

# **Assessment Report**

for the Application of
Inaya Medical College (IMC),
College of Applied Medical Sciences,
Department of Nuclear Medicine Technology,
for the Accreditation of the Bachelor Study Program
"Nuclear Medicine Technology"
(Bachelor of Nuclear Medicine Technology)

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Decision

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#### 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's programs in the fields of health and social sciences, as well as in related domains, such as law or economics. By implementing 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 fulfilling the quality assurance, too.

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). Starting from 2009, the AHPGS has been listed in the European Quality Assurance Register (EQAR).

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<sup>1</sup>:

- 1. Program aims and learning outcomes
- 2. Curriculum design
- 3. Personnel
- 4. Facilities and learning resources
- 5. Study process and student assessment
- 6. Program and quality management
- 7. Gender equality and equal opportunities

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<sup>&</sup>lt;sup>1</sup> Approved by the AHPGS Accreditation Commission

The external assessment procedure is carried out in four steps:

## 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 fulfill the assessment spheres as well as the AHPGS standards. As a result, the AHPGS produces a summary (see Sections 2-5), 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 agreed upon accreditation. Consequently, the experts comprise a short summary regarding the study programs.

## III. On-site visit (peer-review)

The experts carry out an external on-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. This provides 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 and methods of assessment (selection of students, assessment of achievements, students' support), as well as of the program management (program administration, external assurance of study quality).

Following the on-site visit, the expert group issues the expert 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 so that it can issue a response opinion.

The expert 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 summary comprised by the AHPGS, the expert report, as well as the University's response opinion. These documents represent the basis for the commission's decision regarding the recommendation for accreditation of the study program. Consequently, this 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 Overview

#### 2.1 Procedure-related documents

The Inaya Medical College (IMC), also referred to hereinafter "the University", delegated the task of accrediting the following Bachelor study programs at to AHPGS: "Biomedical Technology", "Clinical Laboratory Sciences", Emergency Medical Services & Critical Care", "Nuclear Medicine Technology" and "Respiratory Therapy".

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 Self-evaluation report or SER) of the University (hereinafter the University) was submitted to the Accreditation Agency in Health and Social Science (AHPGS) in electronic format on January 18, 2021. The contract between the University and the AHPGS was signed on the May 15, 2020.

On May 23, 2021 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 June 8, 2021 the University submitted the answers to the open questions and explanatory notes (hereinafter AOQ) to the AHPGS in electronic format.

The present document presents the summary of the AHPGS for Bachelor study program "Nuclear Medicine Technology". The first cohort for this program was admitted in 2011.

The application documentation submitted by the University follows the outline recommended by the AHPGS. Along with the application request towards accreditation of the Bachelor study program "Nuclear Medicine Technology", 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 "Nuclear Medicine Technology":

Annex 01	Module Descriptions
Annex 02	Teaching Matrix
Annex 03	CVs Teaching Staff
Annex 04	Department Structure
Annex 05	Overview Faculty Staff & Budget List
Annex 06	Course Specifications
Annex 07	Field Experience Specification
Annex 08	Program Specification
Annex 09	Student Handbook
Annex 10	Internship Logbook
Annex 11	Study Plan
Annex 12	Declaration
Annex 13	Graphical Overview
Annex 14	Overview Cooperation Partners
Annex 15	Book Requests

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

Annex 01	Study and Examination Bylaws
Annex 02	Academic Advising Policy
Annex 03	Employment Policy
Annex 04	Professional Development Policy
Annex 05	Student Handbook
Annex 06	Internship Regulations

Annex 07	Members of Student Rights & Responsibilities Committee
Annex 08	Promotion Policy
Annex 09	Recruitment and Hiring Policy
Annex 10	Personal Tutoring Policy
Annex 11	Library Policy
Annex 12	Content Student Research Day
Annex 13	Statute and Regulations
Annex 14	Assessment Policy
Annex 15	Internal Quality Manual
Annex 16	Research Plan 2017-2022
Annex 17	Research Implementation 2017-2022
Annex 18	Registration & Graduation Policy
Annex 19	Specification and Report Policy
Annex 20	Survey Policy
Annex 21	Scientific Research Unit Policy
Annex 22	Internal Audit Manual
Annex 23	Internship Policy
Annex 24	Peer Observation Policy
Annex 25	Research Code of Ethic
Annex 26	Benchmark Report
Annex 27	Credit Transfer Committee
Anne 28	Internal Quality Handbook
Annex 29	Academic Advisory Implementation
Annex 30	Professional Development Program
Annex 31	Professional Development Unit

Annex 32	Budget Policy
Annex 33	Organizational Structure
Annex 34	Academic Accommodation and Access for Students with Disabilities
Annex 35	Student Learning Outcomes Development
Annex 36	IMC License
Annex 37	Faculty Overview

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.

# 2.2 Study program

# 2.2.1 Structural data

University	Inaya Medical College (IMC)		
Faculty/Department	College of Applied Medical Sciences		
Cooperation partner	Local, regional governmental and private Hospitals		
Title of the study program	"Nuclear Medicine Technology"		
Degree awarded	Bachelor of Nuclear Medicine Technology		
Form of studies	Full-time, on-campus		
Organisational structure	Sunday to Thursday 08:00 - 17:00		
Language of Studies	English (however, some first-year modules in Arabic)		
Period of education	Eight Semesters (Common First Year included) + one- year non-credit rotary internship		
Credit Points (CH) according to the Credit Hour System	130 Credit Hours (equals 268 ECTS Credit Points)		
Hours/CP	1 hour of lecture = 1 CP 2 hours of laboratory = 1 CP 3 hours of clinical training/week = 1 CP		

Workload	Total:	8050 hours	
	Contact:	1365 hours	
	Lab/Practical:	930 hours	
	Clinical:	360 hours	
	Individual Work:	3080 Hours	
	Final Exam:	235 Hours	
	Internship:	2.080 Hours	
Launch date of the study program	2011		
First accreditation	Program has not yet been accredited		
Time of admission	Twice a year at the beginning of each academic se-		
	mester		
Number of available	100 (distributed b	etween male and female students)	
places on the program			
Number of enrolled stu-	- 91 (curren	currently enrolled; 2019-2020)	
dents by now		ates (since 2011)	
Particular enrollment con-			
ditions		its equivalent from inside or outside	
		m of Saudi Arabia (not older than	
	five years)		
Tuition fees 55,000 SAR per year			

Chart 1: Structural data of the study program

#### 2.2.2 Qualification objectives and employment opportunities

As the University states that the profession of Nuclear Medicine Technology is considered as one of the fastest Health Professions in its sophistication and change, especially regarding the scientific and technical progress (SER 1.3.1). The "Nuclear Medicine Technology" program (NMT) is ultimately aimed at preparing students to develop the ability to assess, plan, implement and carry out the proper NMT procedures for patients according to their needs and health conditions. The Nuclear Medicine Technologist performs various procedures under the supervision of a physician. They are trained on the safe use and control of radioactive pharmaceutical agents, the safe administration of these agents to patients, the application of research techniques to Nuclear Medicine and the performance administrative procedures necessary to maintain appropriate records (SER 1.3.2).

According to the University, the graduates of the "Nuclear Medicine Technology" program will be prepared to be leaders and innovators in their medical practice as well as problem solvers as individuals and within a team of Nuclear Medicine practice. This is accomplished by integrating evidence-based knowledge, practical, clinical, and behavioral skills, into their clinical reasoning and clinical decision.

According to the Saudi Qualification Framework (SAQF), the "Nuclear Medicine Technology" program identified students learning outcome in the three main domain "Knowledge", "Skills", and "Competence" (Annex 5):

Knowledge Skills are chiefly concerned with the ability to recognize the essential basics of biological sciences related to nuclear medicine; memorize the basic concept of radiation physics and radiation protection; identify the basic knowledge of radiopharmacy and its preparations; describe the instrumentations and technological advances in nuclear medicine as well as state the underlying principles and concepts in planning research study in nuclear medicine.

The domain "Skills" describes the following expectations towards the students:

- Apply the required personal/professional attributes and skills related to efficient nuclear medicine patient care,
- prepare different radiopharmaceuticals and handle the radioactive materials and its measuring equipment in a safely manner,
- perform appropriate technical procedures for different nuclear medicine procedures using different modalities,
- summarize the proper learning experiences to exercise critical thinking and judgement in identifying and solving problems with intellectual independence.

The domain "Competences" describes the ability to appraise a learning culture to assume responsibility for planning, implementing and monitoring progress towards the goal of nuclear medicine practice; apply professional behavior and present oneself in a professional manner in the nuclear medicine field; demonstrate competency in computer based information and data processing; operate communication in different ways that are congruent with situational needs and cultural environment in nuclear medicine as well as construct the nuclear medicine procedures on patients properly and practice in a safe manner to minimize the risk to patient, self and others in nuclear medicine.

According to the University, nowadays, the nuclear medicine technology plays an important role in the health care sector, as it is going to have its functional entity among the diagnostic departments as well as oncology departments. The Saudi health care sector is in demand for a large number of nuclear medicine technologists. Right now, the Inaya Medical College is the only college that implemented a "Nuclear Medicine Technology" program. The Ministry of Health in KSA is establishing nuclear medicine units in every hospital within the Kingdom of Saudi Arabia, which will provide a large number of job opportunities (SER 1.4.2).

According to the last graduates survey, the employment percent is 86 % for male graduates and 60 % for female graduates. Internationally, according to the report published in August 2018 from the U.S. department of labor, the employment of nuclear medicine technologists is projected to grow 10 % from 2016 to 2026, faster than the average for all occupations. An aging population may also lead to an increasing need for nuclear medicine technologists who can provide imaging to patients with certain medical conditions.

According to the University, Nuclear medicine technologists are currently in high demand across the country. Numerous career opportunities are available in virtually every area of the country. Graduates can work in a variety of work environments such as hospitals or clinics as nuclear medicine technologists. Here, management or administrative positions as well as administrative duties are possible. Administrative duties include supervising other technologists, students, and other staff, assisting in the procurement of supplies and equipment, documenting laboratory operations, implementing radiation safety protocols, and taking an active role in radiation reduction programs. Participation in departmental quality assurance or quality assurance and improvement projects and participation in patient treatment planning are also possible responsibilities. Many government agencies employ nuclear medicine technologists in quality control and inspection. Here, they ensure that hospitals and clinics comply with all and clinics comply with all safety and use guidelines. Other opportunities exist in sales and marketing of radiopharmaceuticals and related technologies. Completion of a master's degree or professorship can provide additional opportunities in nuclear medicine education (SER 1.4.1).

# 2.2.3 Modularization and exam system

The program comprises 45 obligatory modules. On average, there are six modules provided 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 "Nuclear Medicine Technology" program allows students for 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. On average, students obtain 16 credit hours per semester.

#### The list of modules offered:

Nr.	Title	Sem.	СР
	First Academic Level		17
BIOS 101	Biostatistics	1	2
COM M 101	Communication Skills	1	1
ISLM 101	Introduction to Islamic Culture	1	2
COMP 101	Computer for Health Sciences	1	2
ARAB 101	Arabic Language	1	2
ENGL 101	English Language (I)	1	8
	Second Academic Level		17
BIOL 101	Biology	2	3
ETH 101	Ethics in Health Care	2	1
PHYS 101	General Physics	2	3
CHEM 101	Introduction to Chemistry	2	3

ENGL 102	English Language (II)	2	4
ENGL 105	Medical Terminology		3
	Third Academic Level		19
ISLM 102	Islamic and Construction of Society	3	2
BMS 231	Anatomy, Embryology & Histology	3	4
BMS 232	Physiology	3	3
BMS 233	Biochemistry	3	3
BMS 234	Medical Ethics	3	2
NMT 231	Introduction to Nuclear Medicine Technology	3	3
NMT 232	Radiation Biology and Safety	3	2
	Fourth Academic Level		17
NMT 241	Radiopharmacy	4	3
NMT 242	Nuclear Medicine Instrumentation	4	3
NMT 243	Nuclear Physics	4	3
NMT 244	Introduction to Nuclear Medicine Laboratory	4	3
NMT 245	Computer Methods in Biomedical Technology	4	3
NMT 246	Nuclear Medicine Administration	4	2
	Fifth Academic Level		17
ISLM 103	The Islamic Economic System	5	2

ARAB 103	Writing in Arabic Language	5	2
NMT 351	Nuclear Medicine Methodology (I)		3
NMT 352	Overview – Clinical Nuclear Medicine	5	4
NMT 353	Clinical Nuclear Medicine (I)	5	3
NMT 354	Cardiovascular Monitoring	5	3
	Sixth Academic Level		17
ISLM 104	Fundamental of Islamic Political System	6	2
BMS 361	Principles of Learning & Health Education	6	2
NMT 361	Nuclear Medicine Methodology (II)	6	3
NMT 362	Nuclear Medicine Patient Care	6	3
NMT 363	Clinical Nuclear Medicine (II)	6	3
NMT 364	Advanced Clinical Practice in Nuclear Medicine (I)	6	4
	Seventh Academic Level		13
NMT 471	Nuclear Medicine Methodology (III)	7	3
NMT 472	Nuclear Medicine Research Methods	7	3
NMT 473	Clinical Nuclear Medicine (III)	7	3
NMT	Advanced Clinical Practice in Nuclear Medicine (II)	7	4
	Eighth Academic Level		13
NMT 481	Current Issues for Nuclear Medicine Professions	8	3

NMT	Independent Studies	8	3
482			
NMT	Nuclear Medicine Technology Seminar	8	3
483			
NMT	Advanced Clinical Practice in Nuclear Medicine (III)	8	4
484			
	Total:		130

Tabelle 2: Modulübersicht

The module descriptions (Annex 03) contains information about each courses' name and code, in which semester it is offered, its number of credit hours, its language of instruction, intended learning outcomes, course contents and assessment methods.

The study program is structured as follows (SER 1.3.4):

Semester 1-2 (Common First Year): The successful completion of the common first year (CFY) is a prerequisite for all study programs at Inaya Medical College. All modules offered in the CFY are designed to achieve certain objectives that would serve the students during the more advanced level of their studies. Intensive English language modules are necessary as the English language is the medium of instruction for all programs offered at the University. The basic science modules such as Biology, Chemistry, Physics are also necessary for students planning to join the applied medical sciences programs.

Semester 3-4: Students are taught the basic sciences required for nuclear medicine practice such as anatomy, physiology, biochemistry, radiation biology, radiochemistry, nuclear physics, instrumentation computer in medical imaging and administration.

Semester 5-8: In the following years students will be trained to operate different imaging equipment that creates images of areas of a patient's body. Furthermore, students gain the experience to prepare radioactive drugs and administer them to patients using safe and painless techniques in hospitals and centers where the nuclear medicine departments are available. During the last year the students will gain the required knowledge to establish a research project, and also will be able to demonstrate different topics in front of others.

After the successful completion of the eighth semester, students are requested to complete a one-year, non-credit bearing mandatory internship clinical training in one of the affiliated (local and regional) hospitals, where their skills are reviewed and fine-tuned under expert practitioner's follow up before they entered into the workplace (SER 1.2.1). By the end of the internship year, the students should be able to perform as a competent entry level nuclear medicine technologist who is able to provide safe, legal, ethical and patient-centered quality care to fulfill their career goals and the community needs.

The internship year in the "Nuclear Medicine Technology" program is designed to follow a systematic step wise approach to facilitate first observing and reviewing and then practicing of all psychomotor skills and competencies gained during the theoretical and practical session during the college academic years. For that purpose, the "Nuclear Medicine Technology" has developed both the field experience specification (Annex 07) as well as the clinical training and internship manual (Annex 10). The internship manual also describes the rules and responsibilities of the clinical preceptors, the criteria of student evaluations, the interns' responsibilities rights and code of conduct. It also integrates all clinical skills, competencies and patient encounters mandatory for the professional practice of entry level paramedics. The rotation plan of the NMT students within the clinical training facility, the overall objective of the rotation and the individual skills to be practiced during this rotation are also defined.

The "Nuclear Medicine Technology" department designates an Internship Coordinator, who is fully responsible for the clinical training and the internship. The main mission is to coordinate between the departments and the directorate of the clinical training as well as the internship in the colleges. The main tasks also include supervising the training operations, organizing field visits and writing training reports. The internship coordinator also meets the students as well as the training instructor every three months in order to get a feedback of the development.

The "Nuclear Medicine Technology" program allows the students for mobility between colleges/universities inside the Kingdom of Saudi Arabia and international Universities. Students are admitted under the transfer policy according to each University/College's eligibility requirements (SER 1.2.9). Furthermore, many of the graduates can pursuing their higher education in Canada, USA, and

European countries. The curriculum implemented in the "Nuclear Medicine Technology" maintains consistency with employment needs nationally and internationally and follows nuclear medicine technologists' criteria explained by the Society of Nuclear Medicine and Molecular Imaging (SNMMI) guidelines and retains its harmony with the practices of the Saudi Council for Health Specialties (SER 1.2.8).

At the Inaya Medical College, research is an integral part of all study programs. In the "Nuclear Medicine Technology" program, research is incorporated to promote evidence-based nuclear medicine practice. Therefore, there are two courses (NMT 472 in level seven and NMT 482 in level eight) which directly deal with research methods and research study. Furthermore, the College of Applied Medical Science, where the "Nuclear Medicine Technology" program is located, conducts a scientific day every year in order to motivate the research activities of the faculty and the students. The research committee will announce the notification to submit the research studies in form of scientific posters and oral presentations. The best papers are awarded with prices and certificates at the research day. The student who excel are given special opportunities to participate in scientific conferences all over KSA (SER 1.2.7).

As the University states, the module teachers in the "Nuclear Medicine Technology" program apply a variety of teaching and training methods such as interactive lectures, discussions, group work, case studies, simulation, case scenarios, problem-based learning, practice-based learning in skill laboratories and hospital clinical experiences, etc. (SER 1.2.4).

The assessment measures are designed to evaluate the effectiveness of teaching methods for delivering the program's intended learning outcomes. A range of assessments strategies are being used that matches all aspects of the instructional plans for different modules. The selection of appropriate assessments also matches courses and program objectives. Summative assessment is carried out in the form of mid-term and final examinations. Formative assessment methods are used to track the progress of each student during the semester, such as quizzes, class participation and discussion, team work projects etc. (SER 1.2.3)

In the event of absence from the first and second mid-term exam and also the final exam, students can apply to the office of the student affairs department

with the supporting documents. As per the policy of the college these applications are reviewed and approved for makeup exam by the Vice Dean's office (SER 1.2.3).

In all courses, the students are assessed by a grade according to the following scale as shown below:

Code	Score	Points	Meaning
A+	95-100	5	Exceptional
А	90 less than 95	4.75	Excellent
B+	85 less than90	4.5	Superior
В	80 less than 85	4	Very Good
C+	75 less than 80	3.5	Average
С	70 less than 75	3	Good
D+	65 less than 70	2.5	High Pass
D	60 less than 65	2	Pass
F	less than 60 0	0	Fail

The academic grade is a statement of a student's academic progress that includes all the courses he or she studies in each semester with their codes, numbers, credit hours, the obtained grades, the values and the codes of those grades. The record also shows the Grade Point Average (GPA) and the Cumulative Grade Point Average as well as a statement of the general grade in addition to the courses a transferred student has been exempted from (SER 1.2.3).

Regarding regulations on compensation measures for students with disabilities and chronical illnesses, the University states that the "Nuclear Medicine Technology" program students requires to be free from physical disabilities to be able to handle the radioactive materials safely and also to operate the gamma

camera and PET-CT machine successfully. Therefore, students with physical and mental handicap affecting their ability to complete the study program are not accepted to the program (SER 1.2.3).

For the regulations regarding transfer of student from and to other universities as well as the transferring credit for any course taken please see SER 1.5.3.

## 2.2.4 Admission requirements

For the official admission requirements, please refer to Annex A.

In order to be accepted to the study program, students must

- Have the general secondary school certificate (Science Stream) or its equivalent from inside or outside the Kingdom of Saudi Arabia, which is not older than five years,
- have a record of good conduct,
- successfully pass any examination or personal interviews as determined by the College Council,
- obtain the approval of his employer, (if an employee of any governmental or private agency),
- not be dismissed from any other College for academic or disciplinary reasons.

# 2.3 Study conditions and quality assurance

# 2.3.1 Human resources

According to the University, the workload in the "Nuclear Medicine Technology" program is managed by 1 associate professor 4 assistant professor, 6 lecturers and 4 teaching assistants for the male section and 3 assistant professors, 6 lectures and 4 teaching assistants for the female section.

The full teaching load of all regular academic staff members is 14 credit hours per week for professors and associate professors, 16 credit hours per week for assistant professors and 18 credit hours per week for lecturers and instructors.

The Inaya Medical College has regulations for the recruitment and retention of the teaching staff. The recruitment of faculty members is based upon the request of the Department Council along with the College Council. The hiring must be supported by the Board of Trustees (Annex 09 General Documents).

To be appointed as Instructor and lecturer, the candidates must hold a master degree. Assistant and adjunct professors must hold a doctorate degree. To be appointed as an associate professor, the candidate must hold a doctorate degree, four years' experience as a faculty in recognized university in the same discipline and a group of scientific research published in refereed journals. To be appointed to the level of a full professor requires a doctorate degree and at least eight years' experience as a faculty of a recognized university, including at least four years after promotion to the level of associate professor as well as scientific research published in refereed journals (SER 2.1.2).

The faculty's qualifications are documented in the CVs submitted by the University (Annex 01).

According to the University, the "Nuclear Medicine Technology" program maintains a faculty development program coordinator which, based on the annual analysis of training needs, and as part of the program annual improvement plan, prepares a training plan for the faculty, which is then conveyed to the IMC professional development unit. In addition to that, the faculty members at the "Nuclear Medicine Technology" program are regularly invited to lectures, trainings, seminars and workshops by the professional development unit (PDU). The activities conducted by the PDU comprise educational development workshops in teaching and assessment, research, quality assurance and the use of technology to enhance learning. Faculty member who attend local and international conferences may also be eligible to have financial support by the college (SER 2.1.3).

### 2.3.2 Facilities

The "Nuclear Medicine Technology" program is divided into male and female sections. The University ensures, that both sections are equipped with classrooms, auditoriums, comfortable study spaces for both individual and group work, skills and simulation labs, computer labs, faculty offices and administration offices. Furthermore, Wi-Fi access is available throughout IMC building enabling students and faculty to access internet anywhere on the campus.

The program specific premises include 12 classrooms (6 for male and 6 for female). Each classroom has a seating capacity of around 30 to 40 students and is equipped with a smart board, white board, data show and projector. Furthermore, there are 2 laboratories in the "Nuclear Medicine Technology" department: A "gamma camera laboratory" and an "educational hot laboratory". Each one has a seating capacity of 20 students and contains a gamma camera single head, qc phantom and software work station (gamma camera laboratory) as well as table top preparation module, dose calibrator, educational dry technetium generators, survey meter, injection kit, decontamination kit (educational hot laboratory) all of these facilities can be used for both male and female students (SER 2.3.1)

For the Library Policy please see Annex 11 (General Contents). The library building has two floors, one dedicated for the female campus and one for the male campus. Each has a stack capacity of 30.000 volumes and seating space for about 200 library users. It is also equipped with 14 computer work stations for the male and 16 computer work stations for the female floor. The opening hours are from 08:00 am to 4:00 pm on Saudi weekdays. The Central Library has extended opening hours from 04:00 pm to 6:00 pm for male and female students with afternoon classes.

Furthermore, Inaya Medical College holds subscriptions to numerous online resources (nearly 6.500) through ProQuest database.

#### 2.3.3 Quality assurance

For a detailed overview of the Quality Assurance and Management System, please refer to Annex 15 (General Contents).

IMC has established a Quality Assurance and Management System, that is targeted at ensuring that the College adopts a College wide system for continuously planning, assessing and improving the effectiveness and efficiency of its teaching and learning services, research projects and community service activities. These quality management practices comply with applicable regulatory requirements locally and internationally, including those of the KSA Ministry of Education and the National Center for Academic Accreditation and Assessment (NCAAA). The College's Quality Assurance and Management System covers the entire range of education provided by the College, including research, supportive services etc.

The quality assurance of the teaching methods in the "Nuclear Medicine Technology" program is based on several methods such as peer observation, course evaluation surveys, program evaluation surveys and student experience surveys. Additionally, the "Nuclear Medicine Technology" program relies on the Saudi Qualification Framework (SAQF) which indicate the programs learning outcomes, the different qualification levels, credit system and recognition of prior learning.

Based on the course report, the course coordinators shall make recommendations to the quality assurance committee of the department and then to the Department council. Eventually, the revision of the course learning outcomes, the adjustment of teaching methods, evaluation methods, course material etc. is discussed with the whole teaching staff of the "Nuclear Medicine Technology" program. Annually, there are several indirect assessments for learning outcomes, as a result of various surveys from stakeholders, including students, faculty, employers and administrators. These information data will be analyzed and reviewed by the department council, which then provides an action plan (if needed) to the college council.

To evaluate the practical relevance of the "Nuclear Medicine Technology" program, periodic information is received from all the stakeholders, graduates, and professional and regulatory bodies such as the Saudi Specialties and Healthcare facilities, medical centers, etc. Their evaluation of the curriculum is discussed in the Department Council and if applicable, implemented in the annual improvement plan.

For students' support, an academic advisor is responsible for providing educational guidance and assistance by planning schedules, recommending courses and determining appropriate education solutions for each student. He also provides students with information about alternatives, limitations and possible consequences of academic decision, e.g. adding, dropping and withdrawing from courses, change of program, editing timetable etc. It is also possible for students to change the advisor if they are not satisfied.

Regarding gender equality at Inaya Medical College, it states that the faculty as well as the students from both, male and female sections have exactly the same rights and responsibilities governed with the support of the college by rules.

Regarding students with disabilities and chronical illnesses, the University states that the "Nuclear Medicine Technology" students have to be fit and healthy to fulfill the requirements and conditions of the program (SER 1.6.10).

# 2.4 Information about the University

Inaya Medical College is a private higher education institution, located in the upper north area of Riyadh, Kingdom of Saudi Arabia, which was established in 2011. Currently, more than 2.000 students enrolled. It offers eight undergraduate academic degree programs which namely are "Clinical Laboratory Sciences", "Nuclear Medicine Technology ", "Biomedical Technology ", "Radiological Science ", "Dental Health Care ", "Respiratory Therapy ", Emergency Medical Services and Critical Care "and "Nursing Science ". All programs have received license from the Ministry of Education – Higher Education.

Inaya Medical College was established to fulfil the national development plans, goals of higher education system, community and student urgent needs for high calibre health care professionals. In fact, the College now is playing integral role in serving its community and delivering high quality education to diverse students.

# 3 Expert report

# 3.1 Preliminary remarks

The Accreditation Agency in Health and Social Sciences (hereinafter AHPGS) was commissioned by Inaya Medical College (hereinafter the University) to accredit the study program "Nuclear Medicine Technology" (Bachelor of Nuclear Medicine Technology).

The on-site visit evaluation of the study program "Nuclear Medicine Technology" as well as the study programs "Clinical Laboratory Sciences,", "Respiratory Therapy", "Emergency Medical Services and Critical Care" and "Biomedical Technology" offered at the Inaya Medical College was carried out on November 15-16, 2021 Riyadh, Saudi Arabia.

The documents of the University, the expert's feedback on these documents and the results of the discussions with the representatives of the University during the on-site visit serve as the foundation for the statements made in the expert report.

The following experts were appointed by the Accreditation Commission of AHPGS for the evaluation of the study program.

## Prof. Dr. Gerlinde Egerer, MD

Professor of Internal Medicine and acting chief phycician at St. Vincentius Hospital, Heidelberg, Germany. Spezialisation in hematology and internal medicine, infectious diseases and palliative care; Coordinator of the Sarcoma center Heidelberg, Germany; Chairman of the Ethics Committee of the Landesärztekammer of Baden-Württemberg

## Prof. Dr. Stephan Lehnart

Professor of Translational Cardiology, Director Heart Research Center Goettingen, Department of Cardiology and Pneumology, University Medical Center Goettingen, Georg-August-University Goettingen, Germany; Principal Investigator of the German Center for Cardiovascular Research (DZHK); International Member of the Biomedical Research and Medical Technology Center (BioMET), University of Maryland Medical School

#### Mr. Prof. Dr. Gerd Mikus

Professor of Clinical Pharmacology, Physicist, Senior Scientist at the Department of Clinical Pharmacology and Pharmacoepidemiology at the Ruprecht-Karls-University of Heidelberg; Deputy head of the Ethics Comittee of the

Landesärztekammer Baden-Württemberg, Germany

# Mr. Dr. Maximilan Dilger

Licensed physician and currently student of Dentistry at the Albert-Ludwigs University Freiburg, Germany

#### Mr. Dr. Rolf Heusser

Coordinator in National Research Program 74 "Smarter Health Care"; Former Director of National Institute for Cancer Epidemiology and Registration, Zurich, Switzerland; Former director of Swiss Accreditation and Quality Assurance Agency in Higher Education. Former Chairmen of the European Consortium of Accreditation in Higher Education (ECA). Lecturer at ETH Zürich and University of Zurich

#### Ms. Tina Hartmann

Lecturer at several universities; Qualification as medical technical radiology assistant at Klinikum Dortmund Germany; Study of medical pedagogy with diploma as a medical pedagogue; Course leader "practical guidance and mentoring for medical-technical health professions" at the Klinikum Dortmund, Germany; Adaptation Course for Foreign Acquired Medical-Technical Radiology Assistance at Klinikum Dortmund, Germany

#### Dr. Sylvia Kaap-Fröhlich, MBA

Head of Careum Educational Development, Zurich, Switzerland;

Qualification as biomedical analyst; doctor in pharmacy; educational course at the Technical University of Dresden and MBA in Education and Science Management from the University of Oldenburg, Germany

## Ms. Ivonne Ender

Education manager in the medical field of imaging Procedures (BGV) at the University Hospital Zurich (USZ); Former Deputy Head MTRA at the Institute for Diagnostic and Interventional Radiology (DIR) at the University Hospital Zurich (USZ), Switzerland

# Mr. Prof. Dr. Klaus Runggaldier

Professor of Medical Education, Dean at the Faculty of Health Sciences at the MSH Medical School Hamburg, Germany, Paramedic, Managing Director of Falck Rettungsdienst GmbH, former Managing Director of Emergency Medical Services and Head of Medical Training Center and Quality Manager of Malteser Hilfsdienst on federal level

According to the Rules for the Accreditation of Study Programs and for System Accreditation (determined by the decision of the Accreditation Commission, of December 8, 2009 in the version of February 20, 2013, Drs. AR 20/2013), the task of the experts in the accreditation procedures is to evaluate the education concept of a specific study program as well as to estimate the possibility of its successful implementation. This concerns, in particular, qualification objectives of the study program, its conceptual integration into the system of education, the concept of the study program, feasibility of the content and scope of studies, the examination system, study-relevant collaborations, personnel, material and spatial resources, transparency and documentation, application of the results of quality assurance for further development of the study program (it is especially important to present the analyses and evaluation results of student workload, academic accomplishments and employment of graduates, which are to be documented and taken into account within the framework of continuous development of the study program), as well as the provision of gender equality and equal opportunities.

The on-site visit of the experts is carried out in accordance 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). After the announcement of the accreditation decision, the expert report is going to be published as a part of the Final Report.

## 3.2 Basic information about the study program

The main objective of the Bachelor study program "Nuclear Medicine Technology" (NMT), offered at the College of Applied Medical Sciences at the Inaya Medical College, is to graduate competent professional Nuclear Medicine technologists through quality of education, research and community services to meet the complexity and diversity of healthcare settings. The study program requires the obtainment of 130 credit hours (CH) according to the international credit hour system (this equals 268 ECTS Credit Points). One CH is equal to one contact hours of lectures, two hours of practical or lab training and three hours of clinical training per week.

Students' performance is evaluated based on the results of a Grade Point Average (GPA) and the Cumulative Grade Point Average (CGPA). The GPA is calculated by dividing the sum of the grade points (with 5 being the highest and 0 the lowest achievable points grade) received in all courses registered during one

semester by the total credit hours of the same courses. CGPA is calculated by dividing the total credits received from all courses a student has completed since joining the program by the sum of the credit hours of these courses. According to the University regulations, students with a GPA score of at least 2.00 are considered to have successfully completed the respective course. In order to successfully complete the whole program, students have to pass all obligatory examinations with the minimum grade of 2.00 CGPA score.

The total workload of the program constitutes 8,050 hours, of which 1,365 are theory hours, 930 are practical/lab hours, 360 hours are clinical hours, 235 hours are for the final exam, 3,080 hours are individual work and 2,080 hours for the internship. The Bachelor study program "Nuclear Medicine Technology" is a full-time study program with a regular duration of eight semesters/four years plus one year of internship. The program curriculum consists of 45 obligatory courses, of which 12 are taken in the common first year (CFY).

Admission requirements of the program include the possession of a Saudi Secondary School Certificate (Science Stream) as well as a record of good conduct. Upon completion of the study program, students are awarded with the academic degree "Bachelor of Nuclear Medicine Technology". The average students' intake in the "Nuclear Medicine Technology" program is 50 male and 50 female students each year. The initial enrolment for the program is twice a year.

The first batch of students has been admitted to the program in the year 2011. Currently there are 48 students (13 male and 35 female) studying in the "Nuclear Medicine Technology" program. The main language of instruction is English. The tuition fees are 3.500 SAR (approximately 830 Euro) registration fee and 58.500 SAR (14.000 Euro) per year.

## 3.3 Expert Report

The on-site visit was carried out on November 15 and 16, 2021, according to the previously agreed schedule. Representatives from the head office of AHPGS accompanied the expert group.

The expert group met on November 14, 2021 for preliminary talks. They discussed the submitted application documents and the results of the written evaluation as well as questions that had been raised. Furthermore, they prepared the plan of the on-site visit at the University.

During the on-site visit, experts conducted discussions with the Dean and Vice Dean of the University, the HR and Finance Manager, the Head of Quality Assurance, the Chair, Vice Chair and the teaching staff of the program "Nuclear Medicine Technology" 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 see the equipment and the capacity of the laboratories.

The expert report is structured according to the "Accreditation Criteria for International Program Accreditation" which are 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 is going to be described and analyzed in a comprehensive manner below. The documents submitted by the University, the experts' feedback on the documents, the observations made during the onsite visit, the results of discussions with the representatives of Inaya Medical College, the College of Applied Medical Sciences and the Departments serve as the foundation for the statements made in the expert report.

## 3.3.1 Program aims and their implementation

Inaya Medical College (IMC) aspires to be a leader in applied medical sciences, health care education and research. IMC is committed to develop highly qualified and competent graduates able to provide leadership and excellence in services to meet the health needs of the nation and the global community through a wide range of programs.

During the on-site visit, the experts were able to convince themselves that the main objective of the College of Applied Medical Sciences, where the "Nuclear Medicine Technology" program is offered, is to create an environment for the students of general education which promotes tolerance and seeks knowledge throughout life and dedication to freedom of expression. The College of Applied Medical Sciences recognizes its role as an integral part of society, participating in offering qualified health education to boost healthcare in society.

The Bachelor study program "Nuclear Medicine Technology" pursues specific qualification objectives. The program's goal is to prepare its students to be

highly competent professional Nuclear Medicine technologists through education, research and community services to meet the complexity and diversity of health care settings. The graduates are prepared to develop the ability to assess, plan, implement and carry out the proper NMT procedures for patients according to their needs and health conditions.

As IMC explains on-site, nuclear medicine technologists are currently in high demand across the country. Graduates can work in a variety of work environments such as hospitals or clinics as nuclear medicine technologists. Management or administrative positions as well as administrative duties are possible. Administrative duties include supervising other technologists, students and other stuff, assisting in the procurement of supplies and equipment, documenting laboratory operations, implementing radiation safety protocols and taking an active role in radiation reduction programs. Participation in departmental quality assurance or quality assurance and improvement projects and participation in patient treatment planning are also possible responsibilities. Many government agencies employ nuclear medicine technologists in quality control and inspections. According to IMC, they ensure that hospitals and clinics comply with all safety and use guidelines. Other opportunities exist in sales and marketing of radiopharmaceutical and related technologies.

The learning objectives of the "Nuclear Medicine Technology" program are based on the Saudi Qualification Framework (SAQF) of the Kingdom of Saudi Arabia (KSA) and are categorized in three main domains such as "Knowledge", "Skills" and "Competence". According to IMC, the institutional accreditation by NCAAA is already done and all programs are verified by the Ministry of Education.

The experts confirm that the study program 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.

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

#### 3.3.2 Structure of the study program

The Bachelor study program "Nuclear Medicine Technology" is a full-time study program with a regular duration of four years (eight semesters) plus internship

(two semesters / twelve months). The program curriculum consists of 45 courses, of which twelve are to be taken in the common first year. This study period is followed by a non-credit bearing but obligatory one-year internship. Hence, students require five calendar year to fully complete the program cycle.

The successful completion of the first common year (FCY) is a prerequisite for all students. All modules offered in the FCY are designed to achieve certain objectives that will serve the students during the more advanced level of their studies. As the staff of IMC explains, the English language modules are necessary as the English language is the medium of instruction for all programs offered by IMC (except the Arabic language modules). The college explains that an additional extracurricular opportunity is also offered at the request of students by allowing students to improve their language skills in an "English club". The evaluators note this with approval. Furthermore, basic science modules such as biology, chemistry, physics etc. are also implemented in the first common year, as well as communication skills, IT and biostatistics in order to prepare the students for their study programs.

After the first common year, the students start accumulating more program-specific knowledge for the remaining three years. Thus, the experts conclude that students acquire specialized and program-specific knowledge as well as interdisciplinary knowledge and professional, methodological and general competences. Furthermore, 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. Nevertheless, the curriculum appears very detailed, consisting of a large number of more or less isolated courses and, therefore, a lot of examinations. The experts therefore recommend that student workloads continue to be well evaluated so that adjustments can be made if necessary.

Professional skills are gained through practical hours in the College's laboratories (see also Criterion 5). In addition, students gain experience in clinical practice during the internship year, which they complete in cooperating hospitals or companies. During this year, students receive a comprehensive training in order to be able to provide safe, legal, ethical and patient-centered quality care. Although comprising a one-year full-time workload, the final internship year is not credit-bearing as it is not formally part of the study program but rather of the legal recognition/licensing process to the Saudi Arabian health system.

Expectations for students' qualifications and the structure of the internships are clearly defined in the "Internship Logbook". The experts appreciate that supervisors from both IMC and the clinic are assigned to oversee students during their internship. The department designates an Internship Coordinator who is fully responsible for clinical training and the internship. The main mission is to coordinate between the department and the clinical training and internship unit in the colleges. The main tasks also include supervising training operations, organizing field visits and writing training reports. The Internship Coordinator and the supervisor at the clinic / company meet periodically, usually three times a month. The students must provide the Internship Coordinator with a weekly report containing what he did during the week. The evaluation of the students during the internship is done according to an evaluation sheet which covers all stages and sections of the training. During the on-site visit, the students confirm that the University offers support in finding hospitals during the internship.

The study program has 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 expert's point of view, the requirements of this criterion are fulfilled.

## 3.3.3 Admission and Feasibility

The admission and procedures along with the requirements are properly documented and made publicly available. Admission requirements include a General Secondary School Certificate (Science Stream), or its equivalent from inside or outside the Kingdom of Saudi Arabia, which is not older than five years and a record of good conduct. Furthermore, the applicants must not have been dismissed from another university for disciplinary reasons. All newly admitted students are required to complete the Common First Year (CFY) before starting their undergraduate studies. As the Common First Year comprises medical foundations as well as basic knowledge in medical biology, chemistry and physics in order to compensate deficiencies from secondary school, the experts determine the admission procedure and requirements to be appropriate. They correspond to the standards of the study program. Nevertheless, the experts recommend implementing differentiated admission criteria for students with disabilities, as is already the case in other programs at the College of Applied Medical Sciences, such as "Emergency Medical Services and Critical Care" or "Respiratory Therapy".

The experts draw attention to the relatively high number of exams to be passed during the "Nuclear Medicine Technology" program. In order to prepare students for the level of difficulty and number of exams, the type as well as the date of the different examinations is defined and communicated to the students transparently at the beginning of the course. The experts confirm that the University takes measures to guarantee the feasibility of the study program despite the high workload. As a whole, the organization of the education process ensures the successful implementation of the study program.

On site, it became obvious that the teaching staff follows an "open-door-policy". The students confirm the supportive and easy communication between staff and students and emphasize that the teaching staff adequately reacts to students' questions. Furthermore, in the first week of each year, students and instructors alike undergo an orientation which familiarizes them with available support services. An academic advisor is responsible for a small number of students from the beginning of each semester. The academic advisor is responsible for providing educational guidance and assistance for students by planning schedules, recommending courses and determining appropriate education solutions for different type of students. He also provides students with information about alternatives, limitations and possible consequences of academic decisions such as adding, dropping and withdrawing from courses etc.

The experts find the support services at Inaya Medical College to be exemplary and conducive to the health and success of the student body. Since some of the students in the study program live further away, the experts recommend setting up a housing program to even attract students from outside Riyadh, nationally and internationally, to the "Nuclear Medicine Technology" program. During the discussion with the students, it became clear that the students would very much welcome this.

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

## 3.3.4 Examination system and transparency

Inaya Medical College uses a continuous assessment process to ensure the quality of education for its students. This is achieved by evaluating the performance of the student through a series of exams and tests that are scheduled during the academic semester. Students in the "Nuclear Medicine Technology" program are required to conduct a research project and write a Bachelor thesis

individually or within a group (module NMT482). Furthermore, the students are encouraged to write research papers and give presentations.

In the experts' point of view, the transparent information of examination methods and the examination schedule at the beginning of each term makes the great number of assessments during and at the end of each semester manageable. In the event of absence from the first and second assessment exams and also the final exam, student can apply to the office of the student affairs department with the supporting documents. As per the policy of the college these applications are reviewed and approved for makeup exam by the Students' right committee.

The experts conclude that the examinations, although numerous, serve to determine whether the envisaged qualification objectives have been achieved or not. These examinations are focused on students' knowledge. The requirements to students' performance in examinations are regulated and published. The frequency of examinations, as well as their organization, is appropriate.

From the expert's point of view, the requirement of this criterion is fulfilled.

## 3.3.5 Teaching staff and material equipment

In general, the "Nuclear Medicine Technology" program is carried out by 1 associate professor (male) 7 assistant professors (4 male and 3 female), 12 lectures (6 male and 6 female) and 8 teaching assistants (4 male and 4 female). They are all employed on a full-time basis. Considering the total of 48 currently enrolled students in the "Nuclear Medical Technology" program, the student-to-faculty-ratio is 1:2. The experts take positive note of the extremely favorable student-to-faculty-ratio.

New teaching staff is thoroughly briefed about the program and their teaching responsibilities before they start teaching. Students evaluate the performance of all teaching and other staff periodically.

Overall, the teaching and academic staff of the College of Applied Medical Sciences 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 expert group concludes that there is a strong corporate identity and positive group dynamics among the colleges and the program administration.

The experts find the amount of human resources allocated to the program to be sufficient to carry out its functions. The teaching staff is highly qualified. The teaching staff within the Bachelor program "Nuclear Medicine Technology" is in possession of academic and technical credentials and experience adequate to their tasks. 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 further their ability, which is confirmed during the talks with the staff on site.

During the on-site visit, the experts gained the impression that research is an important activity at Inaya Medical College. The experts therefore warmly welcome and support Inaya Medical College's efforts to expand and implement master's degree programs. This was further supported by conversations with the students, where it was clear that many would study a consecutive master's program. Currently, IMC conducts a scientific day every year in order to increase the research activities of the staff and the students. The research committee will announce the notification to submit the research studies in the form of scientific posters and oral presentations. The experts committee will judge the studies on scientific day and the best papers will be awarded with prices and certificates. The students are then given special opportunities to participate in scientific conferences held in other parts of KSA. The staff is also encouraged to attend workshops to improve their scientific research skills.

The experts visited the College of Applied Medical Sciences' premises on the female and the male campus. From the experts' point of view, the skills labs are equipped with all relevant devices. The experts positively acknowledge that both male and female students are using the same skills labs in order to guarantee the same standards in quality and quantity of equipment for all students. The same is true for the library, as the male and female floor are equipped exactly the same with the necessary books and sufficient online resources for academic research.

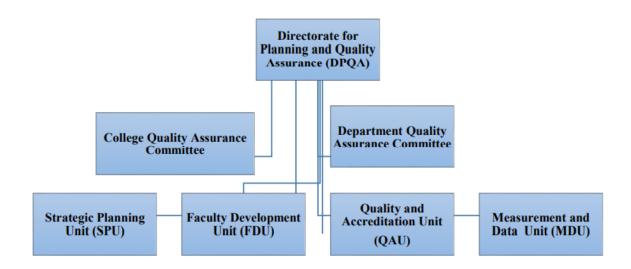
As a whole, it was ascertained by the experts that the Bachelor study program "Nuclear Medicine Technology" has ample teaching facilities at its disposal. The experts learned on site that the skills labs are largely for simulation to prepare students for the assignments and internship in the clinics. This also applies to topics such as hygiene, immunology, infection control or postprocessing, which are to be learned in the practical courses of the hospitals. In the opinion of the

experts, however, it would also make sense to include this in the IMC laboratories or as a separate module in the curriculum. Furthermore, IMC reports that one of the things the NMT students practice in the lab is the application of radioactive materials. In the opinion of the experts, the extraction of the radioactive substance from the generator with the lead sheaths is quite close to reality. They do have a lead wall behind which they mix the pharmaceuticals, but here a better realism adjustment could be made (in the hospitals this is done on workbenches with fume hoods. The safety exercises with the Geiger counter for the contamination controls are very exemplary. In another lab, the NMT program has a machine (1 head gamma camera) to simulate patient positioning. However, most hospitals already have 2 head cameras, which involves changing the machine positioning around the patient (e.g. 90-degree angle). To understand how to position the patient lying down, this equipment is sufficient. In order to be able to teach more progressively, the experts recommend readjustment here.

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

### 3.3.6 Quality assurance

From the experts' point of view, Inaya Medical College has a very well-structured system of quality assurance spread across all of its units. IMC has established different units to assure that all academic and administrative units, divisions and departments are provided with ongoing support and assisting in the development of quality improvement strategies within their own areas:



The experts conclude that IMC has a well-established, documented and published concept of quality assurance regarding the education process, teaching and research, which serves as the basis for the quality-oriented development and implementation of its study program and, therefore, also further development of the "Nuclear Medicine Technology" program.

The results of the internal quality assurance management are applied to the continuous development of the study program. In doing so, IMC takes into close consideration the quality evaluation results as well as the analysis of students' workload, their academic accomplishment and feedback from graduates. During the on-site visit, the students confirm that comments/complaints are taken seriously and result in actual changes.

The experts are impressed of the very good student-to-faculty-ratio, which guarantees excellent support for the students. The students confirm that the communication with the staff is very well and problems are dealt with, even outside the intended round of talks.

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

## 3.3.7 Gender equality and equal opportunities

The College of Applied Sciences has both female and male students and assures equal admission, education, examination and participation opportunities for all students. Inaya Medical College demonstrates its commitment to the provision of equal opportunities for all students and shows impressive openness for diversity and social developments.

The experts appreciate that female and male students use the same skills labs, are taught by female and male instructors, and sometimes study together. IMC also has nursery for students' and staff's children.

Although this has not been an issue before and the experts are convinced that the University tailors a solution to every need, the panel urges the University to reflect on the implementation of compensation measures regarding students with disabilities and chronical illnesses, as it has already happened in other programs at Inaya Medical College.

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

# 3.4 Summary

In conclusion, the experts are impressed by the commitment and dedication of all involved, the management, faculty and students of Inaya Medical College. The experts share the view of the management that Inaya Medical College has the potential to become a university and support the plan to implement master's degree programs in order to be able to invest further in the facilities and research capacities. The Nuclear Medicine Technology program meets the needs of the regional labor market and also international standards.

Based on the information from written documents and the results of the on-site visit, the experts have concluded that the study program "Nuclear Medicine Technology" 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:

- IMC should continue to evaluate student workloads so that strategic adjustments can be applied as necessary.
- IMC should implement differentiated admission criteria for students with disabilities and chronical illnesses.
- IMC should consider setting up a housing program in order to attract students from outside Riyadh to the program.
- Topics such as hygiene, immunology, infection control or postprocessing, which are to be learned in the practical courses of the hospitals could also be included in the IMC laboratories or as a separate module in the curriculum of the "Nuclear Medicine Technology" program.
- The equipment for the extraction of radioactive materials as well as the simulation of patient radioactive materials storage could be modernized.

#### 4 Decision of the accreditation commission

This resolution of the Accreditation Commission of the AHPGS is based on the application, as well as the expert review and the on-site visit covered in the expert report. The Accreditation Commission has also taken into account the response opinion of Inaya Medical College (IMC) regarding the study program.

The on-site visit of Inaya Medical College took place on 15<sup>th</sup> and 16<sup>th</sup> November, 2021, according to the previously agreed-upon schedule.

The accreditation decision is based on the "Accreditation Criteria for International Program Accreditation" which have been developed in close accordance 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 Accreditation Commission of the AHPGS discussed the procedural documents and the vote of the expert group and the response opinion of IMC regarding the expert report.

In the response opinion, Inaya Medical College submitted an action plan in which they address the experts' recommendations in detail and present a timeline for when they will be implemented (if possible). The Accreditation Commission welcomes this action plan.

The regulated study period in the program "Nuclear Medicine Technology" is four years / eight semesters at Inaya Medical College followed by a one-year internship. The study program comprises 45 mandatory courses, of which 31 are program-specific and 14 are courses offered by other departments of IMC (12 of them are taught in the First Common Year and 2 during the main period of studies). The (main) language of instruction is English. The bachelor study program "Nuclear Medicine Technology" is completed with awarding of the academic degree "Bachelor of Nuclear Medicine Technology." Admission takes place every winter and summer semester. The first batch of students was admitted to the study program in the academic year 2011.

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

The study program "Nuclear Medicine Technology" is accredited for the duration of five years, until September, 30, 2027.

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 expert report.