THE HONG KONG POLYTECHNIC UNIVERSITY 香港理工大學

Department of Health Technology and Informatics 醫療科技及資訊學系

Master of Medical Imaging 2025/26 Information Seminar

6 Sep 2025

MMI Course Info

Professor Shara LEE | Associate Professor

Programme Leader

PhD, MSc (Cardiol), BSc Hons (1st), FHKCRRT, SFHEA, FHEA

Deputy Programme Leader (BSc (Hons) Radiography)

Deputy Programme Leader

Mr. Edward WONG | Associate Professor of Practice

Clinical Coordinator (MMI)

Prof. LT LIN | Associate Professor

Head of Department

Prof. CAI Jing
Head(HTI) & Professor
系主任：蔡璟教授

Y936a
+852 3400 8645
jing.cai@polyu.edu.hk
Discipline: Radiography
Personal Profile

Our department is committed to achieving world-class academic excellence in four medical (4M) areas:

- **M**edical Laboratory Science
- **M**edical Imaging and Radiation Science
- **M**edical Physics
- **M**edical Data Science

Core Professional Disciplines

- Radiography (RAD)
  - Medical Imaging (MI)
  - Radiation Therapy (RT)
- Medical Physics (MP)
- Medical Laboratory Sciences (MLS)
- Medical Data Science

Study Programmes

- BSc (Hons)
- MSc / MMI / MMLS
- MPhil / PhD

THE HONG KONG POLYTECHNIC UNIVERSITY 香港理工大學

Department of Health Technology and Informatics 醫療科技及資訊學系

Master of Medical Imaging

醫療影像碩士學位

Professional Recognition

Graduates are eligible for registration in Part II of the Register of the Radiographers Board of Hong Kong. They are also recognised by many overseas registration bodies, including those in the UK, Singapore, New Zealand and Australia (after gaining 1 year of clinical experience). ^

Our graduates can find employment with the Hospital Authority, which recognises the degree as an entry qualification. Employment opportunities are also available in private hospitals, in clinics and laboratories, and in the commercial sector.

^ Subject to approval

Programme Aims

This programme equips students with the theoretical and practical skills to become entry-level diagnostic radiographers, emphasizing:

- Fundamental Knowledge: In-depth understanding of medical imaging theories and clinical skills.
- Practical Skills: Hands-on training for medical imaging procedures.
- Professional Development: Patient care, communication, and teamwork abilities.
- Critical Thinking & Innovation: Independent decision-making, problem-solving, and understanding of a radiographer's role in healthcare.
- Lifelong Learning & Research: Commitment to continuous learning and research for career advancement.

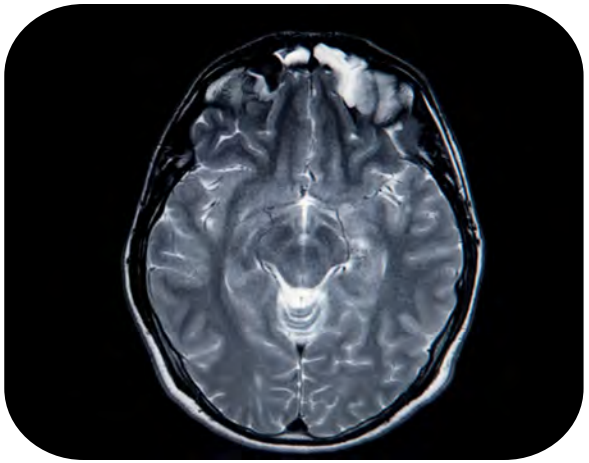
Characteristics

The clinical practicum, a pivotal part of the curriculum, is facilitated through Hospital Authority departments. Over the programme's 2-year span, students gain 1,344 hours of hands-on clinical experience. This extensive clinical training is mandatory for accreditation by the Hong Kong Radiographers Board. Per government ordinance, this accreditation is essential for Radiographer (Category: Diagnostic) roles in Hong Kong.

MEDICAL IMAGING

- Professional training to become diagnostic radiographers
- Specialized in acquiring high-quality diagnostic images, which are essential for guiding clinical decision-making and monitoring patient conditions.





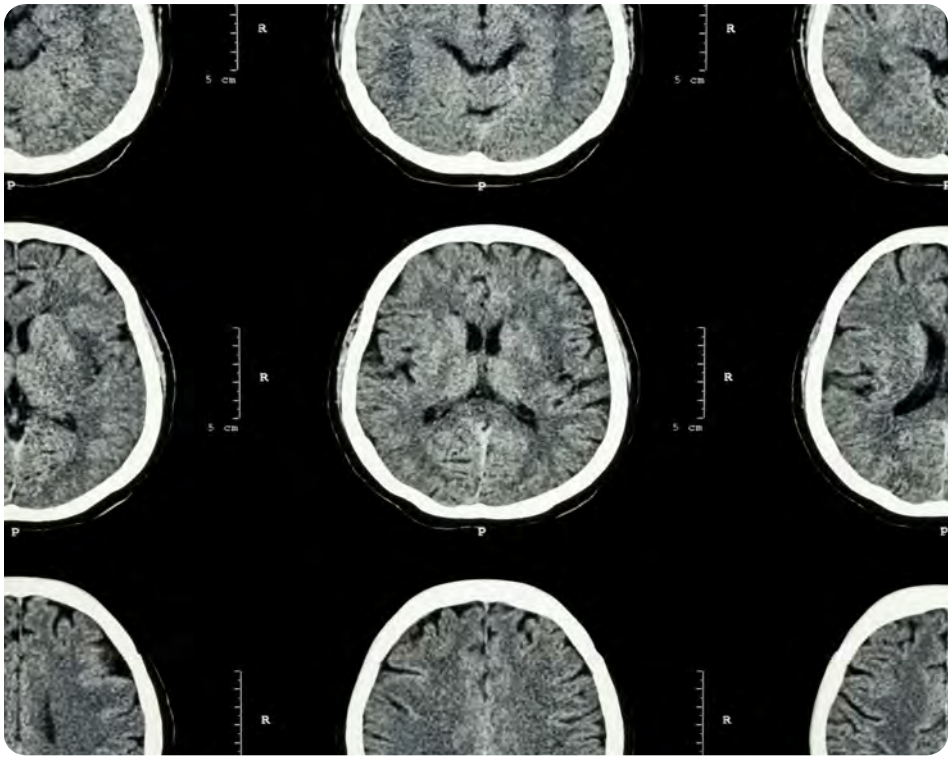
MEDICAL IMAGING MODALITIES

General X-Ray

Uses Plain/2D X-rays to produce detailed images of bones, chest, and soft tissues, supporting quick diagnosis of injuries and diseases in many healthcare settings.

MEDICAL IMAGING MODALITIES

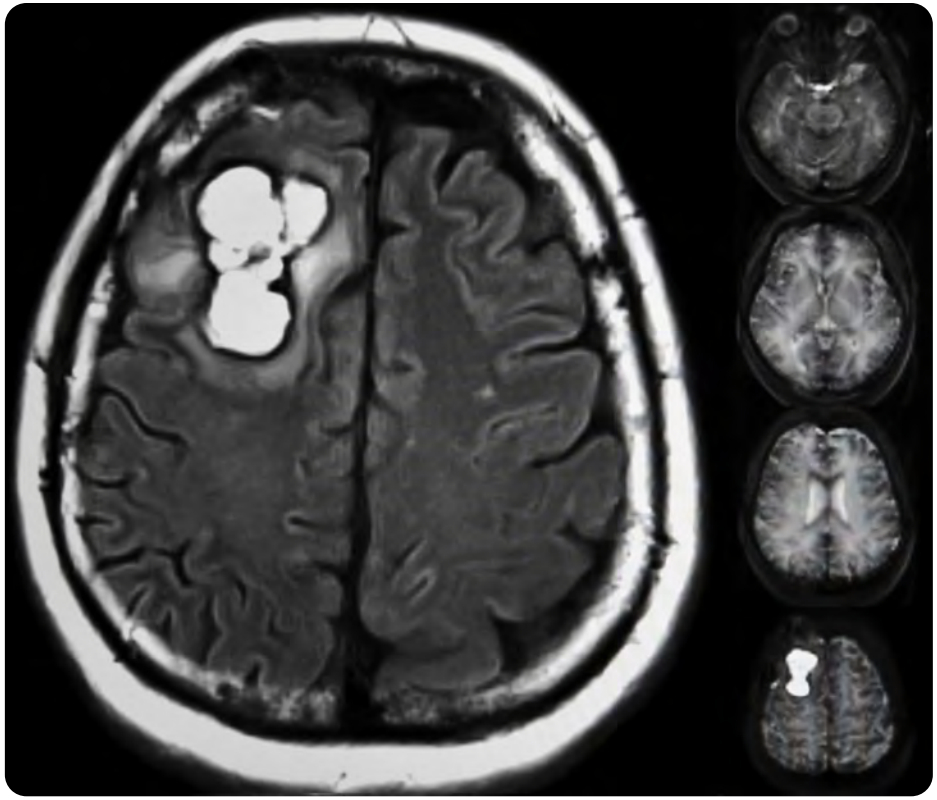
Computed Tomography (CT)



Combines X-rays and computer processing to generate cross-sectional images of the body. Radiographers acquire these scans to assist in diagnosing trauma, cancers, and complex internal diseases.

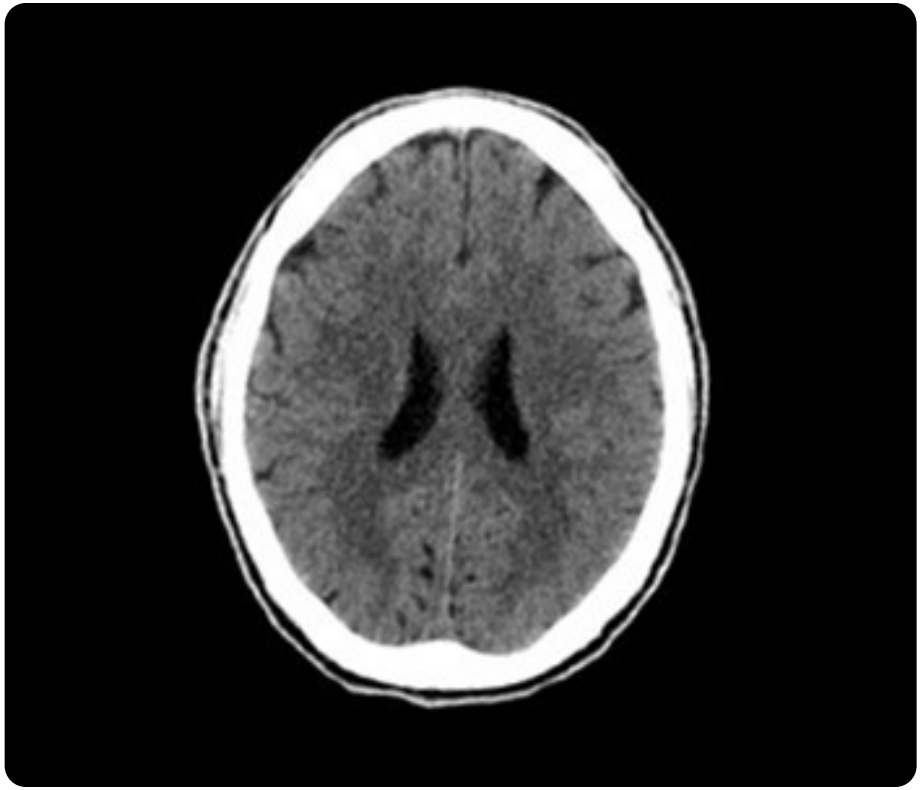
MEDICAL IMAGING MODALITIES

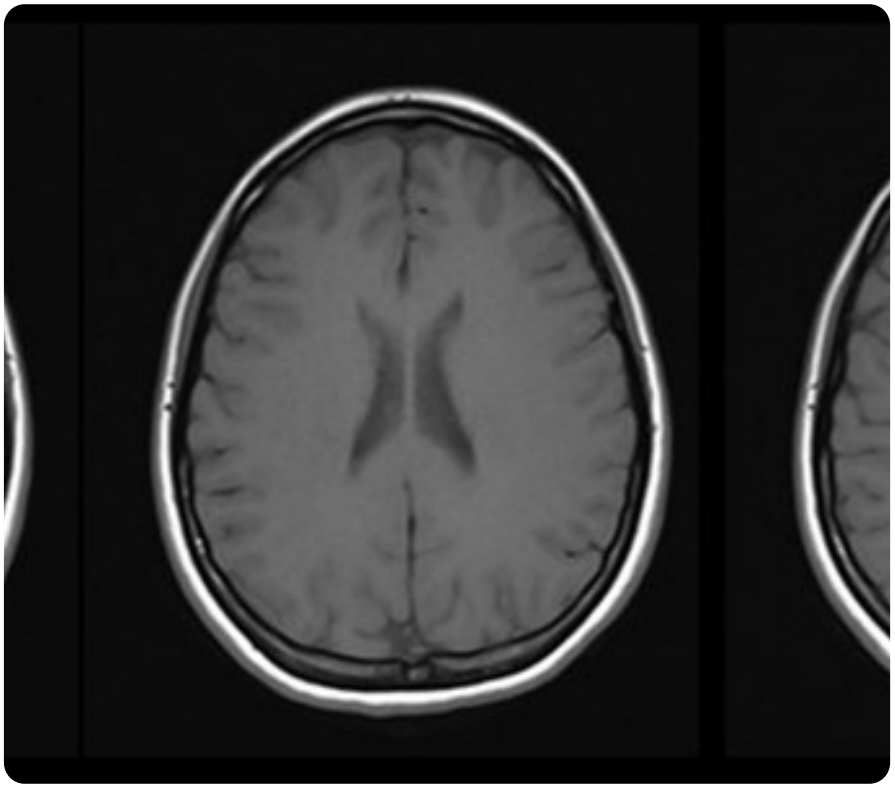
Magnetic Resonance Imaging (MRI)



Uses strong magnetic fields and radio waves to create highly detailed images of organs and soft tissues. Radiographers ensure patient safety and optimal image acquisition during exams.

CT vs MRI Scans



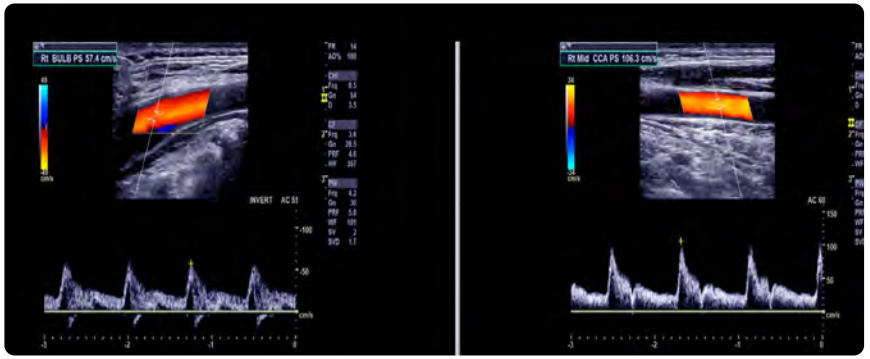


CT: shows bone as bright white and bleeding as distinct high-density areas, making them ideal for acute trauma

MRI: displays soft tissues with greater contrast, clearly differentiating grey matter, white matter, and subtle brain abnormalities

MEDICAL IMAGING MODALITIES

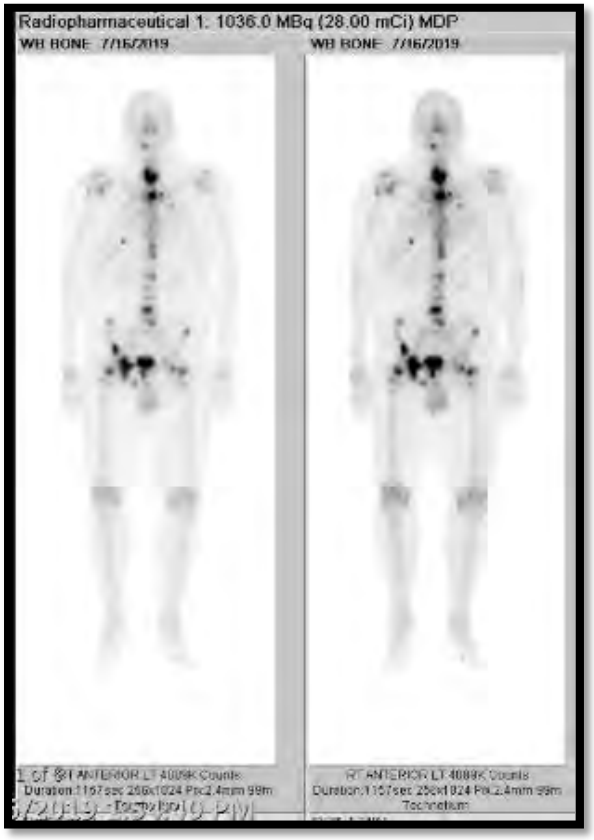
Diagnostic Ultrasonography (USG)

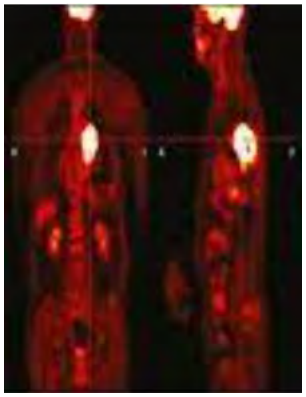


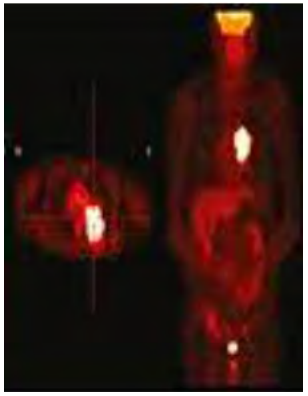
Uses high-frequency sound waves to visualize organs, blood flow, and fetal development.
Radiographers acquires dynamic, real-time images for clinical interpretation and initial reporting.

MEDICAL IMAGING MODALITIES

Nuclear Medicine (NM)



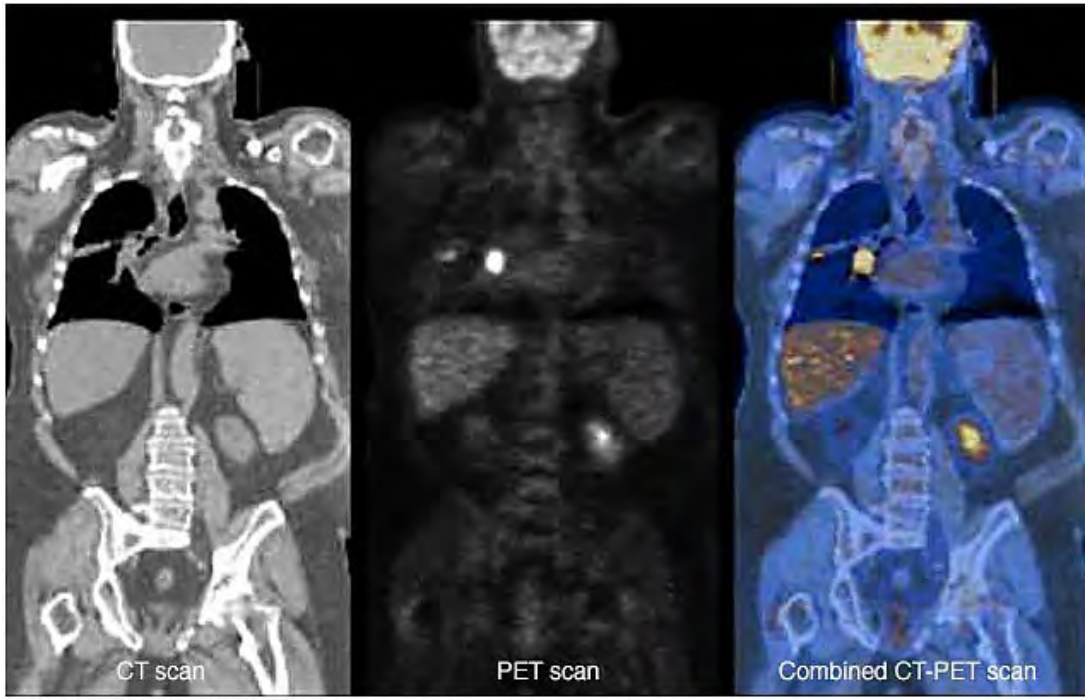




Employs small amounts of radioactive tracers to study organ function and detect disease. Radiographers administer tracers, acquire specialized scans, and ensure patient safety.

MEDICAL IMAGING MODALITIES

Positron Emission Tomography – CT (PET-CT)



Combines nuclear medicine with CT imaging to assess metabolic activity and anatomy. Radiographers manage tracer administration, scanning, and image co-registration to support oncology and neurology care

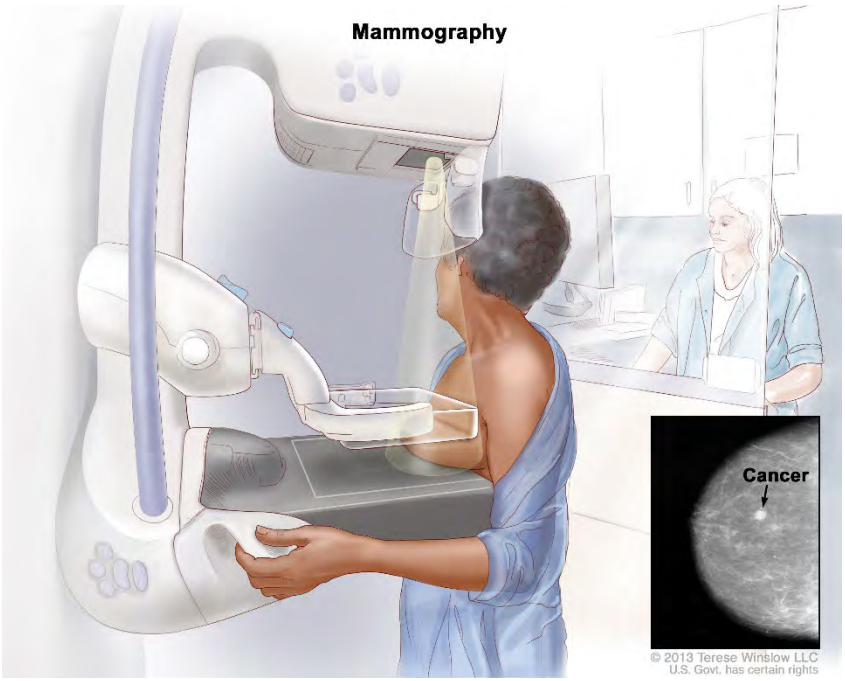
MEDICAL IMAGING MODALITIES

Interventional Radiology (IR)

Radiographers assist image-guided minimally invasive procedures using fluoroscopy, CT, or ultrasound. They optimize imaging, radiation safety, and procedural workflows to support therapeutic and diagnostic interventions with radiologists.

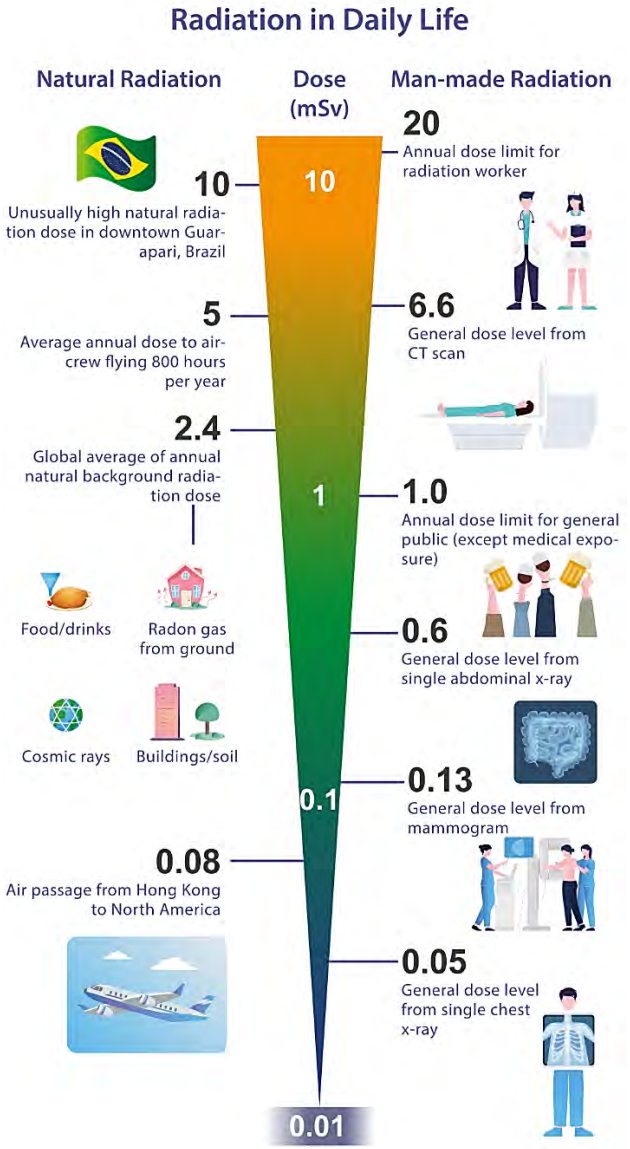
MEDICAL IMAGING MODALITIES

Mammography



Uses low-dose X-rays to examine breast tissue, supporting early detection of cancer. Radiographers provide technical expertise and patient care in an often-sensitive clinical setting.

We are living with radiation



Ref: https://www.sb.gov.hk/eng/special/nuclear/Radation.html

Is it safe to work as a Radiographer?

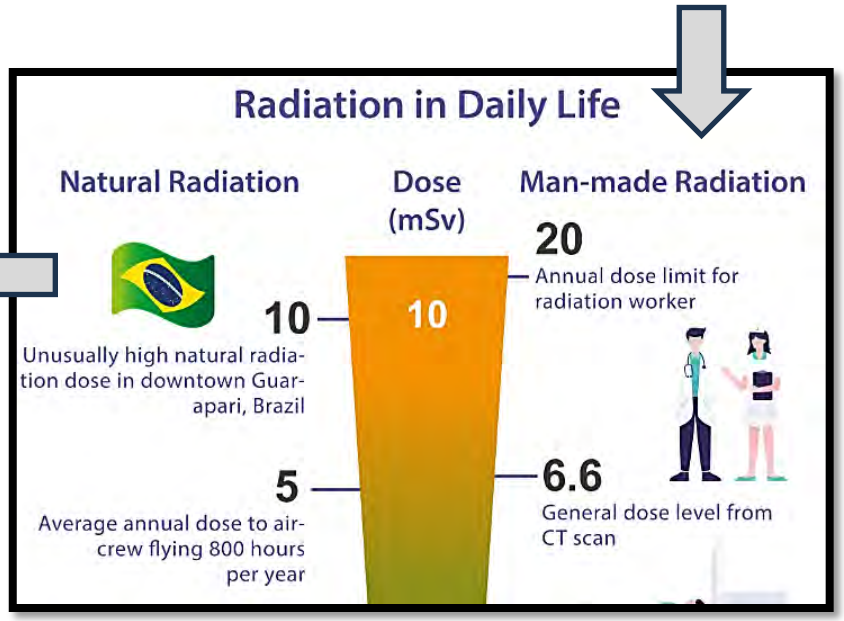
Is it safe to work as a Radiographer?

Legal Requirements

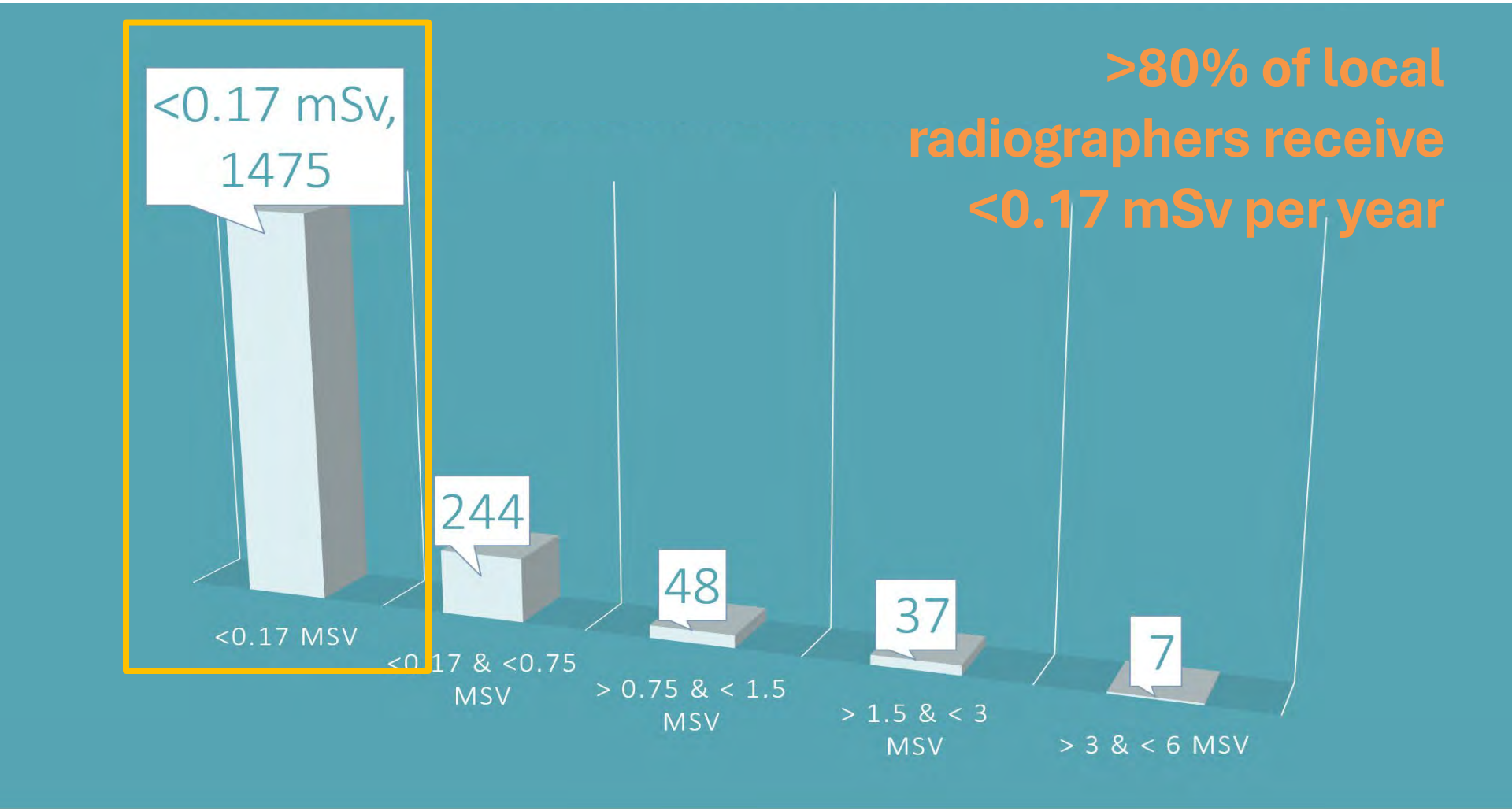
Maximum Permissible Dose Limit

Radiation workers:

20 mSv/year

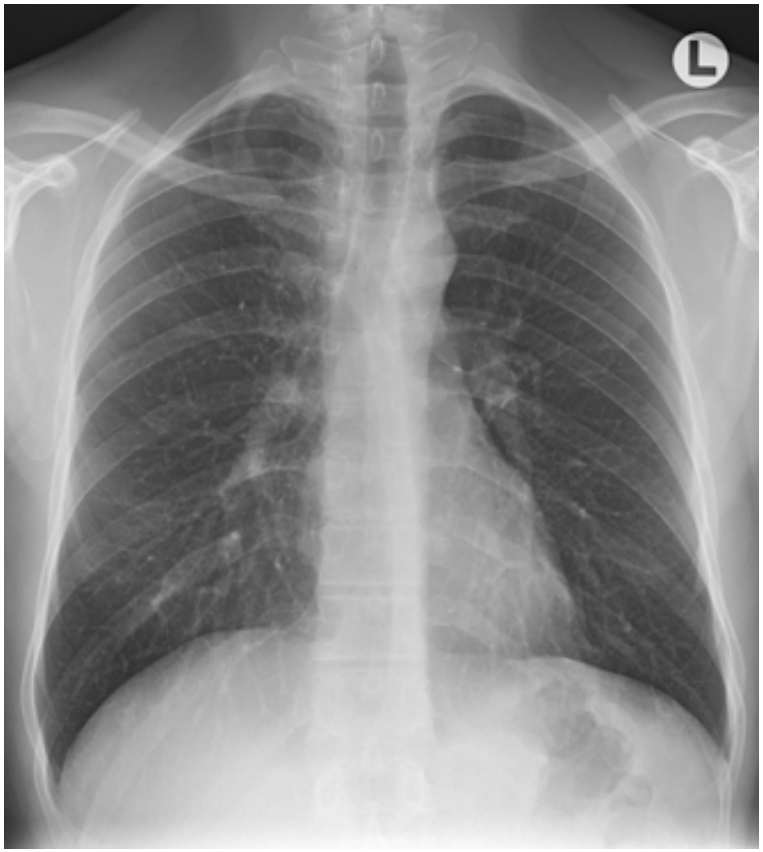


Distribution of annual whole-body dose of local radiographers (2020)



>80% of local radiographers receive <0.17 mSv per year

Factual Comparison



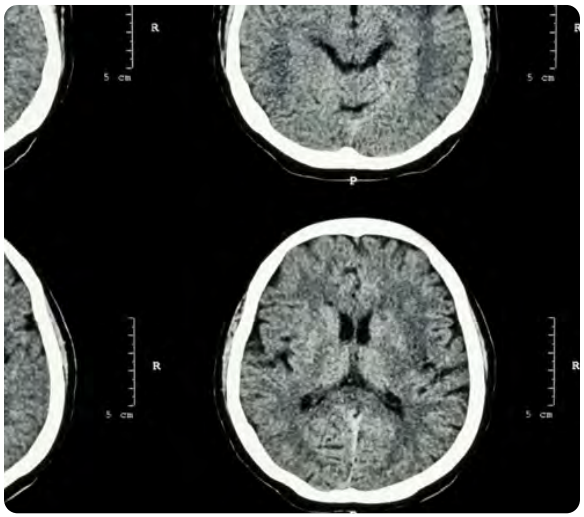
(0.1 mSv)

≈

10 Days Background Radiation (~0.1 mSv)

≈

Round Trip HK and London (0.08 mSv)



CT Chest (~7-10 mSv)

>80% of local radiographers receive <0.17 mSv per year

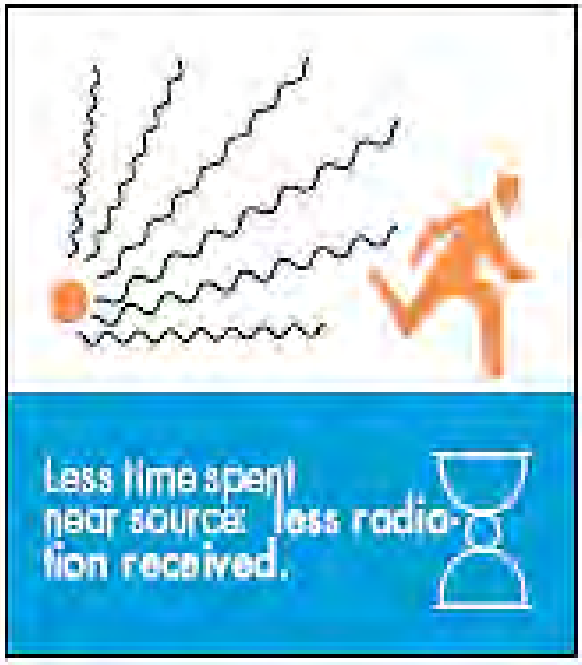
Level of Radiation Exposures

4,000 mSv	Lethal dose (50% chance of death)
4,000 mSv	Annual limit of Hong Kong Radiographers / EU airline crew
10 mSv	Full Body CT
2 mSv	One year background radiation in Hong Kong
<1 mSv	Annual dose of >95% Hong Kong Radiographers | Chest X-ray

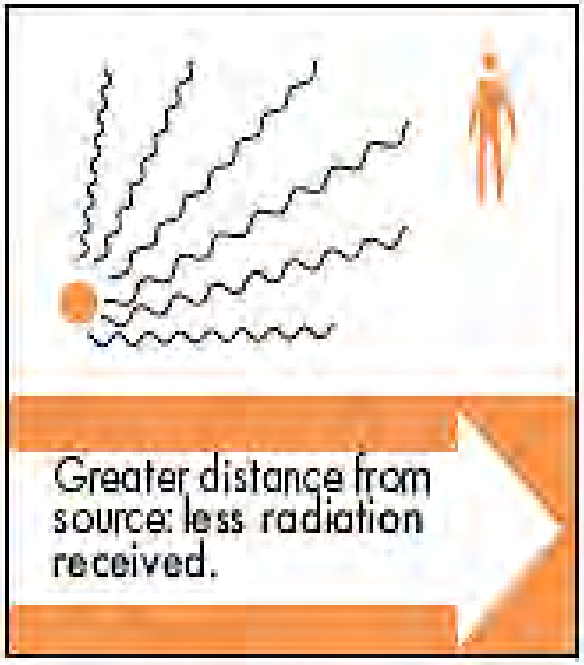



Radiation Protection is KEY

Time



Distance



Shielding

Radiation Protection is KEY

Programme Overview

Master of Medical Imaging (MMI)

- 2-year Full-time Professional Master Programme
- 90 credits (1 credit = 13 hours of work)
  - 6 Foundation Subjects: 19 credits
  - 16 Professional Subjects: 47 credits
  - 4 Clinical Subjects: 24 credits
- Refer to Programme Document for details
- HKD 8,600/credit (For 2026/27 Entry)

Progression Pattern*

Master of Medical Imaging

Year 1

	Semester One	Semester Two
	Clinical and Applied Physiology	Clinical and Applied Physiology
	Diagnostic Imaging Studies I	Clinical Skills in Diagnostic Imaging
	Diagnostic Radiology Physics	Diagnostic Imaging Instrumentation
	Foundations in Medical Imaging Science	Diagnostic Imaging Studies II
	Imaging and Applied Anatomy	Imaging and Applied Anatomy
	Radiation Biology	Pathology for Medical Imaging
	Radiation Safety & Protection	
Winter Break	Clinical Practicum I	Clinical Practicum II
Summer Break		Clinical Skills in Diagnostic Imaging
		Innovations in Research and Services

Year 2

	Semester One	Semester Two
	Diagnostic Imaging Studies III	Advanced Medical Imaging Informatics
	Essential Magnetic Resonance Imaging	Essential Computed Tomography
	Healthcare Research and Informatics	Essential Vascular and Interventional Radiology
	Innovations in Research and Services	Innovations in Research and Services
	Medical Ultrasonography	Legal and Ethical Issues for Healthcare Professions
	Nuclear Medicine	
Winter Break	Clinical Practicum III	Clinical Practicum IV
Summer Break	Innovations in Research and Services	Innovations in Research and Services

Other Requirements

- Complete the 1-credit Academic Integrity and Ethics (AIE) subject
- Complete the e-learning module on "Understanding China and the Hong Kong Special Administrative Region, P.R.C."

*Subject to change and for reference only. For details of the curriculum, please refer to Programme Requirement Document.

Credit Required for Graduation
91

Tuition Fee
HK$7,850 per credit (x 90 credits) for local and non-local students
(Note: There is no tuition charge for the 1-credit AIE subject)

Mode of Attendance
Full-time mode

Normal Duration
2 years

Entrance Requirements
A Bachelor's degree in sciences, preferably physics, biological sciences or health-related disciplines from PolyU or a recognised institution. Other qualifications may be considered on an individual basis.

Preference will be given to applicants who are able to communicate effectively in English and Cantonese.

Preference will be given to applicants who have obtained credits for each of the following prerequisite undergraduate-level courses before admission to the programme.

- Human Physiology (3 credits or equivalent)
- Human Anatomy (3 credits or equivalent)

Contact Information
Department of Health Technology and Informatics
The Hong Kong Polytechnic University
Web site: www.polyu.edu.hk/hti
Tel : (852) 3400 8578
Fax: (852) 2362 4365
Email: hti.tpg@polyu.edu.hk

Clinical Practicum

Essential Training for professional recognition

- Conducted in Hospital Authority and private hospitals departments.
- Clinical Placement: **1,344 hours** across TWO years, required for registration with the Hong Kong Radiographers Board.
- Supervision: Clinical educators and mentors from diagnostic Radiology departments, in collaboration with university staff.
- Assessment System: Progress reports, case worksheets, clinical assessments, OSCE to assess clinical, professional and interpersonal skills

Medical Imaging

PolyU Training Facilities (Examples)

- 4 General X-Ray Units
- 2x Portable X-Ray Units
- 8+ Ultrasound Machines
- 1x Mammography
- 1x CT Machine
- 1x Radiation Dosimetry Lab
- 1 x Mixed Reality Lab (with IC)
- 1x Clinical Skills Lab

Hybrid Immersive Virtual Environment (U202)

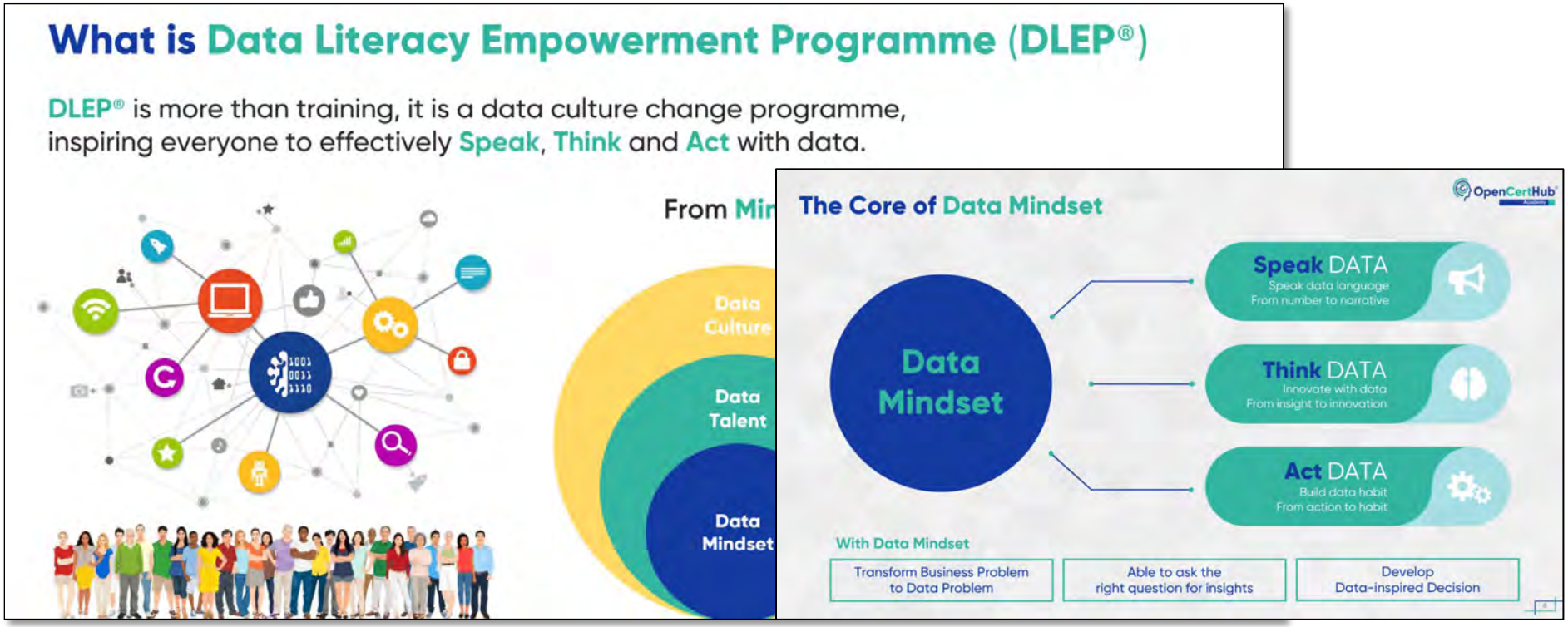
Hybrid Immersive Virtual Environment (U202)

BSc Radiography ≠ Master of Medical Imaging

Advanced skills in the AI Era

OpenCertHub®

- Data Literacy Empowerment Programme (DLEP)
  - How to handle, process and apply data in your daily lives



BSc Radiography ≠ Master of Medical Imaging

Advanced skills in the AI Era

OpenCertHub®

- Data
  - o H

Purpose: Inspire everyone to Transform to create a better Digital future
Methodology: DLEP Journey – from Data Mindset to Data Culture

OpenCertHub Academy

DLEP Journey	Your Data Story	Output
1 ▪ Data Mindset Workshop (3 hours)	Ideating Business Problem Relating to Daily Work	Personal Business Problem
2 ▪ Data Storytelling Workshop (3 hours)	Building Your Data Story (Data Problem in Context)	Personal Data Story
3 ▪ Data-inspired Innovation Workshop (3 hours)	Innovating with Data through Problem Reframing	Reframed Data Problem
4 ▪ Data Analytics and Discovery Workshop (3 hours)	Sharpening Data Insights	Quality Data Approach
5 ▪ Data Project (Mentoring: 6 hours + Presentation: 2 hours)	Practicing Data Mindset and Building Data Habit	Team Data Projects

Everyday Workplace

Everyday Data Hero

Daily Work of a Frontline Radiographer

- 📋 **Patient Assessment & Preparation** – check identity, review clinical request, assess patient condition
- 🗣️ **Patient Communication** – explain procedure clearly, gain cooperation, address concerns
- 🎯 **Positioning & Instructions** – guide patient into correct posture to optimize image quality
- ⚙️ **Equipment** Operation – set parameters, apply radiation safety, ensure accurate image acquisition
- ✅ **Image Review & Documentation** – check diagnostic quality, complete records before patient leaves

Nature of the Work

- 🔁 **Routine, yet Personalized** – procedures may look repetitive, but **every patient's case is unique**
- 🧩 **Clinical & Technical Judgement** – adapting positioning and protocols, while working closely with other staff
- 🤝 **Patient Safety & Comfort** – monitoring wellbeing, minimizing radiation exposure, and ensuring dignity
- 🎯 **Autonomous Decision-Making** – making critical real-time adjustments, demonstrating independent expertise in optimizing image quality and patient outcomes.

Meaningful Impact

- 🌍 **Essential to Patient Care** – diagnostic imaging underpins almost every clinical specialty
- 💙 **Empathy & Compassion** – each patient may be anxious, in pain, or facing uncertainty; how we care for them matters
- 🏥 **Beyond Technology** – radiographers are not just "machine operators," but professionals who combine technical expertise with human care (irreplaceable by AI)
- ✨ **Rewarding Career** – though routine in process, every exam contributes directly to timely diagnosis, guiding life-saving treatments

Meaningful Pathway to serve as diagnostic radiographer

Pledge of Professionalism
專業誓章

I willingly pledge the following:

I will respect the dignity and rights of all people.

I will conduct my professional duties with integrity, compassion, fairness and responsibility.

I will uphold and promote the highest standards and ideals of my profession.

I will strive to improve the health and welfare of all in my community.

I make this pledge freely and upon my personal and professional honour.

ENTRANCE REQUIREMENTS

- Bachelor's degree in sciences, preferably physics, biological sciences or health-related disciplines from PolyU or a recognized institution
- **Priority** will be given to applicants who have obtained credits for each of the following prerequisite undergraduate-level courses before admission to the programme
  - Human Physiology (3 credits or equivalent)
  - Human Anatomy (3 credits or equivalent)

Human Anatomy & Physiology

Sample courses accepted as pre-requisite

Only course with proctored exams will be considered

University	Course code	Subject	Credits	Approval	Remark
Athabasca University	BIOL 235 / Biology 235	Human Anatomy and Physiology	6	Both	
Excelsior College	BIO 115	Anatomy and Physiology I	3	Both	Applicants must take both BIO 115 and BIO 116 courses to fulfill the total of 6 credits of human anatomy and physiology requirements
Excelsior College	BIO 116	Anatomy and Physiology II	3	Both	Applicants must take both BIO 115 and BIO 116 courses to fulfill the total of 6 credits of human anatomy and physiology requirements
Brigham Young University	CELL 205	Human Biology	/	Human Physiology	
Brigham Young University	CELL 210	Human Anatomy	/	Human Anatomy	
Southern New Hampshire University	/	Human Anatomy and Physiology I	/	Both	Applicants must take both courses to fulfil the human anatomy and physiology requirements. Verified certificate issued by the course is required.
Southern New Hampshire University	/	Human Anatomy and Physiology II	/	Both	Applicants must take both courses to fulfil the human anatomy and physiology requirements. Verified certificate issued by the course is required.
Western University	KIN 2222 / HS2300A	Systemic Approach to Functional Human Gross Anatomy	/	Human Anatomy	
University of Hong Kong	BIOL3205	Human Physiology	6	Human Physiology	

PROFESSIONAL QUALIFICATION

(Upon successful accreditation)

- **Hong Kong Registration:** Graduates are eligible for registration on Part Two of the Register of the Hong Kong Radiographers Board.
- **Overseas Recognition:** Graduates are recognized by registration bodies in countries like UK, Canada, New Zealand, and Australia after 1-2 years of clinical experiences.
- Further Information: Contact the respective country's registration bodies for more details.

CAREER PROSPECTS

- Public and private hospitals, clinics
- Medical companies

Entry salary range:
HKD 35,795 – 47,322

仁安醫院 UNION HOSPITAL
SIEMENS medical
Adventist 港 Health 安
養和 HKSH
伊利沙伯醫院 QUEEN ELIZABETH HOSPITAL
St. Teresa's Hospital 聖德肋撒醫院
VARIAN medical systems
瑪麗醫院 QUEEN MARY HOSPITAL
香港浸信會醫院 Hong Kong Baptist Hospital
醫院管理局 HOSPITAL AUTHORITY

CONTACT US

Phone

34008655

Email

hti.dept@polyu.edu.hk

Website

www.polyu.edu.hk/hti

Location

9th Floor, Lee Shau Kee Building

THE HONG KONG POLYTECHNIC UNIVERSITY 香港理工大學

Department of Health Technology and Informatics 醫療科技及資訊學系

Master of Medical Imaging 2025/26 Information Seminar

6 Sep 2025

Professor Shara LEE | Associate Professor

Programme Leader

PhD, MSc (Cardiol), BSc Hons (1st), FHKCRRT, SFHEA, FHEA

Deputy Programme Leader (BSc (Hons) Radiography)

Programme Coordinator (Radiation Therapy)

Deputy Programme Leaders

Professor LT LIN | Associate Professor

Mr. Edward WONG | Associate Professor of Practice

Clinical Coordinator (MMI)