The Faculty of Medicine offers several graduate programmes in both non-clinical as well as clinical subjects. In the non-clinical subjects, the programmes lead to the award of the Master of Medical Science and Doctor of Philosophy degrees. A Medical Doctorate programme is also offered through research work. In the clinical subjects, the training is towards the production of specialist and subspecialist degrees conferred by this university.

The departments offering graduate programmes are as follows:

<table>
<thead>
<tr>
<th>Department of Anatomy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Anaesthesiology</td>
</tr>
<tr>
<td>Department of Biochemistry</td>
</tr>
<tr>
<td>Department of Medicine</td>
</tr>
<tr>
<td>Department of Microbiology</td>
</tr>
<tr>
<td>Department of Pharmacology</td>
</tr>
<tr>
<td>Department of Physiology</td>
</tr>
<tr>
<td>Department of Parasitology</td>
</tr>
<tr>
<td>Department of Pathology</td>
</tr>
<tr>
<td>Department of Public Health</td>
</tr>
<tr>
<td>Department of Obstetrics and Gynaecology</td>
</tr>
<tr>
<td>Department of Ophthalmology</td>
</tr>
<tr>
<td>Department of Orthopaedics</td>
</tr>
<tr>
<td>Department of Otorhinolaryngology - Head and Neck</td>
</tr>
<tr>
<td>Department of Paediatrics</td>
</tr>
<tr>
<td>Department of Radiology</td>
</tr>
<tr>
<td>Department of Surgery</td>
</tr>
<tr>
<td>Department of Family Medicine</td>
</tr>
</tbody>
</table>

### TYPES OF PROGRAMME

#### Clinical

The clinical programmes offer the highest professional degrees as listed in various fields of specialization. The clinical programme is conducted over a period of 4 years.

- **Master of Medicine**:
  - Anaesthesiology
  - Internal Medicine
  - Paediatrics
  - Psychiatry
  - Radiology
  - Obstetrics and Gynaecology
  - Family Medicine
  - Community Medicine

- **Master of Surgery**:
  - General Surgery
  - Ophthalmology
  - Orthopaedics
  - Otorhinolaryngology - Head and Neck

- **Master of Pathology**:
  - Haematology
  - Histopathology
  - Forensic Medicine
  - Chemical Pathology
  - Microbiology & Parasitology

- **Advanced Master of Child and Adolescent Psychiatry**
- **Advanced Master of Dermatology**
- **Advanced Master of Cardiology**
- **Advanced Master of Urology**

#### Non-clinical

These programmes offer academic degrees in the following fields of specialization.

- **Master of Medical Science**:
  - Anatomy
  - Biochemistry
  - Pharmacology
  - Microbiology
  - Public Health

- **Doctor of Philosophy**:
  - Anatomy
  - Pharmacology
  - Medical Biochemistry
  - In any Field of Medicine
  - Public Health
Doctorate of Medical Science
(In any Field of Medicine)

Only candidates in the masters of medical science programme involving work leading to a thesis may apply to convert (upgrade) to the PhD programme at the end of the 3rd. semester subject to the approval of the supervisor and the postgraduate committee.

Such candidates will be allowed 2 additional semesters to continue with the PhD programme.

Doctor of Philosophy (PhD)

This is a research degree where the one or more supervisors or a graduate committee supervises the candidate.

SPECIAL ENTRY REQUIREMENT

Applicants for the clinical programmes must possess MBBS, MBChB, MD or its equivalent from any recognised university and must have at least two years of clinical experience after graduation including one year of housemanship. Candidates must also be registered with the Malaysian Medical Council.

DEPARTMENT OF ANATOMY

Master of Medical Science (M Med Sci) (Anatomy)

The Master of Medical Science (M Med Sci) (Anatomy) is a 4 to 6 semester programme by thesis, or a combination of course work and thesis.

COURSES OFFERED

Compulsory Courses
FA 6022 Macroscopic Anatomy
FA 6223 Neuroanatomy
FA 6423 Microscopic Anatomy
FA 6622 Developmental Anatomy
BZ 6012 Comparative Animal Anatomy
FK 6311 Statistics and Experimental Designs
FB 6021 Molecular Genetics and Human Diseases

Elective Courses
FO 3112 General Pathology
FP 6512 Physiologies of Cells and Nerves
FP 6142 Physiologies of Muscles
FP 6123 Receptor and Cell Regulation
FB 6143 Neurochemistry
FM 4032 Pharmacology of the Autonomic Nervous System
FM 6021 Journal Criticism

ACADEMIC STAFF

Head of Department
Dr. Azian Abd. Latiff, MD (Indon.), MmedSci., PhD (UKMalaysia),

Professor
Dr. Abdul Hamid Abd. Rashid, MBBS (Rangoon), MD (Singapore)

DEPARTMENT OF ANAESTHESIOLOGY

(Master of Medicine (Anaesthesiology))

Course Structure

Year I
Basic training in technical skills in the administration of anaesthetics during surgery.

Year II
Further training in anaesthesiology whilst preparing for the Primary Examination involving Physiology, Pharmacology, Basic Statistics and Clinical Measurements.

Year III
Six months of anaesthetic training and six months of elective postings involving 3-monthly postings in either Medicine or Paediatrics and in either the Intensive Care Unit or Accidents and Emergencies.

Year IV
Further anaesthetic training in the specialised fields of anaesthesia eg: Neuroanaesthesia, Obstetric Anaesthesia, Cardiothoracic anaesthesia, Paediatric Anaesthesia and Pain Management.

Examination

Aptitude Test (Year I)
Assessment of candidate at the middle of the year involves:
   a) Supervisor’s report
   b) Viva Voce
   c) Multiple Choice Questions

Unsuccessful candidates may either be advised to discontinue with the course or be allowed to re-sit in six months depending on the recommendation of the supervisor. A candidate is allowed to report only once.

Primary Examination (Year II)

i) Must have 18 months of recognised anaesthetic training
ii) Must pass the Aptitude Test or an equivalent qualification recognised by the Senate.
iii) This examination involves:
   a) Multiple Choice Questions on Physiology, Clinical Measurement, Pharmacology and Basic Statistics.
   b) Essay question on Physiology and Clinical Measurements and Pharmacology and Basic Statistics.
Final Examination (Year IV)

Candidates will qualify to sit for the examination on the following provision:

i) Passed the Primary Examination or
ii) Passed an equivalent examination from a recognised university

The Examination Includes

i) Multiple Choice Questions on Anaesthesiology, Medicine, Surgery, Anatomy, Intensive Care and Pain Management
ii) Essay Questions in anaesthesia and intensive care
iii) Clinical Examination
   - One long case
   - Viva Voce

ACADEMIC STAFF

Head of Department:
Assoc.Prof. (Clinical) Dr. Jaafar Md. Zain, M.B.B.S. (Malaya), M. Med. (Anaes)(UKMalaysia)

Professor
Dr. Karis Misiran,
MD. (UKMalaysia),
PMC, AM (Malaysia), FFARACS, FANZCA

Associate Professor
Dr. Adnan Dan, M.D. (UKM), M. Med. (Anaes) (UKMalaysia)
Dr. Felicia Lim Siew kiau, M.B.B.S.(Malaya), M.Med (Anaes) (UKMalaysia)
Dr. Norsidah Abd. Manap, M.B.B.S. (Sydney), M. Med. (Anaes) (UKMalaysia)
Dr. (clinical) Choy Yin Choy, M.B.B.S. (Malaya), M. Med. (Anaes) (UKMalaysia), FANZCA
Dr. Lee Choon Yee, M.B.B.S.(Malaya), M. Med. (Anaes)(UKMalaysia), FANZCA

Lecturer
Dr. Syed Rozaidi Wafa Syed Hussein Wafa, M.D., M. Med. (Anaes) (UKMalaysia)
Dr. Nurlia Yahya, M.B.B.S. (Malaya), M. Med. (Anaes) (UKMalaysia)
Dr. Jamsari Sukro, M.B.B.S. Hons (Monash), M. Med. (Anaes) (UKMalaysia)
Dr. Lew Yee Sing, M.B.B.S. (Malaya), M. Med. (Anaes) (UKMalaysia), M. Med (Anaes) (Singapore)
Dr. Shuhairah Shamsul Khalil, MB, BCh.Bao (Ireland), M. Med. (Anaes) (UKMalaysia)
Dr. Suresh Kumar P. Shanmugam, M.B.B.S, M. Med. (Anaes)(UKMalaysia)
Dr. Joanna Ooi Sui Min, M.B.B.S., M. Med. (Anaes)(UKMalaysia)
Dr. Noor Hassan Yahya, MB, Ch.Bao (Ireland), M. Med. (Anaes)(UKMalaysia)

DEPARTMENT OF BIOCHEMISTRY

Master of Medical Science (Biochemistry)

The Master of Medical Science (Biochemistry) can be done by course work or full time research. Candidates who choose to do programme coursework are required to take and pass the courses listed below as well as a small research project. Candidates can also choose to do the programme by research only. The research project will be supervised by a supervisor/s. Candidates are also required to write a thesis from the research project and the thesis will be examined by both internal and external examiners or a postgraduate committee and additional member. Candidates might be required to attend certain courses or seminars relevant to his/her research.

COURSES OFFERED

Compulsory Courses
FB 6013 Medical Enzymology
FB 6023 Basic Biochemical Immunology
FB 6033 Control of Metabolism
FB 6043 Molecular Genetic and Human Genetic Diseases

Elective Courses
FB 6113 Inborn Errors of Metabolism
FB 6123 Technique and Application of Genetic Engineering Manipulation
FB 6133 Xenobiotic
FB 6143 Neurochemistry
FB 6153 Cancer at Molecular Level
FB 6163 Biochemical Pharmacology
FB 6173 Endocrinology
FB 6183 Receptor and Control of Cellular Metabolism
FB 6122 Statistic and Experimental Design
FB 4122 Human Physiology
FO 2924 General Anatomy
FO 3112 General Pathology

Doctor of Philosophy (Biochemistry)

Candidates are required to carry out a research project under the supervision of one more supervisor/s or a postgraduate committee. The results from the research must be presented at the Departmental Seminar. Candidates are also required to write the research results in a thesis which will be examined by internal and external examiners or the postgraduate committee. Candidates might be required by the department to follow certain courses and attend relevant seminars.

ACADEMIC STAFF

Head of Department:
Assoc.Prof. Dr. Musalmah Mazlan
BSc(Surrey), MSc(New Castle), PhD (London)

Professor
Dr. Wan Zurinah Wan Ngah, BSc (Hons) (Liverpool), PhD (Wellington)

Associate Professor
Dr. Yasmin Anum Mohd. Yusof, BSc, MSc (Illinois), PhD (FUSA, Australia)

Lecturer
Dr. Nik Rahimah Nik Husain, BSc, PhD (Wellington), MSc (Massey)
DEPARTMENT OF PHARMACOLOGY

Master of Science (Medical Pharmacology)

The department offers the Master of Medical Science (Pharmacology) programme by (i) thesis only or (ii) thesis and course work.

COURSES OFFERED

Core Courses
- FM 6013 Instrumentation and Laboratory Techniques in Pharmacology
- FM 6213 Drug information studies/Journal Critique
- FM 6223 Advance Pharmacology
- FM 6223 Research Seminar Elective Courses
- FM 6412 Special Clinic and/or Special Topics
- SK 6311 Medical Statistics
- FM 6423 Pharmacological Profiles of Selected Drugs

In addition to the above, the department allows (with the recommendation of the supervisor) the registration of other courses related to the research work of the students, offered by other departments in the university. These courses will be taken as electives.

Doctor of Philosophy

Candidates are required to conduct research under the supervision of one or more supervisor, or a graduate committee. The results of the research must be presented in a departmental seminar. In addition the candidates must write the research in the form of a thesis which will be examined by an internal examiner and an external examiner or by the Postgraduate Committee with a few additional members. The candidates may be advised by the supervisor to take courses and seminars related to his research work.

ACADEMIC STAFF

Head of Department:
Assoc.Prof. Dr. Kamsiah Jaarin, D.P.(HONS), MSc (UKMalaysia)

Professor
Dr. Nik Aziz Sulaiman, MBBS (Malaya), MS (Pharm/Tox) (UC Davis) Clin. Pharm, (U.C. San Francisco)

Associate Professor
Dr. Nafeeza Mohd. Ismail, MBBS (Malaya), PhD (UKMalaysia)
Dr. Ima Nirwana Soelaiman, MBBS (Malaya), PhD (UKMalaysia)

Lecturer
Dr. Ahmad Asmadi Yusof, MD, PhD (UKMalaysia)

DEPARTMENT OF PHYSIOLOGY

(Master of Medical Science (Physiology) and Doctor of Philosophy)

The department offers the Master of Medical Science (Physiology), and Doctor of Philosophy by thesis. Candidates are required to do their research under the supervision of a supervisor or a number of supervisors.

ACADEMIC STAFF

Head of Department:
Assoc.Prof.Dr. Mohd. Hamim Rajikin, BSc (UKMalaysia), MSc., PhD (Malaya)

Associate Professor
Dr. Nabishah Mohamad, MD, PhD (UKMalaysia)
Dr. Khatiza Haida Ali, MBBS (Rangoon), MSc (Malaya)

Lecturer
Dr. Noraini Abas, BSc (Q’ld), MSc, Ph.D (Missouri)
Dr. Jamilah Jamaludin, MBBS (Malaya), Ph.D (UKMalaysia)
Dr. Siti Fatimah Ibrahim, B.Sc.Biomedic (Hons), PhD (UKMalaysia)
Dr. Sharifah Azian Syed Yasin, BSc (Shefield), MSc (UKMalaysia), Ph.D (London)

DEPARTMENT OF OBSTETRICS & GYNAECOLOGY

(Master of Obstetrics and Gynaecology)

Course Structure
a) One year of elective posting in medical disciplines other than obstetrics and Gynaecology
b) Three years (in-service) clinical training of Obstetrics and Gynaecology
   The candidate is also required to complete a log Book and to submit a dissertation one each on Obstetrics & Gynaecology.

Examinations

Part I
i) To be held every six months/twelve months
ii) Will comprise Multiple Choice Question in Basic Medical Sciences and Principles of Obstetrics & Gynaecology
iii) After 4 attempts, the candidates must register as a private candidate for 2 more attempts
Part II

i) The final examinations will be held at the end of 4th year.

ii) Will comprise written, clinical and viva voce examinations in Obstetrics and Gynaecology.
   a) Paper I - MCQ - 20 choices
   b) Paper II - Essay
   c) Clinical examination of cases
   d) An oral examination including operative Obstetrics & Gynaecology and OSCE.

DEPARTMENT OF OPHTHALMOLOGY

Master of Surgery (Ophthalmology)

Course Structure

Year I

Basic Medical Ophthalmology Sciences:

Anatomy, Biochemistry, Physiology, Pathology, Microbiology, Optometry and Radiology.

Posting of Candidates:

Candidates will be posted in rotation in certain departments. Wherever possible the teaching sessions will be coordinated with other graduate programmes.

Year II to Year IV

Candidates will undergo clinical posting in Ophthalmology, Neurology, Neurosurgery. 4 - 6 months elective posting in government hospitals.

Examination

The examination will be held in three parts.

Part I

To be held at the end of first year. Will comprise of written and viva voce examinations in Basic Medical and Ophthalmology Sciences.

Part II

Will be at the end of 3rd year and will comprise of written practical and viva voce.

Part III

Final examination will be held at the end of 4th year and will comprise of evaluation of log book, completed research project, the sis/dissertation and viva voce.

ACADEMIC STAFF

Head of Department:
Assoc.Prof. Dr. Che Muhaya Hj Muhamad, MD (UKMalaysia), PhD (London) FRCS (Edin), M.S. (Ophtal) (UKMalaysia), M.Med (Ophtal) (NUS’spore)

Associate Professor
Assoc. Prof. Dr. Ropilah Abd. Rahman, M.D. (Indonesia) M.S. (Ophtal) (UKMalaysia)

Lecturer
Dr. Faridah Hanom Annuar
MBBCh(‘ AinShams), M.S. (Ophtal) (UKMalaysia)
Dr. Normalina Mansor, M.D., M.S. (Ophtal) (UKMalaysia)
Dr. Suraiya Mohamad Shafie, M.D. M.S. (Ophtal) (UKMalaysia)
Dr. Choong Yih Sheng, MBBC(Wales), M.S. (Ophtal) (UKMalaysia)

Dr. Barkeh Hanim Jumaat, MBBS (Mal), M.S. (Ophtal) (UKMalaysia), FRCS (E), M.Med (NUS’spore)
Dr. Norazlina Bachik, B.Sc (Me), M.D., M.S. (Ophtal) (UKMalaysia)
Dr. Chuah Kay Leong, M.B. (UK), FRCOphth (London)
Dr. Wong Jun Shyan, MBBS (S’pore), Mmed (S’pore) FRCS(E)

DEPARTMENT OF ORTHOPAEDICS

Master of Surgery (Orthopaedics)

Course Structure

Year I

Orthopaedics
General Surgery

Year II

Orthopaedics (Accredited Hospital)
Accident and Emergency

Year III & IV

General Orthopaedics
Traumatology
Rehabilitation
Orthotics & Prosthetics
Orthopaedic Radiology
Orthopaedic Pathology

Examinations

The examinations will be held in two parts.

Part I

To be held every 6 months. Will comprise written and viva voce examination in Basic Medical Sciences and Principles of Surgery.

Part II

The final examination will be held at the end of 4th year and will comprise of written, clinical and viva voce examination in :

a) General Orthopaedics and Traumatology
b) Principles of Operative Orthopaedics
c) Clinical examination of cases
d) Orthopaedic Radiology
e) Orthopaedic Pathology
f) Orthotics and Prosthetics

ACADEMIC STAFF

Head of Department
Professor (Clinical) Dr. Masbah Omar, M.B.B.S.(Mal), M.S.Orth (UKMalaysia)

Professor
Dr. Mohamad Abd.Razak, MD, M.S.Orth (UKMalaysia)

Associate Professor
Dr. Sharaf Ibrahim, M.B.B.Ch. (Cairo) F.R.C.S (Glas)
M.S.Orth (UKMalaysia)
Dr. Ya Mohd Hassan Shukor, M.D. M.S.Orth (UKMalaysia)
Dr. Hyzan Mohd Yusof, M.D., M.S. Orth (UKMalaysia)

Lecturer
Dr. Yeap Joo Kong, M.D., M.S.Orth (Malaya)
DEPARTMENT OF OTORHINOLARYNGOLOGY
Master of Surgery (Otorhinolaryngology - Head and Neck)

Course Structure

Year I
Basic Medical Sciences: Otorhinolaryngology/Head and Neck Surgery, Surgery.

Year II
Otorhinolaryngology/Head and Neck Surgery
Plastic Surgery

Year III
Otorhinolaryngology/Head and Neck Surgery
Elective Posting

Year IV
Otorhinolaryngology/Head and Neck Surgery

Examinations
The examinations will be held in two parts:

Part I
To be held every 5 months. Will comprise written and viva voce examination in Basic Medical Sciences and principles of General Surgery.

Part II
The final examinations will be held at the end of 4th year.

Conditions for passing the examination:
I) Candidates, must satisfy the board of examiners in the following sections i.e.

a) Papers
b) Viva
c) Clinical
d) Case write-ups
e) Dissertations

Papers
There will be 2 papers-paper 1 and paper 2. - comprising multiple choice questions and essays.

Viva
Will be conducted in :

a) Otology/Audiology
b) Head/Neck Surgery/Rhinology

Clinical
Will comprise:

a) 1 long case - 20 - 30 minutes
b) A minimum of 2 short cases

Case Writeup
Candidates may be question on any of his writeups.

Dissertation
Candidates may be required to defend his/her dissertation.

ACADEMIC STAFF

Head of Department
Professor (Clinical) Dr. Abdullah Sani Mohamad,
MSc(ORL) (UKMalaysia) FRCS (Edin.) MD (UKMalaysia)

Professor
Dr. Lokman Saim,
MD (UKMalaysia), FRCS (Edin) MSc(ORL) (UKMalaysia)

Associate Professor
Dr. (clinical) Mohd Solahuddin Mohd Kenali,
MD (Belgium), MSc (ORL) (UKMalaysia)

Lecturer
Dr. Mohd Ridzo Mahmud, MD (UKMalaysia)
Dr. Long Chin Wan, MBBS (Lond), FRCS (Glasgow), MSc. (London).
Dr. Primuharsa Putra Sabir Husin Athar, MD, MSc (ORL) (UKMalaysia)

DEPARTMENT OF PAEDIATRICS
Master of Medicine (Paediatrics)

Course Structure

Year I
Basic Medical Sciences, Clinical Paediatrics

Year II and III
The candidates will be given clinical posting by rotation in the various branches of Paediatrics and this includes General Paediatrics, Haematology, Nephrology, Neurology, Preventive and Social Medicine, Gastroenterology and other related courses. At the same time, the candidates has to be involved in research and other projects in his posting.

Year IV
In the Fourth Year, the candidate is allowed an elective posting and a general Paediatrics posting where he/she functions as a specialist under supervision. At the same time, the candidate continues on with his research project or undertakes a new one.

Assessment of examinations
Assessment will be carried out in 3 examinations :

a) End of Year I
i) Report from the supervisor
ii) Submission of four (4) satisfactory case reports
iii) The Part I Examination will consist of a written examination and a viva voce on Basic Medical Sciences and the principles of Medical Paediatrics.
b) End of Year III
   i) Report from the supervisor
   ii) A minimum of twelve (12) case reports must have been submitted prior to being eligible to sit for the Part II examination.
   iii) The Part II Examination will consist of written papers, viva and clinical examinations.

c) End of Year IV
   i) Report from the supervisor
   ii) The candidate must present a satisfactory report on a completed research project.

Eligibility to sit for examinations
Eligibility to sit for examinations will depend upon the factors mentioned below:

a) Part I Examination (End of Year I)
   i) A satisfactory official annual report from the supervisor.
   ii) Four (4) satisfactory case reports

b) Part II Examination (End of Year III)
   i) A satisfactory report from the supervisor
   ii) A satisfactory report of the progress of the research project
   iii) Submission of twelve (12) satisfactory case reports

Candidates who have failed may be allowed to repeat the examination subject to the approval of the faculty and the senate.

Exemptions from the course/examination
A candidate who has obtained MRCP Part I or its equivalent within 3 years can apply for exemption from the first year course if:

i) He has had not less than 1 year Paediatric training in a recognised hospital, which include an equivalent of 9 months in general paediatrics and 3 months in neonatology.
ii) He passes the Mmed (Paed) Part I Examination

Exemptions are made by the Senate on the suggestion of the faculty.

ACADEMIC STAFF
Head of Department:
Assoc.Prof. Dr. Rahmah Rasat,
MBBS (Malaya), M.Med.(Paed) (UKMalaysia)

Professor
Dr. Boo Nem Yun, MBBS (Malaya), MRCP (UK), FRCP (Edin), FRCP (Glasg), FAMM
Dr. Wu Loo Ling, MBBS (Malaya), MRCP (Paeds) (UK) MRCP (Paeds) (Ire), DCH (London)
Dr. Zulkifli Haji Ismail, MBBS (Malaya), M.Med.(Paed) (UKMalaysia), AM
Dr. A. Rahman A. Jamal, MD (UKMalaysia), MRCP (Ire), Ph.D (London)
Dr. Ong Lai Choo, MBBS (Malaya), MRCP UK) DCH Lond
Dr. Kannaneshwari a/p Yoganathan, MBChB (L’pool), MRCP (UK), DCH (London)

DEPARTMENT OF PATHOLOGY
Master of Pathology (Haematology)
Master of Pathology (Histopathology)
Master of Pathology (Forensic)
Master of Pathology (Microbiology & Parasitology)
Master of Pathology (Chemical Pathology)

Course Structure
Stage 1 (1 Year)
Consists of 4 modules of course work:
   a) Microbiology, Immunology and Parasitology
   b) Histopathology and cytopathology
   c) Chemical Pathology and Laboratory Management
   d) Haematology and Blood Transfusion

Stage II (3 Years)
The candidates may choose one of the following fields of specialisation:
   a) Medical Microbiology
   b) Histopathology
   c) Chemical Pathology
   d) Haematology
   e) Forensic Pathology

ACADEMIC STAFF
Head of Department
Professor Dr. Ainoon bt. Othman
MBBS, AM (Malaya), DCP (Lond)

Professor
Dr. Sharifah Noor Akmal
Syed Hussain, MBCh.B(Alex) DCP(Lond) MiAC MD(Otago) AM(Mal)
Dr. Cheong Soon Keng
MBBS (Mal) DCP(Lond), MRCP (UK) FAMMFRCP (Glas.), FRCP (Edin.) FRCPA, FASc
**Year II and III**
Clinical teaching in the form of rotational posting in specific specialities such as Neurology, Nephrology, Cardiology, Gastroenterology, Endocrinology, Haematology, Dermatology, Respiratory Medicine, Rheumatology, Intensive Care and Oncology.

**Year IV**
Ward and Clinic work as a Senior Registrar in Internal Medicine under the supervision and with the guidance of a teaching staff from the Department of Medicine.

**Advanced Master in Cardiology**
The 6 semesters programme are divided into 2 stages:
- **Stage I** - 2 semesters
- **Stage II** - 4 semesters

The programme will include:
1. **Posting CCU/CRW/ICU** - 2 semesters (2 x 6 months)
2. **Cardiology General Ward Posting** - 3 semesters (3 x 6 months)
3. **Elective** - 1 semester (1 x 6 months)
   - **Echocardiography**
   - **Invasive Cardiology**
   - **Electrophysiology**
   - **Molecular Biology**
   - **Interventional Cardiology**
4. **Research Project**

**Advanced Master in Dermatology**
The advanced master programme is full time for 3 years advanced course in Dermatology.

The course will include the following modules:
- An Intensive introductory course
- Regional Postings
- Research
- A period of advanced Training and Revision
- A Subspeciality Posting

**ACADEMIC STAFF**

**Head of Department**
Assoc.Prof.Dr. Aminuddin Ahmad, AM (Mal), MMED (UKMalaysia)

**Professor**
Dr. Raymond Azman Ali, MBBS(Hons), (Monash), MMed (Sing.) MMED (UKMalaysia), MD (Monash), AM (Malaya), FRCP (Ireland)

**Associate Professor**
Dr. Roslan Harun, MD (UKMalaysia), MRCP (UK), PhD (Leeds)
Dr. S. Fadilah Abdul Wahid, MD, MMED (UKMalaysia)
Lecturer
Dr. Abdul Latiff Mohamed, MA (Malaya), MRCP (UK), PhD (Leeds)
Dr. Saadiah Sulaiman, MBChB BAO (Ireland), LRCP&SI MMED (UKMalaysia), AM (Malaya)
Dr. Jeffrey Abu Hassan, MBChB BAO (Ireland), LRCP&SI MMED (UKMalaysia), AM (Malaya)
Dr. Mohd Daud Sulaiman, MD, MMED (UKMalaysia)
Dr. Hendrick Chia Miah Yang, MBBS (London), MRCP (Ireland)
Dr. Yeo Chee Kian, MD (Hons), MMED (UKMalaysia) MRCP (UK)
Dr. Nor Azmi Kamaruddin, MBBS (Monash), MMed (UKMalaysia)
Dr. Rostina Abdul Manap, MBBS (Hons) (Monash), MRCP (UK) MMED (UKMalaysia)
Dr. Tan Huck Joo, MB BCh (Ireland), BAO, MRCP (UK), AM (Malaya)
Dr. Tamil Selvan Muthusamy, MBBS (Malaya), MRCP (UK)
Dr. Yoon Lai Lan, MB BCh BAO (Belf), MRCP (UK)
Dr. Ahmad Faizal Mohd Perdaus, MD, MMED (UKMalaysia)
Dr. Saiful Azmi @ Jamauddin Yahaya, MD, M.MED.(UKMalaysia)
Dr. Hamidon Basri, BSc, MD., M.MED(UKMalaysia)
Dr. Ahmad Fauzi Abdul Rahman, BSc, MD, M.MED (UKMalaysia)

DEPARTMENT OF PSYCHIATRY

Master of Medicine (Psychiatry)

Course Structure

Year I
Basic Medical Sciences
- Posting at UKM/GHKL
Basic Behavioural Sciences
- For 5 weeks
Psychiatric Posting (clinical)
- At UKM/GHKL and accredited hospital

Year II
Clinical Posting at UKM/GHKL and accredited hospitals.
Medical/Neurology and Neurosurgery posting.

Year III
Psychiatric Posting (Clinical) at UKM/GHKL Psychiatric Hospital Posting (Forensic/Social/M. Retardation/Rehabilitation/Liaison/child and Adolescent Psychiatric Posting) Psychotherapy : group, marital, family, sexual and behavioural.

Year IV
Elective posting related to Psychiatry (project)
Clinical Psychiatric posting (at UKM/GHKL and accredited hospitals).

Advanced Master of Child and Adolescent Psychiatry

The advanced master program is full time for 3 semesters (18 months).

Course Structure

- Child and Adolescent Psychiatry conferences
- Child and Adolescent Psychiatry seminars
- Case Presentation
- Journal Club
- Child Abuse conferences
- On Call duty not least the ratio 1:4

The structure training programme will include:
- Child Development Observations
- Fundamental Skills
- Research and Evaluation Skills
- Population Health & Epidemiology
- Development of Child and Family
- Indigenous Issues
- Clinical Problem Solving
- Models of Psychopathology
- Introduction to Family Therapy
- Neuropsychiatry
- Transcultural Issues
- CBT, Psychopharmacology and Treatment Planning
- Individual Therapy with Children and adolescents
- The Child Psychiatrist in the Public Sector
- Range of interventions
- Ethics and Advocacy
- Consultancy skills
- Medicolegal aspects of Child and adolescent Psychiatry
- Professional Development

ACADEMIC STAFF

Head of Department
Professor (Clinical) Dr. Mohamed Hatta Shaharom, MBCh (Cairo), MMed (Psych) (UKMalaysia), CFFP (MO)

Associate Professor
Dr. T. Maniam, MBBS (Malaya), MPM (Malaya)
Dr. Abdul Hamid Abd. Rahman, MD, MMed (Psych) (UKMalaysia)

Lecturer
Dr. Osman Che’ Bakar, MD, MMed (Psych) (UKMalaysia)
Dr. Zasmani Shafiee, MBBS (Malaya), MMed (Psych) (UKMalaysia), Dip Child Adol. Psych (Lon)
Dr. Ainsah Shafiee, MD, MMed (Psych), PhD (UKMalaysia)
Dr. Rosdilah Omar, MD, MMed (Psych), (UKMalaysia)
Dr. Hatta Sidi, MBBS (Malaya), MMed (Psych) (UKMalaysia)
Dr. Susan Tan Mooi Koon, MD, MMed (Psych) (UKMalaysia)
Hanizam Abd. Ghani, BA Psychology (Missouri, USA), MA Clinical Psychology (UKMalaysia)
Dhachayani a/p Sinniah, BA (Hons), MA Clinical Psychology (UKMalaysia)
DEPARTMENT OF RADIOLOGY

Master of Medicine (Radiology)

Course Structure

Year I
Candidates are given lectures and tutorials in preparation for Part I M.Med. (Radiology) covering radiological physics, radiography, radiographic anatomy as seen on conventional plain radiographs studies using contrast media and sectional images from ultrasonography (U/S), computed tomography (CT), magnetic resonance imaging (MRI) and nuclear scintigraphy, radiological techniques, contract media and related drugs. Practical training requires candidates to observe plain radiographic examinations: to perform radiological examinations using contrast media, computed tomography, ultrasound, isotopes and magnetic resonance images: and to report radiographs. Part I examination is held at the end of Year I. Candidates are required to submit one case report and may commence on a research project.

Year II
Candidates are given lectures on basic interpretation of radiographs. Practical training requires candidates perform all radiologic procedures as in Year I and also reporting of radiographs. Candidates are required of radiographs. Candidates are required to submit one case report and may commence or continue with the research project.

Year III
Candidates are given tutorials where they actively participate in oral discussion on abnormal radiographs from all systems and all imaging modalities. Practical training as Year I and II. Part II examination is held at the end of Year III. Candidates are required to submit one case report and should commence on a research project.

Year IV
Candidates continue to participate in practical training as in Year I, II and III and may elect to pursue greater experience in a particular imaging modality. Candidates are expected to supervise junior radiologists and participate in clinico-radiologists and participate in clinico-radiological sessions. Two more case reports should be submitted and research project completed. An evaluation of the case reports and research project will be done at the end of the year.

ACADEMIC STAFF

Head of Department
Assoc. Prof. Dr. Nafikudin Hj. Mahmud, MD (UKMalaysia), M.Med (Rad) (UKMalaysia)

Professor
Dr. Zulfikar Muhamed Annuar, MBBS (Malaya), M.Med (Rad) (UKMalaysia)

Associate Professor
Dr. Maimunah Atan, MBBS (Mal), M.Med (Rad) (UKMalaysia)
Dr. Zahrah Mohamed MD, M.Med (Rad) (UKMalaysia)
Dr. Fuad Ismail, MD (UKMalaysia), FFRCSI, FRCR (UK)
Dr. Shanti a/p Sivanesan, MBBS (Mal), FRCR (UK) M.Med (Rad) (UKMalaysia)
Dr. Toh Siew Tee, MD, M.Med (Rad) (UKMalaysia), FRCP (UK)

DEPARTMENT OF SURGERY

(Master of Surgery (General Surgery)

Course Structure

Year I
General Surgery, Orthopaedics (6 months each) Intensive Course in Surgery (Basic Sciences) Part I for 2 weeks The Part I Examinations will be held in the same year

Year II
Accident & emergency (6 months) Electives in 4 of the following:
- Urology
- Neurosurgery
- Plastic Surgery
- Cardiothoracic Surgery
- Paediatric Surgery

Year III
General Surgery: 8 months posting with Dept. of Surgery UKM 4 months posting with Dept. of Surgery KKM (Vascular Hepatobiliary units)

Year IV
General Surgery (12 months) The Part II Examinations will be held at the end of year 4.

Candidates will be involved in case writeups and research dissertation.

ACADEMIC STAFF

Head of Department:
Professor (Clinical) Dr. Jasmi Ali, MBChB (Cairo), FRCS (Edin.) MS (UKMalaysia)

Professor
Dr. Freda A. Meah, MBBS (Rangoon), FRACS (Aust)
Dr. Haron Ahmad MD, MS (UKMalaysia)
Dr. C.R. Thambidorai, MBBS (Madras), MS (Madras), FRCS (Edin.), FRACS (Paeds. Surg.) FICS, MNAMS.

Associate Professor
Dr. Kamil Nordin, MBBCh (Dublin) FRCS (Edin.)
Dr. Zurin Adnan Abdul Rahman, MD, MS (UKMalaysia)
Dr. Mohamad Ismail Ali, MBBS (Malaya), FRCS (Ireland), MS (UKMalaysia)
Dr. Rohaizak Mohammad, MBChB, FRCS (Glasgow), MS (UKMalaysia)
Dr. Norlia Abdullah, MBBS (Malaya), MS (UKMalaysia)
Dr. Mohd. Rashid Omar, MD, MS (UKMalaysia)
Dr. Sukumar a/l Nadeson, MBBS (India), MS (UKMalaysia)
Dr. Anill Gandhi, MBBS (India), MS (India)
Dr. Syed Mohd Adeeb Syed Jalaluddin, MBBS (Malaya), MS (UKMalaysia)
Dr. Fikri Abdullah, MBChB (Wales), FRCS (Edin)
Dr. Shaharin Shaharuddin, MBChB BAO (Belfast) MS (UKMalaysia)
Dr. Zulkifli Zainuddin, MD, (UKM), MS (UKMalaysia)
Dr. Mohd Nazri Jemaan, MD, MS (UKMalaysia)
Dr. Azizi Abu Bakar, MBBS (Malaya), MS (UKMalaysia)

DEPARTMENT OF COMMUNITY HEALTH

Doctor of Philosophy: Thesis only.

Candidates are required to prepare a thesis based on specialty and with advice from the supervisor.

Master of Community Health: Course work and practical/clinical/study project

Each semester comprises 24 weeks, and of the 24 weeks, 20 weeks is for course work and study project while 4 weeks is for examination. All compulsory courses are to be taken in the 1st semester.

The courses work comprises of not less than 30 units. This comprises of 12 units of compulsory courses, 3 units for study projects report and 15 units for study projects report and 15 units of elective courses. Candidates are required to pass all specified examination.

COURSES OFFERED

Compulsory Courses
FK 6013 Basic Medical Statistics
FK 6213 Basic Epidemiology
FK 6413 Principles of Health Management
FK 6613 Principles of Environmental and Occupational Health

Elective Courses

Epidemiology and Medical Statistics
FK 6123 Biostatistics
FK 6121 Biostatistics 2
FK 6113 Research Methodology
FK 6133 Epidemiology of Tropical Diseases
FK 6323 Epidemiology of Communicable and Non-Communicable Diseases
FK 6333 Clinical Statistics and Epidemiology

Health Management
FK 6533 Organizational Behaviour and Health Personal Management
FK 6523 Health Program Planning and Evaluation
FK 6733 Health Economics
FK 6723 Primary Health Care
FK 6933 Management of Ambulatory, Health Centre and Hospital Services
FK 6922 Health Information Management in Health Care Systems

Family Health
FK 7113 Principles in Family Health

FK 7123 Physical and Social Development of Children
FK 7122 Adolescent Health
FK 7323 Dynamics of Population Growth
FK 7121 Women and Health

Health Education
FK 7313 Principles of Health Education
FK 7322 Preparation and Use of Audio Visual Equipment
FK 7513 Health Communication
FK 7523 Group Dynamic
FK 7133 Mental Health Counselling and Consultation
FK 7522 Health Education Seminar

Environmental Health
FK 7722 Environmental Engineering and Sanitation
FK 7922 Water and Air Quality
FK 7533 Environmental Assessment
FK 7732 Environmental Management
FK 7733 Environmental Toxicology

Occupational Health
FK 6124 Occupational Medicine
FK 6321 Industri Hygiene
FK 6521 Ergonomics
FK 6721 Occupational Health Education
FK 6921 Occupational Health Epidemiology
FK 6132 Occupational Health Seminar and Forum
FK 7333 Occupational Health Practical
FK 7933 Occupational Clinic

Nutrition
FK 6122 Nutrition for Susceptible Groups
FK 6112 Nutrition and Health
FK 7132 Clinical Nutrition Laboratory (1)
FK 6322 Nutrition Therapy
FK 6312 Nutrition Physiology
FK 6923 Community Nutrition Laboratory
FK 6933 Clinical Nutrition Laboratory (2)
FK 7321 Seminars in Nutrition
FK 7521 Clinical Nutrition Problems (1)
FK 7532 Clinical Nutrition Problems (2)

ACADEMIC STAFF

Head of Department:
Professor Dr. Syed Mohamed Al Junid Syed Junid,
MD (UKMalaysia), MSC (Sing.), Ph.D. (London), DLSHTM (London), FAMM

Professor
Professor Dr. Osman Ali, MD, MPH (Tulane), Ph.D (UKMalaysia)
Dr. Krishna Gopal Rampal, MBBS (Agra), MPH (Bangkok),
Ph.D (John Hopkin)

Associate Professor
Dr. Md. Idris Mohd Nor, MD (UKMalaysia), MPH (Hawaii)
Dr. Noor Hassim Ismail, MD (UKMalaysia, MSc. (Occ. Med)
(S’pore)
Dr. Hanafiah Mohd. Salleh, MBBS (Lahore), M.P.H. (Hawaii)
DEPARTMENT OF FAMILY MEDICINE

Masters in Family Medicine

1. Structure of the training Programme

   The Master's course in Family Medicine is a four-year training programme consisting of:
   i. Family Medicine Teaching Programme
   a) Self directed learning and distance education throughout the 4 years:
   b) 3 monthly weekend courses
   ii. Rotational clinical postings in hospitals
   iii. Family Practice Postings
       a) Urban or Semi-rural polyclinic
       b) Health Centre

2. Aims of the Programme

   The primary aim of the programme is to equip the trainee with the knowledge, skills and attitudes of a competent and caring Family Medicine Specialist who would then be able to provide high quality primary comprehensive, and continuing care to the individual and his/her family.

   The programme also aims at ensuring commitment by the Family Medicine Specialist to life-long self-directed learning and continuing education.

3. Overview of the Programme

Year I

   Intensive introductory course 2 weeks
   Internal Medicine 3 months
   Obstetrics & Gynaecology 3 months
   Paediatrics 3 months
   Surgery 3 months

Year II

   Psychiatry 3 months
   Orthopaedic & Traumatology 3 months
   Short Postings: 3 months
   ENT (2 weeks)
   Ophthalmology (2 weeks)
   Dermatology/STD (2 weeks)
   Radiology (2 weeks)
   Anaesthesiology (2 weeks)

Year III

   Medicine 3 months
   Urban/Semirural outpatient 2 months
   Clinic/polyclinic Accident & Emergency 1 month
   Health Centre 6 months

Year IV

   Health Centre 12 months

4. Special Features

   i. An intensive introductory course will be held at UKM for all trainees on entry into the training programme in Year I.

   ii. All the trainees will be at a distance from the academic teaching centre ie. UKM as they will be based in the hospitals of the Ministry of Health for the rotational clinical postings in Year I to III.

   iii. Self-directed learning sessions:

      One afternoon per week must be put aside by the trainee for self-study.

   iv. Distance Education:

      a. There would be learning packages in the form of printed matter/cassette tapes/video tapes/computer programmes which would be sent to the trainees regularly from the Department of Family Medicine, UKM.

      b. Teleconferencing/teletutorial sessions would be held on one afternoon every week during which the trainees would be in contact with the academic teaching centre in UKM and also with each other.

   v. Weekend courses every 3 months at the academic teaching centre in UKM.

5. Integrated Experiences

   There would be continuous concomittant, exposure to the Family Medicine content throughout the course:

   i. Regular attendance at the outpatient clinic, one afternoon every week during the hospital-based clinical rotations.

   ii. Casualty calls once every two weeks during the hospital-based clinical rotations.

   iii. Teleconferencing sessions, one afternoon every week.


ASSESSMENT AND EXAMINATIONS

Part I: End of Year I
Part II: End of Year IV
Conditions required to qualify for the examinations:

Part I:
   i) 4 completed Family case studies
   ii) Satisfactory Supervisoris reports

Part II:
   i) Completion of research project 4 months prior to examination
   ii) 8 completed Family Case Studies
   iii) Satisfactory Supervisoris reports

Format of Examinations
Part I:
   MCQS Problem
   Management Paper I & II

Part II:
   Theory: Essay Modified
   Essay questions MEQS
   Problem Management Paper I & II

Clinical:
Short cases (3 or 4) Long case (1) Telephone interview
Brief consultations

Viva:
Includes data interpretation, X-rays, equipment etc.

Research:
Oral
Presentation
Project 1
External 1
Assessor 1
Internal assessor

DEPARTMENT OF MEDICAL MICROBIOLOGY & IMMUNOLOGY

A. Master of Pathology (Microbiology & Parasitology)
   Please refer to Masters of Pathology (Microbiology & Parasitology) offered by Department of Pathology.

B. Master of Medical Science (Microbiology & Immunology)
   Master of Medical Science (Microbiology & Immunology) can be done by full time research under supervision. Preference is given to candidates who have gone through the course leading to Diploma in Medical Microbiology (DMM) and/or experience in clinical/diagnostic microbiology; Candidates are required to participate in a workshop on research methodology, present a seminar and results of their research to the department. Candidates are required to write the research results in a thesis which will be examined by internal and external examiners or the postgraduate committee.

C. Doctor of Philosophy (Medical Microbiology & Immunology):
   Candidates are required to carry out a research project under supervision of one or more supervisor/s or a postgraduate committee. The results from the research must be presented at the departmental seminar. Candidates are also required to write the research results in a thesis which will be examined by internal and external examiners or the postgraduate committee. Candidates might be required by the department to follow certain courses and attend relevant seminars.

ACADEMIC STAFF

Head of Department
Dr. Samiah Yasmin Abd. Kadir, MD, M.Med(UMalaysia)

Professor
Dr. Chin Gek Liew,
MBBS (Malaya), MRCP (UK), FRCP (Edin.), FRCP (London), FAMM, AM (Mal)

Lecturer
Dr. Bo Htut, MBBS (Rangoon), DCH (London)
Dr. Mohammad Tauffik bin Md. Noor, MD, M.MED (UKMalaysia)
Dr. Anirudhan Govind, MBBS (India), MPH (Mal)
Dr. Khairani Omar, MD, M.Med (UKMalaysia)
Dr. Noorlaili Mohd Taufik, MD, M.Med (UKMalaysia)
Dr. Loh Keng Yin, MD, M.Med (UKMalaysia)

ACADEMIC STAFF

Head of Department
Assoc.Prof.Dr. Zauyah Yusuf,
MBBS (Malaya), MSc (London), PhD (UKMalaysia), AM (Malaysia)

Professor
Dr. Azman Lim @ Lim Kok Eow, MBBS (Malaya), MSc (London), FRCPATH (UK), FM (Malaysia)
Dr. Ramelah Mohamed, Drs (ITB) DIP. Med. Micro (Phil), PhD (London), AM (Malaysia)
Dr. Yasmin Abdul Malik, MBBS (Malaya), MSc (Lond.) FRCPATH (UK), AM (Malaysia)

Associate Professor
Dr. Ilina Isaha, MBBS (Malaya), MSc (London), AM (Malaysia)
Dr. Sabiha Pit, MD (UKMalaysia), MSc (London), FRCPATH (UK)
Dr. Nordiah Awang Jalil, MD (Malaya), MSc (London)

Lecturer
Dr. Tan Ay Eeng, M.D, MOG (UKMalaysia)
Dr. Shuaila Ahmad, M.D., MOG (UKMalaysia)
Dr. Nor Azlin Ismail, BscMed (St. Andrews), MBCh (Glasgow), M.Med O&G (UKMalaysia)
Dr. Norzilawati Mohd Na, MD, MOG (UKMalaysia)
Dr. Zainurrashid Zainuddin, MBBCh. BAO (Dublin), DRCOG, MRCOG (UK)
Dr. Ani Amelia Zainuddin, MBBS (New Castle), MRCOG Part 1(UK)
Dr. Natasha Ains Mohd Nor, BSc, MBBS (New Castle)
DEPARTMENT OF NURSING

Head of Department
Assoc.Prof. Nik Safiah Nik Ismail, RN, SCM (Malaysia), BScN
(Alb.Can) MScN (Ind. USA), MHP (NSW, Aus) Diploma, BSc
(Nursing) (Malaya)