

MEDICAL IMAGING SCIENCE

Bachelor of Medical Imaging Science

and Higher Diploma in Medical Imaging Technology

Admission to Program

Admission to the program is explained in the HCT Admission Policy described in the Academic Policies section of this Catalog.

Program Mission

To Prepare Emirati national students to practice competently and effectively as medical imaging professionals in diverse healthcare environments and meet the continuously thriving UAE stakeholder's demands for medical imaging human resources

Program Description

Medical Imaging Science Program

The Bachelor of Medical Imaging Science (BMIS) program includes a knowledge base that examines specializations of general, emergency and specialized Medical Imaging best practices. This is in alignment with the industrial multimodality medical imaging professionals characteristics.

The BMIS program offers students in Year 4 an option to follow one of three tracks in MRI, advanced CT applications or clinical mammography. Each track consists of 9 credits where students select specialized imaging modality. The track option will distinguish graduates from other competitor programs ones by equipping each BMIS graduate with a strong background to become ready for the high end specialized imaging job on the first day of employment.

The program provides a mix of education and training that equips graduates with the skills, knowledge and competencies to work within the UAE healthcare services system to effectively fulfil health care needs from the medical imaging perspective.

Medical Imaging Technology Program

The Higher Diploma in Medical Imaging Technology (HDMIT) program prepares students for professional, general and emergency medical imaging practice and includes a mix of theoretical knowledge, skills and competencies required for graduates to work in the clinical or non-clinical setting. The Higher Diploma in Medical Imaging Technology program includes a knowledge base that examines specializations of General, and emergency Medical Imaging best practice.

Both BMIS and HDMIT program credentials incorporate extensive supervised professional clinical placement in relevant healthcare settings.

Program Learning Outcomes

Bachelor of medical imaging science (NQF Level 7)

On successful completion of this program the graduate will be able to:

1. Apply advanced knowledge, management and decisionmaking aspects within the national and global medical imaging context to provide quality healthcare services in clinical and non-clinical settings.

2. Apply theoretical and operational medical imaging protocols to develop strategies that address challenges in undertaking general, emergency and specialized medical imaging procedures.
3. Provide competent and evidence-based patient care in general, emergency and specialized medical imaging procedures based on best international and ethical practices.
4. Evaluate diagnostic images produced to ensure diagnostic quality and to promote patient safety within the ALARA and best practice frameworks.
5. Work within a framework of evidence-based practice and continuing quality assurance, evaluate medical imaging systems, and undertake management solutions to ameliorate identified problems.
6. Demonstrate the ability to work independently as well as part of a team, in a diverse range of general, emergency and specialized medical imaging settings.
7. Develop and maintain professional competence and incorporate new solutions into general, emergency and specialized medical imaging practice.
8. Demonstrate professional attributes relevant to their role in the field of general, emergency and specialized medical imaging practice.

Higher Diploma in medical imaging technology (NQF Level 6)

On successful completion of this program the graduate will be able to:

1. Apply relevant principles and theories to a national and global medical imaging context to provide quality healthcare services in clinical and non-clinical settings.
2. Apply theoretical and operational medical imaging protocols to address challenges in undertaking general and emergency medical imaging procedures.
3. Provide competent patient care in general and emergency medical imaging procedures based on best international and ethical practices.
4. Evaluate general and emergency diagnostic images produced to ensure diagnostic quality and to promote patient safety within the ALARA and best practice frameworks.
5. Work within a framework of evidence-based practice and continuing quality assurance, evaluate general and emergency medical imaging systems, and undertake solutions to ameliorate identified problems.
6. Demonstrate the ability to work independently as well as part of a team, in a diverse range of general and emergency medical imaging settings.
7. Develop and maintain professional competence and incorporate new solutions into general and emergency medical imaging practice.
8. Demonstrate professional attributes relevant to their role in the field of general and emergency medical imaging practice.

Requirements

Bachelor of Medical Imaging Science

Completion Requirements

Students must successfully complete a minimum of 126 credits as follows:

Code	Title	Credit Hours
	Health Science Core Courses	24
	Medical Imaging Core Courses	51
	Medical Imaging Preceptorship Courses	18

General Studies	33
Total Credit Hours	126

Higher Diploma of Medical Imaging Technology

Completion Requirements

Students must successfully complete a minimum of 96 credits as follows:

Code	Title	Credit Hours
Health Science Core Courses		
		15
Medical Imaging Core Courses		
		39
Medical Imaging Preceptorship Courses		
		9
General Studies		
		33
Total Credit Hours		96

Bachelor of Medical Imaging Science

Code	Title	Credit Hours
Health Science Core Courses		
Required Credits: 24		
HSC 1023	Chemistry for Health Sciences	3
HSC 1033	Anatomy and Physiology	3
HSC 1113	Introduction to Healthcare Systems and Professional Practice	3
HSC 1123	Work Health and Safety	3
HSC 1803	Medical Terminology for Health Sciences	3
HSC 4003	Research Methods for Health Sciences	3
HSC 4006	Capstone Research Project for Health Sciences	6
Medical Imaging Core Courses		
Required Credits: 51		
HMI 2002	Medical Imaging Technology I	3
HMI 2003	Patient Care in Medical Imaging I	3
HMI 2102	Medical Imaging Technology II	3
HMI 2303	Medical Imaging Positioning and Procedures I	3
HMI 2403	Medical Imaging Anatomy and Pathology I	3
HMI 2503	Medical Imaging Positioning and Procedures II	3
HMI 2603	Medical Imaging Anatomy and Pathology II	3
HMI 3002	Medical Imaging Technology III	3
HMI 3003	Patient Care in Medical Imaging II	3
HMI 3103	Medical Imaging Positioning and Procedures III	3
HMI 3113	Specialised Imaging I	3
HMI 3213	Radiation Safety and Biology	3
HMI 3223	Cross Sectional Anatomy	3
HMI 4003	Quality Management in Medical Imaging	3
HMI 4013	Specialised Imaging II	3
HMI 4113	Specialized Imaging III	3
HMI 4203	Professional Practice	3
Medical imaging Preceptorship Courses		
Required Credits: 18		
HMI 2613	Clinical Preceptorship I	3

HMI 3013	Clinical Preceptorship II	3
HMI 3233	Clinical Preceptorship III	3
HMI 4023	Clinical Preceptorship IV	3
HMI 4106	Clinical Preceptorship V	6

General Studies

Required Credits: 33

English, Arabic or other Languages

Required Credits: 12

Humanities or Art

Required Credits: 3

Information Technology or Mathematics

Required Credits: 6

The Natural Sciences

Required Credits: 3

The Social or Behavioral Sciences

Required Credits: 9

Higher Diploma of Medical Imaging technology

Code	Title	Credit Hours
Health Science Core Courses		
Required Credits: 15		
HSC 1023	Chemistry for Health Sciences	3
HSC 1033	Anatomy and Physiology	3
HSC 1113	Introduction to Healthcare Systems and Professional Practice	3
HSC 1123	Work Health and Safety	3
HSC 1803	Medical Terminology for Health Sciences	3
Medical Imaging Core Courses		
Required Credits: 39		
HMI 2002	Medical Imaging Technology I	3
HMI 2003	Patient Care in Medical Imaging I	3
HMI 2102	Medical Imaging Technology II	3
HMI 2303	Medical Imaging Positioning and Procedures I	3
HMI 2403	Medical Imaging Anatomy and Pathology I	3
HMI 2503	Medical Imaging Positioning and Procedures II	3
HMI 2603	Medical Imaging Anatomy and Pathology II	3
HMI 3002	Medical Imaging Technology III	3
HMI 3003	Patient Care in Medical Imaging II	3
HMI 3103	Medical Imaging Positioning and Procedures III	3
HMI 3113	Specialised Imaging I	3
HMI 3213	Radiation Safety and Biology	3
HMI 3223	Cross Sectional Anatomy	3
Medical imaging Preceptorship Courses		
Required Credits: 9		
HMI 2613	Clinical Preceptorship I	3
HMI 3013	Clinical Preceptorship II	3
HMI 3233	Clinical Preceptorship III	3
General Studies		
Required Credits: 33		
English, Arabic or other Languages		
Required Credits: 12		

Humanities or Art

Required Credits: 3

Information Technology or Mathematics

Required Credits: 6

The Natural Sciences

Required Credits: 3

The Social or Behavioral Sciences

Required Credits: 9

Ideal Study Plan Recommended Sequence of Study

Year 1		Credit Hours
Semester 1		
HSC 1013	Human Biology	3
HSC 1113	Introduction to Healthcare Systems and Professional Practice	3
HSC 1803	Medical Terminology for Health Sciences	3
LSC 1103	Professional Communication and Reporting	3
LSS 1003	Life and Future Skills	3
Credit Hours		15
Semester 2		
AES 1013	Arabic Communications I	3
HSC 1023	Chemistry for Health Sciences	3
HSC 1033	Anatomy and Physiology	3
HSC 1123	Work Health and Safety	3
LSM 1113	Statistical Mathematics	3
Credit Hours		15
Year 2		
Semester 1		
HMI 2002	Medical Imaging Technology I	3
HMI 2003	Patient Care in Medical Imaging I	3
HMI 2303	Medical Imaging Positioning and Procedures I	3
HMI 2403	Medical Imaging Anatomy and Pathology I	3
LSC 2103	Academic Reading and Writing II	3
LSS 1123	Basic Research Methods	3
Credit Hours		18
Semester 2		
AES 1003	Emirati Studies	3
HMI 2102	Medical Imaging Technology II	3
HMI 2503	Medical Imaging Positioning and Procedures II	3
HMI 2603	Medical Imaging Anatomy and Pathology II	3
HMI 2613	Clinical Preceptorship I	3
Credit Hours		15
Year 3		
Semester 1		
HMI 3002	Medical Imaging Technology III	3
HMI 3003	Patient Care in Medical Imaging II	3
HMI 3013	Clinical Preceptorship II	3
HMI 3103	Medical Imaging Positioning and Procedures III	3
BUS 2403	Innovation and Entrepreneurship	3
Credit Hours		15
Semester 2		
AES 3003	Professional Arabic	3
ICT 2013	Computational Thinking and Coding	3
HMI 3113	Specialised Imaging I	3
HMI 3213	Radiation Safety and Biology	3
HMI 3223	Cross Sectional Anatomy	3
HMI 3233	Clinical Preceptorship III	3

Higher Diploma in Medical Imaging Technology exit		Credit Hours
		18
Year 4		
Semester 1		
HMI 4003	Quality Management in Medical Imaging	3
HMI 4013	Specialised Imaging II	3
HMI 4023	Clinical Preceptorship IV	3
HMI 4203	Professional Practice	3
HSC 4003	Research Methods for Health Sciences	3
Credit Hours		15
Semester 2		
HMI 4106	Clinical Preceptorship V	6
HMI 4113	Specialized Imaging III	3
HSC 4006	Capstone Research Project for Health Sciences	6
Credit Hours		15
Total Credit Hours		126

Faculty and Academic Staff

Colleen Mbambo, MSc Radiography, University Of Johannesburg- South Africa.

Hind Binjaffar, MSc Hospital Management. Hamdan Bin Mohammed Smart University-UAE.

Hussam Beituni, MSc Medical Imaging Interpretation, Charles Sturt University- Australia.

Majed Hiasat, MSc radiation and environmental protection. Surrey University-UK.

Saleh Abuzeitoon, PhD technical vocational education. Amman Arab University-Jordan.