Practice (I)	5	3
RAD355	Nuclear Medicine Technique (I)	5	3
ISLM108	Fundamental of Islamic Political System	5	2
			17
RAD361	Radiographic Pathology	6	2
RAD362	Radiographic Technique (IV)	6	3
RAD363	Radiography Clinical Practice (II)	6	3
RAD364	Nuclear Medicine Technique (II)	6	3
RAD365	Computerized Tomography (I)	6	3
RAD366	Ultrasonography (I)	6	3
			17
RAD471	Radiographic Technique (V)	7	3
RAD472	Radiographic Clinical Practice (III)	7	3
RAD473	Computerized Tomography (II)	7	3
RAD474	Magnetic Resonance Imaging (I)	7	3
RAD475	Student Project	7	2
RAD476	Radiology Administration	7	2
			16
RAD481	Radiotherapy Physics And Equipment	8	3

RAD482	Radiographic Technique (VI)	8	3
RAD483	Radiography Clinical Practice (IV)	8	3
RAD484	Ultrasonography (II)	8	3
RAD485	Magnetic Resonance Imaging (II)	8	3
			15
	Total:		**136**

Table 2: List of modules including semester and credit hours.

The module description/catalogue covers the following aspects: module number and title, description of the content, level/semester, credit hours (divided in lecture hours, practical hours, clinical hours and self-study hours), language of instruction, learning outcomes/goals/skills, content of the module, examination methods (see Annex 04).

The structure of the study program is described as follows (SER 1.3.4):

Semester 1-2: The Common First Year (CFY) is designed to help students during their transition from high school to college life. These modules aim to lay down the foundation of the student's learning through communication in English, information technology and science courses such as Physics, Chemistry and Biology. The CFY develops the mental capabilities of the first-year students and provides them with technical, linguistic, cognitive, and thinking skills through a progressive environment that stimulates learning and inspiration.

Semester 3-4: During those two middle-level semesters, the students get to study basic medical sciences like Anatomy, Physiology or Mathematics and x-ray physics and equipment. These courses give the students all the knowledge required to understand the principles of Radiological Sciences and to be prepared for more advanced courses.

Semester 5-8: These last semesters consist of Radiological Sciences core courses which are given solely under the supervision of the Department of Radiological Sciences. The last two semesters of study include practice using different modalities such as magnetic resonance imaging, interventional radiology, angiography, computed tomography, ultrasound imaging and emergency radiology to learn the interpretation and analysis of medical images.

After completion of the eight semesters of courses, the students have to complete a one-year rotary internship without being awarded any credits. An agreement between the Ministry of Education and the Ministry of Health makes the governmental and private hospitals available for student training purposes. The internship gives the opportunity to integrate basic concepts of the program with professional skills in the clinical environment, as well as to gain the capacity to synthesize, assimilate, and fine tune their acquired knowledge. The internship year is designed to follow a systematic stepwise approach allowing the students to first observe, then review and finally put into practice the psychomotor skills and competencies gained during their study years.

The "Radiological Sciences" program has developed field experience specifications and an internship logbook. The field experience specifications describe the general objectives of the internship period, the ILOs, the student orientation, the preceptor and clinical site selection criteria and the responsibilities. The logbook integrates all clinical skills, competencies and patient encounters mandatory for the professional practice of entry level radiography, as well as the rotation plan of the students and the overall objectives. The internship program is coordinated and supervised by the program internship and clinical training committee which works closely with the IMC Clinical Training and Internship Unit. The committee is responsible for collecting feedback from the students and the clinical preceptors to make sure that the program objectives and intended learning outcomes are fulfilled.

An internship coordinator designated by the Department coordinates with the Clinical Instructor and the students. The Clinical Instructor supervises the students and observes their clinical and professional practice before providing a periodic and continuous report to the Internship Coordinator. To ensure the achievement of the internship ILOs and objectives, the students are assessed by several tools including formative assessments, recording, and monitoring the students' progress through the internship period. At the end of the internship, a summative assessment exam is conducted at the campus (SER 1.2.6).

The "Radiological Sciences" program promotes active student participation and engagement in class. The program applies various teaching strategies that place more responsibility into the students which involve the students in the subject matter and requires students to participate actively in learning activities. The students undergo question-answer sessions and practice their psychomotor

skills during laboratory and clinical training sessions. The teaching methods used depend on the type of instruction given and the learning outcomes. The methods include: lectures, class discussions, seminars, tutorials, presentations, student reports by individuals, class discussions, simulation, case studies, small-group projects and textbook assignments (SER 1.2.4).

The research is incorporated in only one module, namely RAD 475 (Student Project), to promote evidence-based clinical practice. It includes elaborating knowledge, practicing investigation methods and preparing a research work. The program encourages research activities from faculty and students. Moreover, the Research Committee has issued a call for the submission of research projects in form of scientific posters or oral presentations, and will award the best papers with prizes and certificates (SER 1.2.7).

The classrooms are equipped with smart boards connected to the internet, providing a dynamic and interactive learning environment with multimedia capabilities. Google Classroom and Google Meet are used for sharing class materials, assignments, and for the communication between students and faculty. Medgate, the college website portal, allows students to access course details, timetables, assessment scores, admission policies, online applications, course registration, and graduation documents (SER 1.2.5).

The „Radiological Sciences“ program allows students to take part in mobility between colleges inside the Kingdom and in international universities. Incoming students are accepted according to the eligibility criteria of each college/ university according to the transfer policy (SER 1.2.9).

Judgement

The Bachelor study program “Radiological Sciences” has a course-based structure and a course-related examination system. Descriptions of the courses are embedded within the course specifications. These course syllabus contain information on the title, total credit hours, name of the instructor, office hours, phone number and mail address, class schedule, textbooks, description of the course, student learning outcomes, exams, weekly outline of curriculum as well as the schedule of assessments.

The combination and succession of the courses of the study program are consistent with the specified qualification objectives (described earlier). It is

assured that students receive the support and guidance they need for the organization and accomplishment of assignments and the learning process in general.

The selection of hospitals for clinical training involves various criteria, including contractual agreements, staff training, collaboration with Ministry of Health hospitals, the presence of licensed specialists, ensured patient flow, and feedback from departments on student satisfaction. From the experts' point of view the focus on clinical training, particularly in the area of radiotherapy, should be sharpened to establish a unique selling position. Additionally, the experts appreciate the emphasis on imaging, at least in the theoretical realm, and recommend enhancing clinical training in this area.

The experts acknowledge the very detailed course files with its contents and aims, which allows a high level of transparency. In the experts' opinion, the structure of the curriculum seems to make the workload manageable. However, introduction and manifestation of research-based learning and methodology will enhance accessibility and student engagement. Therefore, the experts recommend integrating this as well as digital lectures more strongly into the curriculum.

Decision

From the experts' point of view, the requirements of this criterion are fulfilled.

4.3 Admission and Feasibility

Summary

The admission requirements for the Radiological Sciences course are as follows:

- Applicants must hold a Saudi Secondary School Certificate - Science Section (SSSCSS) or its equivalent from inside or outside the Kingdom of Saudi Arabia, not more than five years old. Exemptions may be considered by the College Council based on satisfactory explanations.
- Candidates must have a good conduct record and should not have been dismissed from another university for disciplinary reasons.
- Successful completion of any required examination or personal interviews, as approved by the College Council.
- Applicants must be physically fit and healthy.

- Approval from the employer is required if the candidate is currently employed by any government or private agency.

In case of limited availability, priority is given to students with higher grades.

Academic counseling and student support are integral to the “Radiological Sciences” program, and various forms of assistance are provided to students from the time of admission (SER 1.6.8):

1. Program Orientation: At the beginning of each academic year, both faculty and students participate in an orientation meeting to become familiar with the range of support services available and receive essential training.
2. Academic Advisor Consultation: Each student is assigned an academic advisor who serves as a point of contact for consultation and advice throughout their studies.
3. Office Hours: Instructors display their available office hours in the course syllabus and on notice boards, allowing students to visit them for additional support.
4. Open-Door Policy: An open-door policy is followed by the Heads of Department and the Vice Dean for Academic Affairs, making them accessible to students seeking guidance.
5. Academic Advisory Committee: For students facing academic warnings, a specialized committee closely monitors their performance, assesses their status, and implements a reinforcement plan to help them improve.
6. Student PDU Workshops: IMC hosts workshops and seminars to equip graduating students with career-related skills and enhance their employability, providing opportunities to interact with potential employers.

Judgement

The admission policies and procedures along with the requirements are properly documented and made publicly available. The experts determine the admission procedures and requirements to be appropriate, as they correspond to the standards of the study program. As the experts learned in discussions on site, most students come to the program as so-called "bridging students" and therefore bring a previous education in the form of a diploma. As the majority of students continue to work, the college makes it possible to combine studying and working with evening lectures, for example.

The experts confirm that the University takes good measures to guarantee the feasibility of the study programs despite the high workload. The organization of the education process ensures the successful implementation of the study programs. The college prioritizes student support through a range of scholarship options. These include discounted tuitions for programs with lower enrollment, academic scholarships based on GPA, specific scholarships for siblings within the college, and additional support such as orphan discounts. The flexibility of fee payment, including installment plans, is designed to accommodate various financial situations, which the experts positively acknowledge.

On site, it became obvious that the teaching staff follows an "open-door-policy". In the first week of each year, students undergo an orientation which familiarizes them with available support services and where the colleges and departments are introduced. As another support mechanism, an academic advisor is responsible for a small number of students from the beginning of each semester. Students are supported through the advisors with their registration process, selecting a study program, financial and personal issues and their performance during the semester. If the students have problems besides academic issue, a social support unit is installed at the University. The experts find the support services at the University to be exemplary and conducive to the health and success of the student body.

Decision

From the experts' point of view, the requirements of this criterion are fulfilled.

4.4 Examination system and transparency

Summary

The „Radiological Sciences" program uses various assessment methods to evaluate students' knowledge, skills, and clinical competency. The choice of assessment depends on whether it is for formative (diagnosis, feedback, and improvement) or summative (promotion and certification) purposes, or both. All modules have specific learning outcomes aligned with program outcomes, and faculty members utilize multiple assessment measures, including assignments, quizzes, mid-term and final exams, projects, and presentations. Students undergo formative assessments throughout the semester, which include quizzes, class presentations, group discussions, and assignments. Summative

assessments consist of the first midterm assessment, second midterm assessment, practical exam and one final examination at the end of the semester (SER 1.2.3).

If students are absent from exams, such as the midterm, practical, or final one, they can submit an electronic absent form via google form to the office of the student affairs department within 72 hours after the exam. This application should include supporting documents that provide a valid excuse for the absence. The Students' Rights and Responsibilities Committee reviews these applications.

If the absence excuse is approved by the Vice Dean's office, a make-up exam will be scheduled for the student to compensate for the missed exam. This allows students with legitimate reasons for their absence to have an opportunity to complete the assessment and demonstrate their knowledge and skills.

The exam schedule during the study program is as follows:

- First midterm exam: 5th - 6th week of the semester
- second midterm exam: 10th – 11th week
- Quizzes and project: continuous
- Final practical exam: 13th week.
- Final exam: Scheduled for the 16th - 18th week of the semester

The following table shows the grade distribution:

Score	Grade	Course Grade
95 - 100	A+	Excellent Plus
90 - less than 95	A	Excellent
85 - less than 90	B+	Very Good Plus
80 - less than 85	B	Very Good
75 - less than 80	C+	Good Plus
70 - less than 75	C	Good
65 - less than 70	D+	Pass Plus
60 - less than 65	D	Pass
Less than 60	F	Fail

The program provides essential information to students through orientation, the IMC student handbook, and the Medgate platform. Medgate offers academic details like requirements, credits, attendance, grades, and the study plan.

Judgement

The University uses a continuous assessment process to ensure the quality of education for its students. The study programs have a course-related examination system. Its implementation, including the grading system, course load regulations, repetition of courses and exams is regulated and transparent for the students. From the experts' point of view, the examination serves to determine whether the envisaged qualification objectives have been achieved. These examinations are focused on students' knowledge and competences. Nevertheless, in the experts' opinion, the study program includes a very high number of exams which causes a high workload not only for students but also for the teaching staff. The transparent information of examination methods and of the examination schedule at the beginning of each term makes the high number of assessments during and at the end of each semester manageable. An examination can be repeated once. Students who cannot attend the test due to health issues or other unforeseen circumstances are allowed to take the test on another agreed day. If the examination is failed twice, students must redo the course in the following semester. Thus, the experts conclude that the examinations, although numerous, serve to determine whether the envisaged qualification objectives have been achieved or not and are focused on students' knowledge.

The requirements to students' performance in examinations are regulated and published in the course specifications. The frequency of examinations, as well as their organizations, is appropriate.

From the experts' point of view, the relevant information concerning the study program, the process of education as well as the admission requirements are sufficiently communicated and published. However, ensuring inclusivity for students with disabilities or chronic illnesses, providing repeatable exams, and compensatory measures are essential for an equitable learning environment. Therefore, the experts recommend to implement compensation regulations for students with difficulties.

Decision

From the experts' point of view, the requirements of this criterion are fulfilled.

4.5 Teaching staff and material equipment

Summary

The workload in the "Radiological Sciences" program is managed by two assistant professors, three lecturers and one teaching assistant. The College has additional staff for the modules taught in the first common year and basic sciences modules. The adjunct staff comprises two professors and seven assistant professors. The current faculty to student ratio is 1:20 (SER 2.1.1).

According to the Ministry of Education regulations, the workload for faculty members are as follows:

Academic Rank	Credits per week
Instructor	20
Lecturer	18
Assistant Professor	14
Associate Professor	12
Professor	10

The recruitment and appointment process for teaching positions at Inaya Medical College is well-structured and compliant with Ministry of Education and Ministry of Human Resources regulations. According to the University, the need for teaching staff in the "Radiological Sciences" program is part of the annual improvement plan. Available vacancies are posted on the college website and newspapers, providing complete job descriptions and required qualifications. The selection process involves initial application reviews to determine which candidates are meeting the minimum qualifications. Shortlisted applicants are then interviewed by a committee chaired by the Dean and composed of the Vice Dean, Head of Department, and a human resources representative. During the interview, candidates present a 20-minute topic-related presentation, evaluated using a rubric developed by the HR department. Successful candidates receive an offer/appointment letter outlining their employment terms, including compensation and benefits. New hires are required to present valid eligibility documentation before their first day of employment. An orientation session is held to introduce new faculty members to the work environment, college and department facilities, and main rules and regulations. Professional development workshops organized by the Professional Development Unit (PDU) are held

periodically. These workshops aim to improve the knowledge and skills of the faculty, staff, and students at four levels: administration, faculty, employees, and students. Topics covered include course design, new teaching methodologies, authentic assessment, class management, infection prevention, and more. The college encourages its staff members to regularly attend these workshops for continuous improvement and quality job performance (SER 2.1.3).

The "Radiological Sciences" program has the following coordinators to organize the department's work: (SER 2.2.1).

- Study program coordinator / Program director (department head)
- Clinical training and internship coordinator (faculty member)
- Academic advisory coordinator (faculty member)
- Laboratory and practical training coordinator (faculty member)
- Quality Assurance coordinator (faculty member)
- Community services and student activities coordinator (faculty member)
- Curriculum and outcome assessment coordinator (faculty member)
- Schedule committee (faculty member)

The "Radiological Sciences" program is housed within the IMC building and shares some facilities with other programs. The labs and classrooms are spacious, easily accessible, and situated on the ground and first floor. Faculty offices are well-equipped and comfortable, providing a suitable work environment. Classrooms are equipped with modern educational technology, including computers with internet access, whiteboards, and projectors. They can accommodate at least thirty students. Safety measures are followed in all laboratories to protect both students and equipment (SER 2.3.1). The program of Radiological Sciences at IMC is equipped with all the required devices for Radiological Sciences training for a high level of knowledge and practices, such as: X-ray & Processing Lab; MRI & CT Simulation Lab; US Lab & US simulation Lab; Radiographic Anatomy Lab; Dental X-ray & panorama Lab. Furthermore, the University has partnerships with hospitals and medical centers in the field of Medical Imaging for student training and internship.

To support the curriculum and research of faculty and students, IMC has established a centrally located College library. The library offers a conducive learning environment, internet access, and quiet study areas. It provides 93 printed textbooks on Radiological Sciences.

The library ensures free and open access to information in both print and electronic formats for all members of the College community. Electronic resources are available 24/7 off-campus and 8 hours a day on-campus. Access to databases can be obtained from any computer within the campus. Students, faculty, and staff can access databases remotely using individual passwords/username provided via the IMC website. Additionally, access to ProQuest databases and the Saudi Digital Library is available to students and faculty (SER 2.3.2).

Since its establishment, IMC has developed financial accounting policies and procedures in line with the requirements for private universities in Saudi Arabia. These policies ensure effective control over financial and accounting processes. The measures include organized financial planning and budgeting, stringent monitoring and follow-up procedures, proper accounting for all income and expenses with supporting vouchers and invoices, and a tracking system for accounting transactions.

The IMC prepares the budget annually after receiving the input from all the staff. The budget of the Radiological Sciences Program aligns with the program's strategic and operational goals, which in turn are in line with IMC's strategic goals and operational plan. The budget, along with the plan, is reviewed, evaluated, and approved by both the department and college councils (SER 2.3.4).

Judgement

New teaching staff is thoroughly briefed about the programs and their teaching responsibilities before they start teaching. Overall, the teaching and academic staff at the Inaya Medical College shows a very high level of commitment and potential for the execution as well as further development of the study program they are responsible for. The experts conclude that there is a strong corporate identity and positive group dynamics among the University and the faculty administration. As motivations to teach at the Inaya Medical College, the faculty cites a positive and supportive environment. There is a strong emphasis on staff development, with support for academic promotions. The comprehensive health insurance, favorable conditions for individuals with family responsibilities, and promising career opportunities contribute to a conducive work environment.

The experts find the amount of human resources allocated to the program to be sufficient to carry out its functions. The teaching staff is well qualified and in possession of academic and technical credentials and experience adequate to their tasks.

As the teaching staff explains, at IMC undergo a thorough approval process for their research proposals by the Research Ethics Committee. There's a clear funding policy in place, providing support for approved research projects. The College supports conference attendance, and there's a collaboration with King Saud University for a promotion policy, where members apply to their scientific council. Notably, there has been a substantial publication rate in the last year, with 24 papers and 85 research works published.

As a whole, the University informs its employees about opportunities for personal and professional development transparently, and actively encourages their participation in workshops, training courses and conferences intended to improve their abilities, which is confirmed during the talks with the staff on site.

The experts visited the premises of the College of Applied Medical Sciences, where the skills labs of the Bachelor study program “Radiological Sciences” are located. The skills labs are equipped with relevant devices. Nevertheless, from the experts’ point of view, the quality of the laboratories and clinical areas used to train students in the program should be updated. Specifically, the equipment should be renewed, for instance by: a state-of-the-art x-ray system, distinguished image post-processing units, dose-measuring devices and experimental set-ups to demonstrate radiation protection, e.g. electronic dosimeters (EPD), virtual linear accelerator.

In summary, it was ascertained by the experts that the Bachelor study program “Radiological Sciences” has ample teaching facilities at its disposal, especially considering that students also acquire practical skills in the surrounding hospitals. However, to align with the mission of national and international competitiveness and to meet the needs of master's students in the future, the equipment in the skills labs should be improved as well as the research should be considerably strengthened and put into the focus.

Decision

From the experts’ point of view, the requirements of this criterion are fulfilled.

4.6 Quality assurance

Summary

IMC has a comprehensive internal quality system that covers various processes and organizational levels. Furthermore, IMC has a 4-year institutional accreditation from the National Commission for Academic Accreditation and Evaluation (NCAAA) in Saudi Arabia. The NCAAA establishes standards and criteria for academic accreditation and assesses postsecondary institutions and their programs to ensure they meet the highest international standards.

To integrate quality concepts throughout IMC, the Directorate of Planning and Quality Assurance (DPQA) was established. The DPQA assists academic and administrative departments in planning and implementing improvement strategies, evaluating performance, and reporting achievements. The program's quality assurance and planning committee, in collaboration with the DPQA, fosters a commitment to quality improvement within the program, assists in quality improvement planning for administrative units, and reports on overall program quality assurance.

To maintain quality within the „Radiological Sciences“ program, its learning outcomes align with the National Qualification Framework (NQF) and other employment and professional practice requirements. Various assessment methods, both direct and indirect, involving all stakeholders, are employed to measure the achievement of program objectives and courses within the study plan. These methods include program and course specifications and reports, surveys (student, alumni, employee, and faculty), advisory committee feedback, and program statistics.

There are monitoring and evaluation tools for improvement, such as the Annual Program Report (APR). The APR includes analysis of key performance indicators, students' feedback, retention and graduation statistics, and a summary of quality assurance activities. An improvement plan is developed based on the APR and forwarded for approval. Externally, benchmark processes, external reviews, and quality assessments are conducted. Additionally, surveys are carried out annually to gather feedback from stakeholders, including students, faculty, and employers, as part of indirect assessment of learning outcomes.

To ensure quality in teaching and learning within the „Radiological Sciences“ program, several assessment tools are employed:

1. Course Specifications (CS) and Course Reports (CR): These tools monitor and evaluate students' academic achievements in each module. Course coordinators review the CS to ensure unified learning objectives and assessment methods. Peer observations of course delivery and exam review and moderation policies are implemented during the semester.

2. Field Specifications and Field Reports: Similar to CS and CR, completed field experience reports and feedback from internship students are shared with the quality coordinator and the Department Council for quality review and improvement planning.

3. NCAAA Surveys: Institutionalized feedback from students is gathered using NCAAA surveys. The results are analyzed and included in the program evaluation and improvement plan. Surveys include course evaluation, student experience, program evaluation, alumni, and employer surveys.

The quality coordinator collaborates with the Curriculum and Outcomes Assessment Committee to enhance course objectives, content, teaching strategies, and assessment methods. Approved improvement plans are implemented, and course specifications for subsequent semesters are updated accordingly. This systematic approach ensures ongoing enhancement of teaching and learning in the „Radiological Sciences“ program, aligning module objectives with the overall program objectives and meeting international quality standards.

Judgement

From the experts’ point of view, the University has a well-structured system of quality assurance spread across all of its unit. The University has developed and documented a concept of quality assurance in the education process, teaching and research, which serves as the basis for the quality-oriented development and implementation of the study program “Radiological Sciences”.

The evaluation process at the college is comprehensive and involves various surveys designed by the National Commission for Academic Accreditation and Assessment (NCAAA). These include the course evaluation survey, a survey

assessing the overall situation of the college (encouraged by department heads), and a survey targeting alumni. Students actively participate in the feedback process, serving as members of the annual student advisory board and contributing through the student council established in 2018. The open-door policy facilitates student involvement in curriculum development, and the program development manual incorporates a feasibility study that considers input from all stakeholders, including employers and students.

The results of the internal quality assurance management are applied for the continuous development of the study program. In doing so, the University takes into close consideration the quality evaluation results as well as the analyses of students' workload, their academic accomplishments and feedback from graduates. The experts appreciate that regularly meetings on different levels are held to improve the study programs. On-site, it was confirmed by the students that evaluation results are taken seriously and changes are implemented based on these results.

Decision

From the experts' point of view, the requirements of this criterion are fulfilled.

4.7 Gender equality and equal opportunities

Summary

Both Inaya Medical College and the "Radiological Sciences" study program have a nondiscriminatory policy when offering study places to students, including those with various disabilities. However, the Radiological Sciences program requires students to be physically and mentally fit to fulfill the requirements of the radiological tasks and responsibilities. The "Radiological Sciences" program requires the students to be free from any physical disability in order to be able to handle the radiology machines successfully (SER 1.2.3).

Both the Male and Female sections of the Radiological Sciences program follow the same rules and regulations. Faculty and students from both sections have equal rights and responsibilities governed by the college's bylaws. The equal delivery of course materials, assessment types, and tools is assured by the coordinators from both sections. The college ensures that high-quality education

is provided to both male and female students. This became clear when the male and female students were combined, starting from the sixth level to emphasize the principle of equality education. Also unifying the subject teacher, whether male or female, to both male and female students. The program also provides an equal opportunity for foreign students to be enrolled in the program (SER 1.6.9).

Judgement

The University demonstrates its commitment to the provision of equal opportunities for all students and shows openness for diversity and social development. Overall, the experts conclude that the University's actions on the provision of gender equality and promotion of equal opportunities for students with particular living circumstances are implemented in a transparent manner. The nature of support varies depending on the program and the specific needs of the students. The college ensures that students facing circumstances that may impact their ability during their study are not excluded and are instead provided with necessary assistance. A barrier-free environment is maintained to accommodate the diverse needs of students, and special funds are allocated to support those with specific requirements.

Decision

From the experts' point of view, the requirements of this criterion are fulfilled.

5 Conclusion

Overall, the experts were impressed and highlight the strong commitment and engagement demonstrated by all levels of the University. From the experts' point of view, the curriculum is well-structured and aligned, providing a solid foundation for the program. The student-centered philosophy of the University is highly appreciated, as students are treated with care and respect. The experts are looking forward to Inaya Medical College's plans to achieve university status.

Based on the information from written documents and the results of the site visit, the Experts came to the conclusion that the study program "Radiological Sciences" offered at the Inaya Medical College fulfills the above-described criteria. Hence, the Experts recommended that the Accreditation Commission of

AHPGS make a positive decision regarding the accreditation of the study program.

For the continuous development of the study program, the experts have outlined the following recommendations:

- A comprehensive strategic plan for the development of academic staff, setting specific targets for the recruitment and advancement of full professors, lecturers, and other academic positions should be formulated.
- Mechanisms that provide structured time for research activities should be established. This might include introducing opportunities for faculty to apply for research terms or employing research assistants, fostering an environment conducive to impactful scholarly endeavors.
- IMC should continue to implement postgraduate study programs.
- Digital lectures and encouragement of self-organized research-based learning and methodology will enhance accessibility and student engagement and could therefore be integrated into the curriculum more strongly.
- Compensation regulations for students with difficulties should be implemented.
- The experts appreciate the emphasis on imaging and recommend enhancing the clinical training in this area.
- The equipment in the laboratories used to train students in the program should be updated. Among others, a state-of-the-art X-ray system, distinguished image post-processing units, dose-measuring devices should be installed.

6 Decision of the accreditation commission

Decision of the accreditation commission February 15, 2024

This resolution of the Accreditation Commission of the AHPGS is based on the University's application, as well as the expert review and the site visit covered in the Assessment Report.

The site visit of the University took place on December 11-12, 2023, according to the previously agreed-upon schedule.

The accreditation procedure is structured according to the Accreditation Criteria developed by the AHPGS. The Accreditation Criteria are developed by the AHPGS in close accordance with the existing criteria and requirements valid in the Federal Republic of Germany and based on the „Standards and Guidelines for Quality Assurance in the European Higher Education Area" (ESG), established by the European Association for Quality Assurance in Higher Education (ENQA).

The Accreditation Commission of the AHPGS discussed the procedural documents and the vote of the expert group regarding the Assessment Report.

The Bachelor study program requires the obtainment of 136 Credit Hours (CH) according to the internal credit hour system. The regulated study period in the program "Radiological Sciences" is five years: eight semesters (four years) at the Inaya Medical Colleges (IMC) followed by one year internship. The program comprises 49 modules out of which 19 modules are studied within the common first year as well as Islamic, Arabic and basic medical sciences modules and 30 are radiological sciences specialty modules. The main language of instruction is English. The Bachelor study program "Radiological Sciences" is completed with awarding of the academic degree "Bachelor of Radiological Sciences". Admission takes place twice a year at the beginning of each academic semester. The first cohort of students was admitted to the study program in the academic year 2011/2012.

The Accreditation Commission of the AHPGS considers that all Accreditation Criteria are fulfilled and adopts the following decision:

The Bachelor study program "Radiological Sciences" is accredited for the duration of five years until September 30, 2029.

For further development and enhancement of the study program, as well as of the University as a whole, the Accreditation Commission of the AHPGS supports the recommendation articulated in the Assessment Report.