

**MASTER OF MEDICINE  
(RADIOLOGY)**

## ADMISSION REQUIREMENTS

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### General requirements

Conform to the Postgraduate Policies and Regulations of the University.

### Specific requirements

#### Malaysian applicant

- a) Possesses Bachelor of Medicine and Bachelor of Surgery (MBBS) or MD degree from an institution recognized by the Malaysian Medical Council (MMC).

and

- b) At least one year of post-full registration of clinical experience certified by the relevant authorities (3 years post graduation).

#### International applicant

- a) Possesses a Bachelor of Medicine and Bachelor of Surgery degree or equivalent from an institution recognized by the Malaysian Medical Council (MMC).
- b) Qualifies for registration under the Medical Practitioner Act 1971 (Act 50) of Malaysia.
- c) If the institution which the applicant graduated from is not recognized by the Malaysian Medical Council (MMC), their application may be considered with 'conditional offer' if they can obtain 'limited registration' with MMC
- d) At least three years of post-full registration of clinical experience by the relevant authorities.
- e) International English Language Testing System (IELTS) with average total minimum score of 6 OR Test of English as a Foreign Language (TOEFL) with a minimum score of 550.

### Other requirements

- a) Passed the National Conjoint Board (Radiology) entrance evaluation and interview.
- b) Favorable referees' reports.

- c) Other relevant entrance evaluation as required by the University:
- d) English Proficiency Test (exempted if candidate has obtained a minimum score of 6 for IELTS or 550 for TOEFL).

## MASTER OF MEDICINE (FAMILY MEDICINE)

### CURRICULUM STRUCTURE

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This is a full time programme based on rotations and not semester based. The minimum duration shall be four years, with total years not exceeding seven years.

#### PROGRAMME OVERVIEW

This is a 4 year programme, which is divided into 3 phases ie. Phase 1 (Year 1), Phase 2 (Year 2 & Year 3) and Phase 3 (Year 4).

It is designed to allow progressive mastery of knowledge, skills and attitude with increasing level of independence and responsibilities.

It is also to stimulate candidates to develop further interest in radiological subspecialties.

The programme will be:

- Organ system-based
- Problem-based
- Multidisciplinary approach

Overview of Master of Medicine (Radiology) Programme

	PHASE I	PHASE II		PHASE III
	Year 1	Year 2	Year 3	Year 4
<b>Radiology Rotations</b>	<p>Rotations with various imaging modalities</p> <ul style="list-style-type: none"> <li>• Radiological anatomy</li> <li>• Medical physics</li> <li>• Radiation hazards &amp; protection</li> <li>• Radiographic techniques</li> <li>• Radiology procedures</li> </ul>	<p>Rotations with various imaging modalities</p> <ul style="list-style-type: none"> <li>• Apply the knowledge and skills gained in Phase I</li> <li>• Common radiological features on various imaging modalities</li> <li>• Radio-pathological correlation</li> <li>• Differential diagnoses</li> </ul>		<div style="background-color: #e06699; padding: 5px; text-align: center;"> <p>Elective Posting (Optional) (1 month)</p> </div> <div style="text-align: center; padding: 20px 0;"> <p>Registrar / 'Junior Radiologist'</p> </div>
		<div style="background-color: #f08080; padding: 5px; display: inline-block;"> <p>Posting in other hospitals / institutions</p> </div>		



	<ul style="list-style-type: none"> <li>• Radiological equipments</li> <li>• Contrast agents &amp; drugs</li> </ul>		(3 months)	
<b>Case Write-ups</b>		6 short cases & 2 long cases to be submitted		
<b>Dissertation</b>	Journal review	<ul style="list-style-type: none"> <li>• Journal review</li> <li>• Preparation of dissertation - selection of topic and presentation of the proposal</li> <li>• Data collection</li> </ul>	Data analysis & write-up	Submit (mid Yr. 4)
<b>Special Courses / Workshops</b>	<ul style="list-style-type: none"> <li>• Basic Life Support (BLS)</li> </ul>	<ul style="list-style-type: none"> <li>• Research Methodology &amp; Biostatistic</li> <li>• Good Clinical Practice (GCP)</li> </ul>		
	Islamic Input, Ethics and Humanity			
<b>Assessment</b>	Continuous Assessment + Log Book + Supervisor's Report			
<b>Examination</b>	Professional I Examination		Professional II Examination	Professional III Examination

## PROGRAMME STRUCTURE

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### Phase I (Year 1)

The general objective is to enable candidates to acquire knowledge of:

- Radiological anatomy
- Radiology physics (including radiation hazards & protection)
- Radiographic techniques
- Radiologic equipments & apparatus
- Radiology procedures
- Basic musculoskeletal trauma (extremities)
- Contrast media, radioisotope and related drugs used in radiology
- Introduction to radiation hazards & protection
- ICT and applications in radiology

The candidates are required to apply the knowledge in the clinical problem-solving and decision-making process in the management of patients, including performance of procedures under supervision.

Candidates will undergo rotations in all basic and appropriate advanced imaging modalities. They will sit for the Professional I examination at the end of Phase I when the required criteria are fulfilled.

### Phase II (Year 2 & Year 3)

The general objective is to enable candidates to acquire knowledge, skills and develop good attitude appropriate for the management of patients in the various radiology subspecialties which will be useful in incorporating multi disciplinary approaches.

The candidates are expected to continuously apply the knowledge and skills gained in Phase 1.

Candidates will also prepare and conduct research project leading to a submission of a dissertation. Candidates are required to attend short courses in Research Methodology, Biostatistics and Good Clinical Practice.

They will sit for the Professional II examination at the end of Phase II when the required criteria are fulfilled.

### Phase III (Year 4)

The general objective is for the candidates to function as a 'consultant-in-training' and supervise candidates in Phase 1 and Phase 2.

Candidates will learn and gain experience in Management in Radiology and Quality in Radiology.

Candidates are required to present and submit their dissertation.

They will sit for the Professional III examination at the end of Phase III when the required criteria are fulfilled.

## ASSESSMENT

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### EVALUATION

#### **Continuous assessments**

Continuous assessment will be based on:

- a. Course work / Continuous test (mock exam)
- b. Log book
- c. Supervisor's report
- d. Case Write-ups
- e. Progress of dissertation

This assessment will be done by the Clinical Supervisor(s) at regular intervals (about 4 months before the actual examination) in a prescribed form which must be submitted to the Department of Radiology. Candidates must pass (obtain 50% or higher) the continuous assessment to enable them to sit for the end of phase examination.

The sample of the assessment form is attached as *Appendix H*. This will be used as the basis for the six-monthly feedback / appraisal, highlighting positive and negative areas of performance.

#### **i. Log books**

Candidates are required to fill in log books to document all activities and procedures observed, assisted or performed during the training, which should be checked and countersigned by their supervisors. This will be evidence of satisfactory completion of supervised clinical training.

Please refer to *Appendix I (1-3)* for details of the log book.

#### **ii. Case write-up**

Candidates must submit satisfactory 6 short cases and 2 long cases for their case write-ups to be eligible to sit for the Part II and Part III Examination respectively. Please refer to *Appendix F* for guidelines for submission of case write-ups.

#### **iii. Dissertation**

A research project for the dissertation must commence in the second year under the supervision of a designated supervisor. The proposal must first be presented and approved by the Department Post Graduate Committee (DPGC). The guidelines and procedures in conducting the research is attached as *Appendix G*.



## EXAMINATIONS

All the Professional examinations are conducted by the National Radiology Conjoint Board, comprising of all the IPTAs in Malaysia, which is currently offering the Master of Medicine (Radiology) Programme. Therefore all candidates will sit for common Professional examinations for the Master of Medicine (Radiology) in Malaysia.

Candidates are required to pass the **Part I Examination** of the Master of Medicine (Radiology) by the end of Phase I (Year 1).

### Eligibility to sit for Part I Examinations:

- Completed Phase 1 training
- Submission of logbook and pass continuous assessment

### Format of Part I Examination:

To follow as specified by the National Conjoint Board (Radiology), which comprised of:

- MCQ
- Structured Essay Question (SEQ)
- OSCEs & OSPEs
- Viva-voce

At the end of Phase II (Year 3), candidates will have to sit for **Part II Examination** of the Master of Medicine (Radiology).

### Eligibility to sit for Part II Examinations:

- Passed Professional I examination
- Completed Phase II training
- Submission of logbook and 6 Short Case Write-ups and pass continuous assessment

### Format of Part II Examination:

To follow as specified by the National Conjoint Board (Radiology), which comprised of:

- MCQ I & MCQ II
- Film reporting + MEQ (Modified Essay Question)
- Viva-voce

At the end of Phase III (Year 4), candidates will sit for the **Part III Examination** of the Master of Medicine (Radiology).

### Eligibility to sit for Part III Examinations:

- Passed Professional II examination

- Submission of logbook and 2 Long Case Write-ups and pass continuous assessment
- Satisfactory presentation and submission of dissertation

Format of Part III Examination:

- Rapid Film Reporting
- Submission of dissertation
- Viva-voce for Dissertation

**Re-sit or repeat Professional Examination**

Candidates only need to re-sit or repeat the component that he / she failed which applies for the Part I, Part II and Part III examinations.

If the need arise, the Professional examination will be conducted every six months.

Candidates are allowed to spend a maximum of seven years in the programme in the event that they have to re-sit failed components or defer for reasons approved by the University.

Under special circumstances if arises, candidates have the avenue to appeal to the University for consideration to re-sit or repeat the Professional Examination.

ACADEMIC STAFF

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