



UNIVERSITI  
MALAYA

SESSION  
2019/2020



FACULTY OF MEDICINE

# UNDERGRADUATE GUIDEBOOK

BACHELOR OF BIOMEDICAL SCIENCE  
BACHELOR OF NURSING SCIENCE



<https://medicine.um.edu.my/undergraduate>

# INDEX

Bil	Title	Page
1	Message from Dean	1
2	Message Deputy Dean	2
3	Undergraduate Administration	3
4	Management of Dean's Office	4
5	Management of University Malaya Medical Centre	5
6	Educational Goals of the University of Malaya	6
7	Vision & Mission University of Malaya	7
8	Vision & Mission Faculty of Medicine	8
9	Department/Unit - Academic Staff	9
10	History of the Faculty of Medicine	38
11	Faculty Facilities	41
12	Campus Facilities	49
13	Faculty Building Plan	52
14	Campus Map	53
15	Student Dress Code	54
16	Academic Calendar Session 2019/2020	55
17	List of Undergraduate Programmes in the Faculty	56
18	<b>Bachelor of Biomedical Science</b>	57
18.1	Message from Head of Department	58
18.2	Academic Staff	59
18.3	General Staff	63
18.4	Introduction	66
18.5	Programme Objectives/Outcomes	67
18.6	Academic Programme & Course Structure	68
18.7	Programme Structure - Malaysian Students	69
18.8	Programme Structure - International Students	70
18.9	Course Structure	71
18.10	Course Summary	75





## Message from Dean

Welcome to the Faculty of Medicine, University of Malaya.

Congratulations! Your acceptance into one of our undergraduate programmes at the Faculty of Medicine, University of Malaya is a culmination of many years of hard work. You have been selected amongst several hundred applicants who have vied to enter into our prestigious Faculty. The University of Malaya's Faculty of Medicine is recognised as a national leader in medicine and the health sciences with many distinguished academic staff that are nationally and internationally renowned.

The Faculty in recent years has strived to make all of our programs exciting and relevant to prepare you for the challenges of a career in the medical sciences in this new era of rapid changes in health, technology and information. You will find that your university education will be vastly different from what you have experienced at school. Unlike in school, you will be expected to undertake more self-directed and independent learning with support from dedicated and experienced Faculty members. All of this is to prepare you to enter into the workforce where attributes such as critical and analytical thinking, independence and creativity are sought after.

The courses that you will undertake in the next 4-5 years will prepare you for a career to enter into the healthcare profession whether as a doctor, nurse or pharmacist providing direct patient care or providing essential behind the scenes support. The lectures, tutorials and the practicals that you will be attending in the course of the next few years is however but a foundation and a stepping stone to what we hope will prepare you for a life-long learning experience. In the words of perhaps one of the most accomplished and greatest physicians in recent times, Sir William Osler,

***"The hardest conviction to get into the mind of a beginner is that the education upon which he is engaged is not a college course, not a medical course, but a life course, for which the work of a few years under teachers is but a preparation."***

We hope that you will take the opportunity to engage productively not just with your academic lecturers and mentors but also with your fellow students some of whom have come from different parts of the world. We also sincerely hope that your campus life will not be restricted to the pursuit of an academic qualification alone, but that you will use this opportunity to enrich your minds in other worthy pursuit whether it is community service, sports or music and culture.

I wish you all well in your pursuit of an academic degree in the medical sciences and hope that you will emerge from your time at the Faculty of Medicine University of Malaya as a life-long learner with a passion and commitment for your chosen vocation.

**PROFESSOR DATO' DR. ADEEBA BINTI KAMARULZAMAN**  
Dean  
Faculty of Medicine





## Message from Deputy Dean

On behalf of the Faculty of Medicine and all the academic staff, I extend a very warm welcome to each and every one of you. As a faculty, we would like your education in this institution to be a rewarding and an enriching experience.

This handbook has been prepared as a guide for you in the faculty. Its content is by no means exhaustive but will be very useful for you especially in your first year in this faculty.

Being a student in this faculty will take a good 4- 5 years of your life depending on the programme you enrolled for. To obtain the degree, you have to put in a lot of hard work powered by dedication, sacrifice, unwavering determination, perseverance and commitment to ensure you will become not only a knowledgeable and skilful health care professional but also one who practices holistically. The education in this faculty does not stop upon graduation, but merely acts as a stepping stone to a life-time of learning in your chosen field.

Medical education does not only revolve around science, but also involves the art of practising it. We want you to be curious about the programme. Everything that goes on in this institution is a learning opportunity. The skills that you will acquire include good communication skills between you and your colleagues, your patients and their families (when applicable) and also with members of the community. You will find that your teachers, seniors and friends are mentors in your quest to become good and ethical health care professionals, thus providing you the best apprenticeship you could possibly have. The programme in the faculty is also about character building, and, you will need to develop appropriate attitudes that contribute to the qualities necessary of your chosen profession.

We hope this guidebook can be fully used to your advantage in better understanding the programme and the people entrusted to run it. The Dean's Office along with all its support groups will try to make your stay a memorable and a fruitful one.

We would like to wish you every success in your programme and hope that the years that you will spend in this faculty will be among the best in your life. Again, I wish you a warm welcome and I look forward to meeting you during the course of your study with us.

**PROFESSOR DATO' DR YANG FARIDAH ABDUL AZIZ**  
Deputy Dean of Undergraduate



## UNDERGRADUATE ADMINISTRATION



**PROFESSOR DATO' DR. ADEEBA  
KAMARULZAMAN**  
Dean  
[adeeba@ummc.edu.my](mailto:adeeba@ummc.edu.my)  
603-79492050



**PROFESSOR DATO' DR. YANG  
FARIDAH ABDUL AZIZ**  
Deputy Dean  
[yangf@ummc.edu.my](mailto:yangf@ummc.edu.my)  
[ddu@ummc.edu.my](mailto:ddu@ummc.edu.my)  
603-79492156



**AZLINA SARDI**  
Principal Assistant Registrar  
[azlinas@um.edu.my](mailto:azlinas@um.edu.my)  
[azlinas@ummc.edu.my](mailto:azlinas@ummc.edu.my)  
603-79493796



**SITI HABSAH MAT JAIS**  
Secretary  
[habsah@ummc.edu.my](mailto:habsah@ummc.edu.my)  
603-79492156



**NORANA ABU**  
Assistant Administrative Officer  
[norana@um.edu.my](mailto:norana@um.edu.my)  
603-7967584



**MOHD KHAIDIR ZULKEPLI**  
Assistant Administrative Officer  
[khaidir@um.edu.my](mailto:khaidir@um.edu.my)  
603-79674941



**SITI ZALEHA AHMAD**  
Administrative Assistant  
(Clerical/Operations)  
[zaleha@ummc.edu.my](mailto:zaleha@ummc.edu.my)  
603-79492105



**NORASLINDA AZAHARI**  
Administrative Assistant  
(Clerical/Operations)  
[noraslinda@ummc.edu.my](mailto:noraslinda@ummc.edu.my)  
603-79676686



**NORMADINAH ABDUL LATIFF**  
Administrative Assistant  
(Clerical/Operations)  
[bdina@um.edu.my](mailto:bdina@um.edu.my)  
603-79674941



**NURUL HAYATI MOKHTAR**  
Administrative Assistant  
(Clerical/Operations)  
[nurul85@um.edu.my](mailto:nurul85@um.edu.my)  
603-79673796



**SAPIAH SARIP**  
Administrative Assistant  
(Clerical/Operations)  
[sapiahs@um.edu.my](mailto:sapiahs@um.edu.my)  
[sapiahs@ummc.edu.my](mailto:sapiahs@ummc.edu.my)  
603-79676686



**SALWA MOHD SHARIF**  
(Klang Campus)  
Administrative Assistant  
(Clerical/Operations)  
[salwas@um.edu.my](mailto:salwas@um.edu.my)  
603-33701066



## MANAGEMENT OF DEAN'S OFFICE

### DEAN

Professor Dato' Dr Adeeba Kamarulzaman

Tel: 03-79492050  
Fax: 03-79540533  
Email: [adeeba@ummc.edu.my](mailto:adeeba@ummc.edu.my)

### DEPUTY DEANS

Professor Dr Maznah Dahlui  
(Postgraduate)

Tel: 03-79492108  
Fax: 03-79676684  
Email: [maznahd@ummc.edu.my](mailto:maznahd@ummc.edu.my)

Professor Dato' Dr. Yang Faridah Abdul Aziz  
(Undergraduate)

Tel: 03-79492156  
Fax: 03-79676684  
Email: [yangf@ummc.edu.my](mailto:yangf@ummc.edu.my)  
[ddu@ummc.edu.my](mailto:ddu@ummc.edu.my)

Assoc. Professor Dr Wan Yusof Wan Sulaiman  
(Development & Infrastructure)

Tel: 03-79492103  
Fax: 03-79540533  
Email: [wanyusoff@ummc.edu.my](mailto:wanyusoff@ummc.edu.my)

Professor Dr CJ Ng Chirk Jenn  
(Research)

Tel: 03-79492103 / 7949207703-  
Fax: 79540533  
Email: [ngcj@ummc.edu.my](mailto:ngcj@ummc.edu.my)

### ADMINISTRATION

Sarinah Sallip  
Deputy Registrar

Tel: 03-79672077  
Fax: 03-79676684  
Email: [sarinahs@um.edu.my](mailto:sarinahs@um.edu.my)

Khalidah Mushar  
Senior Principal Assistant Registrar

Tel: 03-79676669  
Fax: 03-79676684  
Email: [khalidah@um.edu.my](mailto:khalidah@um.edu.my)  
[mkhalidah@ummc.edu.my](mailto:mkhalidah@ummc.edu.my)

Azlina Sardi  
Principal Assistant Registrar

Tel: 03-79673796  
Fax: 03-79676684  
Email: [azlinas@um.edu.my](mailto:azlinas@um.edu.my)  
[azlinas@ummc.edu.my](mailto:azlinas@ummc.edu.my)

Mardiansha Kalimuddin  
Senior Assistant Registrar

Tel: 03-79677503  
Fax: 03-79676684  
Email: [mardiansha@um.edu.my](mailto:mardiansha@um.edu.my)  
[mardiansha@ummc.edu.my](mailto:mardiansha@ummc.edu.my)

Asiah Ishak  
Financial Officer

Tel: 03-79677585  
Fax: 03-79568841  
Email: [asiahishak@um.edu.my](mailto:asiahishak@um.edu.my)

# MANAGEMENT OF UNIVERSITY MALAYA MEDICAL CENTRE

---

**Director**

Professor Dr Tunku Kamarul Zaman bin Tunku Zainol Abidin

Tel: 03-79492000  
Fax: 03-79582648  
Email: [tkzrea@ummc.edu.my](mailto:tkzrea@ummc.edu.my)

**Deputy Director (Clinical)**

Assoc. Professor Dr Nazirah binti Hasnan

Tel: 03-79492001  
Fax: 03-79492030  
Email: [nazirah@ummc.edu.my](mailto:nazirah@ummc.edu.my)

**Deputy Director (Surgical)**

Assoc. Professor Dr Azura binti Mansor

Tel: 03-79494907  
Fax: 03-79492030  
Email: [azuramansor@ummc.edu.my](mailto:azuramansor@ummc.edu.my)

**Deputy Director (Professional)**

Mdm Che Zuraini Sulaiman

Tel: 03-79494409  
Fax: 03-79492030  
Email: [zuraini@ummc.edu.my](mailto:zuraini@ummc.edu.my)

**Deputy Director (Management)**

Mr. Iskandar bin Ahmad

Tel: 03-79492002  
Fax: 03-79492030  
Email: [isk@ummc.edu.my](mailto:isk@ummc.edu.my)

**Head of Department, Human Resource**

Mr Khairul Anuar Yahya

Tel: 03-79492161  
Fax: 03-79494607  
Email: [khairul@ummc.edu.my](mailto:khairul@ummc.edu.my)





# EDUCATIONAL GOALS OF THE UNIVERSITY OF MALAYA

---

Graduates of the University of Malaya will be able to:

1. Demonstrate knowledge and skills in their field of study, appropriate research and professional practices, and the processes of critical thinking, creative thinking, and problem solving.
2. Use effective methods including contemporary technology to manage information, to achieve diverse professional goals aligned with professional standards and make decisions based on appropriate data and information.
3. Engage in continuous self-improvement and professional growth, support the professional development of others, and display positive leadership and professional behaviours and disposition for effective practice.
4. Communicate effectively with other professionals, and the community, and project a coherent vision of social responsibilities.
5. Appreciate and continue to be guided by the University's core values of integrity, respect, academic freedom, open-mindedness, accountability, professionalism, meritocracy, teamwork, creativity and social responsibility.



# VISION & MISSION

## UNIVERSITY OF MALAYA

---



### VISION

To be an internationally renowned institution of higher learning in research, innovation, publication and teaching.

### MISSION

To advance knowledge and learning through  
quality research and education for the nation  
and for humanity.



# VISION & MISSION

## FACULTY OF MEDICINE

---



### VISION

To become a Centre of Excellence in Medicine

### MISSION

To become a premier medical centre that is world renown and to provide excellent health care, education, and research programmes delivered with efficiency, sensitivity and enthusiasm.



# DEPARTMENT/UNIT | ACADEMIC STAFF

As per (23.08.2019)

9

## ANAESTHESIOLOGY

DEPARTMENT/UNIT | ACADEMIC STAFF

### **Head of Department:**

**Associate Professors Dr Ina Ismiarti bt. Shariffuddin** MBChB (DUNDEE), M. Anaes (Mal)

Tel: 03-7949 2052

Fax: 03-7955 6705

Email: [ismarti@ummc.edu.my](mailto:ismarti@ummc.edu.my) | [inashariffuddin@gmail.com](mailto:inashariffuddin@gmail.com)

### **Professor:**

Professor Dr Marzida Mansor MD (UKM), M. Anaes (Mal)

### **Associate Professors:**

Associate Professor Dr Ina Ismiarti bt. Shariffuddin MBChB (DUNDEE), M. Anaes (Mal)

Associate Professor Dr Loh Pui San MBBS (Mal), M Anaes (UKM)

Associate Professor Dr Mohd Shahnaz bin Hasan MBBS (Mal), M Anaes (Mal)

### **Medical Lecturers:**

Dr Noorjahan Haneem bt. Md. Hashim MBBS (Mal), M. Anaes (Mal)

Dr Jeyaganesh Veerakumaran MBBS (Ind), M. Anaes (UKM)

Dr Carolyn Yim Chue Wai MBBS (IMU), M. Anaes (Mal)

Dr Chaw Sook Hui MD (USM), A Anaes (Mal)

Dr Mohd Fadhl Hadi bin Jamaluddin MBBS (Mal), M Anaes (Mal)

Dr Mohd Fitry bin Zainal Abidin MBBS (Rusia), M. Anaes (Mal)

Dr Wan Aizat binti Wan Zakaria MBBS (UK), M. Anaes (Mal)

Dr Lim Woon Lai MBBS(IMU), FRANZCA/FANZA(Aus)

Dr Beh Zhi Yuen MD (UPM), M. Anaes (Mal)

Dr Kevin Ng Wei Shan MD (UPM), M. Anaes (Mal)

Dr Ng Tyng Yan MBBS (Ind), M. Anaes (Mal)

Dr Ng Ching Choe MD (USM), M. Anaes (Mal)

Dr Sharil Rahayu binti Ruslan MBBS (Mal), M. Anaes (Mal)

Dr Cheong Chao Chia MD (UPM), M. Anaes (Mal)

Dr Lim Siu Min MBBS (IMU), M. Anaes (Mal)

Dr Tan Wei Keang MD (USM), M. Anaes (Mal)

### **Trainee Lecturers (SLAB):**

Dr Siti Nadzrah bin Yunus MBBS (Mal)

Dr Mohd Afiq Syahmi bin Ramli MBBS (CUCMS)

Dr Nabilah binti Abdul Ghani MBBS (MMMC)

Ili Syazana binti Jamal Azmi MBBS (Mal)

Mayura Hanis binti Ahmad Damanhuri MBChB (Manchester)

# ANATOMY

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Professor Dr Normadiah binti M Kassim** MBBS (Mal), MMedSc (Glas), PhD (Glas)

Tel: 03-7967 4735

Fax: 03-79558721/79674724

Email: [normadiah\\_mk@um.edu.my](mailto:normadiah_mk@um.edu.my) | [normadia@ummc.edu.my](mailto:normadia@ummc.edu.my)

## **Professors:**

Professor Dr Murali D. Kuppusamy Naidu BDS (Mal), MMedSc (Anat) (Mal), PhD (Cambridge)

Professor Dr Normadiah binti M Kassim MBBS (Mal), MMedSc (Glas), PhD (Glas)

## **Associate Professors:**

Associate Professor Dr Junedah binti Sanusi BSc, MSc (Kansas), Postgrad.Dip. Ed (UTM), PhD (Neurosci) (Lond)

Associate Professor Dr Rosie Pamela Shasikala David BSc (UPM), MMedSc (Mal), PhD (Mal)

## **Medical/Senior Lecturers:**

Dr Intan Suhana Zulkafli MBBS (UPM), PhD (UWA)

Dr Muhammad Alfakri Mat Noh MBBS (Mal), MMedSc (UKM)

Dr Noor Eliza Hashim MBBS (Aus), MMedSc (Mal), MMedSc (Mal)

Dr Rasheeda Mohd Zamin MBBS (UIA), PhD (UWA)

Dr Siti Rosmani Md Zin @ Zakaria MD (UPM), MMedSc (Mal)

Dr Snehlata Prashant Samberkar MBBS, DOMS (Mumbai) PGDPH (Fiji)

Dr Wong Kah Hui BSc. (Mal), MSc. (Mal), PhD (Mal)



# BIOMEDICAL IMAGING

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Associate Professor Dr Khairul Azmi Abd. Kadir** MBBS (Mal), MRad(UM)AM

Tel: 03-7949 2069

Fax: 03-7958 1973

Email: [khairulazmi@ummc.edu.my](mailto:khairulazmi@ummc.edu.my)

## **Professors:**

Professor Dr Anushya Vijayananthan MBBS (New Delhi), MRad (Mal), AM

Professor Dr Kartini Rahmat MBBS (Mal), MRad (Mal), FRCR (Lond), AM

Professor Dr Norlisah Mohd Ramli MBBS (Mal), FRCR (Lond), FAMB

Professor Dr Ng Kwan Hoong PhD, FIPM, MIPEM, DABMP, AM

Professor Dato' Dr Yang Faridah Abd. Aziz MBBS (Mal), MRad (Mal), FAMB

## **Associate Professor:**

Associate Professor Dr Faizatul Izza Rozalli BMBS (Nott), BMedSci (Nott), MRCP (UK), FRCR (UK), AM

Associate Professor Dr Jeannie Wong Hsiu Ding MMedPhys (Mal)

Associate Professor Dr Khairul Azmi Abd Kadir MBBS (Mal), MRad (Mal), AM

Associate Professor Dr Mohammad Nazri Md. Shah MBBS (Mal), MRad (Mal)

Associate Professor Datin Seri Dr Ouzreiah Nawawi MBBS (Mal), MRad (Mal), FRCR (Lond), AM

Associate Professor Dr Raja Rizal Azman Raja Aman MBBS (Lond), MRCP (UK), FRCR (Lond), MRad (Mal)

Associate Professor Dr Roziah Muridan MBBS (Mal), MRad (Mal), AM

## **Medical/Senior Lecturers:**

Dr Azlan bin Che Ahmad BBE (Mal), MMedPhys (Mal), PhD (Aberden)

Dr Caroline Judy Westerhout MBBS (Mal), MRad (UM), FRCR (Lond), AM

Dr Chan Wai Yee MD(Mal), FRCR(UK), MMed SIN(DR), MRad(Mal)

Dr Fadhli Mohamed Sani MBBS (Mal), MRad (UM)

Dr Farhana Fadzli MBBS (Mal), MBChB (Leicester), MRCP (UK)

Dr Nadia Fareeda Muhammad Gowdh MBBS (UM), MRad (Mal)

Dr Ng Wei Lin MBBS (UM), MRad (Mal)

Dr Norshazriman Sulaiman MBChB BAO (Ire), MRad (Mal)

Dr Nur Adura Yaakup, MBBS (Mal), MRad (Mal), AM

Eric Chung MBBS (Russia), MRad (Mal)

Dr Tan Li Kuo BEng (Monash), MEng (Monash), PhD (Mal)

Dr Shaleen Kaur a/p Kirat Singh MBBS(UM), MRad (Mal), FRCR(UK), FRANZCR (AUS), AM

## **Lecturer:**

Mr. Muhd Shahrul Nizam Ahmad Daman Huri BSc (Hons) (UKM), MMedPhys (Mal)

## **Trainee Lecturer (SLAB):**

Mohd Salahuddin bin Kamaruddin MBBS(UM)

# BIOMEDICAL SCIENCE

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Professor Dr Umah Rani Kuppusamy** BSc (Mal), PhD (S'pore)

Tel: 03-7967 6616

Fax: 03-7967 6600

Email: [umah@um.edu.my](mailto:umah@um.edu.my)

## **Professors:**

Professor Dr Chua Kek Heng BSc (Mal), MSc (Mal), PhD (Mal)

Professor Dr Umah Rani Kuppusamy BSc (Mal), PhD (S'pore)

## **Senior Lecturers:**

Dr Anwar Norazit BBiomedSc (Mal), MMedSc (Mal), PhD (Griffith)

Dr Azlina Ahmad Annuar BSc (UCL), PhD (Imperial)

Dr Bavani a/p Arumugam BSc BioChem (Mal), MSc (Mal), PhD (Mal)

Dr Chai Hwa Chia BBiomedSc (Mal), MMedSc (Mal), PhD (Monash Mal)

Dr Kamariah Ibrahim BBiomedSc (Mal), MMedSc (Mal), PhD (Mal)

Dr Kee Boon Pin BBiomedSc (Mal), PhD (Mal)

Dr Looi Mee Lee BSc (UKM), PhD (UKM)

Dr Nur'ain Salehen BBiomedSc (Bradford), MMedSc (Leicester), PhD (Leicester)(UM)

Dr Ong Kien Chai BSc (UKM), PhD (Mal)

Dr Puah Suat Moi BSc (UM), MMedSc (Mal) PhD (Mal)

Dr Rozaida @ Poh Yuen Ying BSc (Mal), MMedSc (Mal), PhD (Mal)

Dr Suzita Mohd Noor BBiomedSc (Mal), MMedSc (Mal), PhD (Deakin)

Dr Tan Soon Hao BSc (UTAR), PhD (Mal)





# MEDICAL MICROBIOLOGY

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Associate Professor Dr Chan Yoke Fun** BSc (Mal), PhD (Mal)

Tel: 03-7967 6661

Fax: 03-7967 6660

Email: [chanyf@ummc.edu.my](mailto:chanyf@ummc.edu.my) / [chanyf@um.edu.my](mailto:chanyf@um.edu.my)

## **Professors:**

Professor Dr Jamal I-Ching Sam BMBS (UK), MSc (Lond), FRCPath (UK), MRCP (UK)

Professor Dr Jamunarani Vadivelu BSc (Sur), PhD (Lond), DIC (Lond), MSc (Lond), FRCPath (UK)

Professor Dr Szaly Abu Bakar BSc (WIU), MSc (WIU), PhD (Texas)

Professor Dr Tay Sun Tee BSc (Mal), MMSc (Mal), PhD (Mal)

## **Associate Professors:**

Associate Professor Dr Chan Yoke Fun BSc (Mal), PhD (Mal)

Associate Professor Dr Chang Li Yen BSc (Mal), MSc (Mal), PhD (Mal)

Associate Professor Dr Rina Karunakaran MBBS (Mal), MPath (Mal), FRCPath (UK)

## **Medical/Senior Lecturers:**

Dr Anis Rageh Mohammed Al-Maliki BSc (Yemen), MSc (Yemen), PhD (Mal)

Dr Chandramathi Samudi Raju BSc (Mal), PhD (Mal)

Dr Cindy Teh Shuan Ju BSc (Mal), MSc (Mal), PhD (Mal)

Dr Kartini Abdul Jabar MBChB (UK), MPath (Mal)

Dr Kumutha Malar Vellasamy BSc (Mal), MSc (Mal), PhD (Mal)

Dr Maria Kahar Bador MBChB (Ire), MSc (Lond)

Dr Nadia Atiya MBChB (UK), MPath (Mal)

Dr Nurhafiza Zainal BSc (Bio)(Mal), Biotechnology (ICL), PhD (Mal)

Dr Nuryana Idris MBBS (Mal), MPath (Mal)

Dr Rukumani Devi Velayuthan MBBS (Mal), MPath (Mal)

Dr Tee Kok Keng BSc (Mal), MMedSc (Mal), PhD (Mal)

Dr Wong Won Fen BSc (Mal), MSc. (Tohoku Univ), PhD (Immunology) (Tohoku Univ)

Dr Tang Soo Nee MBBS (UNIMAS), MPath (Mal)

## **Trainee Lecturer (SLAB):**

Azwani Abdullah MBBS(Mal)

# MEDICINE

## DEPARTMENT/UNIT | ACADEMIC STAFF

### **Head of Department:**

Professor Dr Shahrul Bahyah bt Kamaruzzaman MBChB, MRCP (Lond), DGM (Dip. Of Geriatric Med) (Lond), PhD (London)

Tel: 03-7949 2429 / 03 79492555

Fax: 03-79556936

Email: [shahrulk@um.edu.my](mailto:shahrulk@um.edu.my)

### **Professors:**

Professor Dato' Dr Adeeba Kamarulzaman MBBS (Monash), FRACP

Professor Dato' Dr Wan Azman Wan Ahmad MBBS (Mal), FRCP (Glasgow), MRCP (UK), FAMM, FNHAM, FCAPSC, FAsCC, FAPSIC, FACC, FESC

Professor Dr Bee Ping Chong MD (Mal), MMed (Mal)

Professor Dr Sanjiv a/l Mahadeva MBBS (Newcastle Upon Tyne), MRCP (UK), CCST (UK), MD (Leeds)

Professor Dr Chee Kok Han MBBS (Mal), MMed (Mal)

Professor Dr Chin Ai-Vryn MBChB BAO (RCSI), LRCP & MRCP (UK), Dip.Hospital Management (NUI)

Dato' Dr Ikram Shah Ismail MBBS (Q'land), Ph.D (Wales), FRCP (Edin), FAMM, FACE

Professor Dr Gan Shiao Sze @ Gan Gin Gin MBBS (UNSW), MRCP (UK), FRCP (Edin)

Professor Dr Goh Khean Jin MBBS (Singapore), MRCP (UK), FRCP (Glasgow), FAMM (Glasgow), FAMM, FNHAM, FCAPSC, FAsCC, FAPSIC, FSCAI, FACC, FESC

Professor Dr Ida Normiha Helmi MBChB (Glas), MRCP (UK)

Professor Dr Imran bin Zainal Abidin MBBS (Mal), MMed (Mal)

Professor Dr Lim Kheng Seang MBBS (Mal), MRCP (UK)

Professor Dr Lim Shen-Yang MBBS (Melb), MD (Melb)(Neuroscience), FRACP

Professor Dr Nortina Shahrizaila B.Med Sc (Notth), MBBS (Notth), MRCP (UK), DM (Notth), CCT Neurology (UK)

Professor Dr Tan Kay Sin MBBS (Melb), Dip in Medicine (Hammersmith), MRCP (UK), FRCP

Professor Tan Maw Pin BMedSci (Notth), BMBS (Notth), MRCP (UK), MD (Newcastle, UK), CCT (UK)

Professor Dr Liam Chong Kin MBBS (Mal), MRCP (UK), FCCP (USA), FRCP (Lond), FAMM

Professor Dr Rosmawati Mohamed MBBS (Monash), MRCP (UK), MMed (Mal), MD (Birm)

Professor Dr Shahrul Bahyah bt Kamaruzzaman MBChB, MRCP (Lond), DGM (Dip. Of Geriatric Med) (Lond), PhD (London)

Professor Dr Shireene Ratna a/p Daniel Benjamin MBBS (Mal), MMed (UKM), MD (Melb)

Professor Dr Chan Wah Kheong MBBS (Mal), MRCP (UK), PhD (Mal)

### **Visiting Professor**

Professor Dato' Dr Goh Khean Lee MBBS (Mal), MRCP (UK), MD (Mal)

Professor Dato' Dr Tan Chong Tin MBBS (Mel), MRCP (UK), MD (Mal), FRCP (Edin)

Professor Dr Philip Poi Jun Hua MB ChB BAO (Ireland), LRCP&S (Ireland), MRCP (Ireland)

Professor Dr Chan Siew Pheng MBBS (Mal), MRCP (UK)

### **Associate Professors:**

Associate Professor Dr Ahmad Syadi bin Mahmood Zuhdi MBBS (Queen's), MMed (Mal)

Associate Professor Dr. Alexander Loch MBBS (Schiller University), MD (Schiller University), MRCP (UK)

Associate Professor Dr Ho Shiao Hooi MD (UKM), MMed (Mal)  
Associate Professor Dr Lim Soo Kun MBBS (Mal), MRCP (UK)  
Associate Professor Dr Loh Ee Chin MBChB (Ire), Postgraduate Dip. In Palliative Med (Wales), MRCP (Ire).  
Associate Professor Dr Ng Kok Peng MBChB, BAO (Ire), MMed (Mal), Socklingam MBBS (Manipal India), MMed (Mal)  
Associate Professor Dr Pang Yong Kek MD (USM), MRCP (UK)  
Associate Professor Dr Raja Iskandar Shah Raja Azwa MBChB (Dundee), MRCP (UK), Dip GUM DFRH, Dip HIV, CCT (UK)  
Associate Professor Raja Jasmin Begum binti Raja Mohamed MBBS (Manipal), MMed (Mal)  
Associate Professor Dr Sasheela Sri La Sri Ponnampalavanar MBBS (MAHE, Manipal), MMed (Mal)  
Associate Professor Dr Sharifah Faridah Syed Omar MBChB (Manchester), MMed (Mal)  
Associate Professor Dr Sargunan Sockalingam MBBS (Ind), MMedInt (Mal), Fellowship Rheumatology (Aus)  
Associate Professor Dr Suhaila bt Abdullah MBBS (Tasmania), MMed (Mal)  
Associate Professor Dr Tai Mei Ling Sharon MBBS (Melb), MMed (Mal), MRCP (UK)  
Associate Professor Dr Tan Seng Beng MBBS (Mal), MRCP (UK), Clinical Fellowship in Palliative Med. (Sing)

**Medical Lecturers:**

Dr Asma Sohail BSc (BioMed), (Aus), MBBS (Aus), MPHTM (Aus)  
Dr Bushra binti Megat Johari MBChB BAO (Ire), MSc Healthcare Infect Mgmt (Ire), MRCP (UK)  
Dr Chuah Kee Huat MBBS (IMU), MRCP (UK)  
Dr Chooi Kheng Chiew MBChB (Glas), MRCP (UK)  
Dr Edmund Chin Fui Min MBBS (Mal), MMed (Mal)  
Dr Fong Si Lei MBBS (Mal), MRCP (UK)  
Dr Fariz bin Yahya MBBS (Queen's), MMed (Mal)  
Dr Gan Chye Chung MBBS (AIMST), MRCP (UK)  
Dr Habibah binti Abd Halim BA (Hons), MBChir (Cambridge), MA (Cambridge), MRCP (UK)  
Dr Han Winn Hui MBChB (Edin), MRCP (Ire)  
Dr Helmi bin Sulaiman MBBS (Mal), MMed (Mal)  
Dr Jeyakantha a/l Ratnasingam MD (UKM), MMed (Mal)  
Dr Khor Hui Min MBBS (Newcastle Upon Tyne), MRCP (UK)  
Dr Kwan Zhenli MBBS (Mal), MRCP (UK)  
Dr Lam Chee Loong MBBS (Notth), MRCP (UK), CCT (Palliative Medicine)  
Dr Lee Yee Wan MD (UPM), MRCP (UK), MintMed (Mal)  
Dr Leong Chee Chiat MBBS (IMU), MLNT (Mal), MMed (Mal)  
Dr Lim Soo Jin MD (UPM), MRCP (UK)  
Dr Lim Lee Ling MBBS (Mal), MRCP (UK)  
Dr Loh Thian Chee MBChB (Otago), MRCP (UK)  
Dr Low Soon Chai MBBS (Mal), MRCP (UK)  
Dr Luqman bin Ibrahim MBBS (Mal), MMed (Mal)  
Dr Maisarah binti Jalalonmuhamali MBBS (Mal), MMed (Mal)  
Dr Mohamad Imran bin Idris BA (Uni of Cambridge), MBChir (Uni of Cambridge), MRCP (UK)  
Dr Muhammad Dzafir bin Ismail MBBS (Mal), MMed (Mal)  
Dr. Muhammad Imran bin Abdul Hafidz MBChir (Cambridge), MA (Cambridge), MRCP (UK)  
Dr. Mohd Firdaus bin Hadi MBBS (Mal), MMed (UKM)  
Dr Ng Kee Seong BSc UPM, MSc (UK), MD (UPM), PhD (UK)  
Dr Nor Ashikin bt Md Sari MBBS (Mal), MMed (Mal)  
Dr. Nur Adila binti Anuar MBBS (Mal), MMed (Mal)  
Dr Nor Izzati binti Saedon MBBS (Mal), MMed (Mal)  
Dr Ong Hang Cheng MBBS (IMU), MRCP (UK)  
Dr Pok Say Lee MBChB (Auck), MMed (Mal)  
Dr Reena a/p Rajasuriar BPharm (Hons) (Mal), MPharm (Mal), PhD (Aus)  
Dr Sharmila Sunita a/p Parasivam MD (UNIMAS), MRCP (UK)  
Dr Shasha Khairullah MBChB (Bristol), MMed (Mal)  
Dr Sheriza Izwa Zainuddin MBBS (Mal), MMed (Mal)  
Dr Poh Mau Ern MBBS (Mal), MRCP (UK)  
Dr Tan Ai Huey MD (UKM), MRCP (UK)

Dr Tan Cheng Yin MD (UKM), MRCP (UK), MMed (Mal), CCCT (Neuro)  
Dr Tan Guo Jeng MB BCH BAO (NUI), MRCP (UK)  
Dr Tan Leng Leng MBBS (Mal), MRCP (UK)  
Dr Tan Kit Mun BA MB BCH BaO (Dublin), MRCP (UK), CSCST (UK), RCPI (Dip. In Stroke & Cerebrovascular Med)  
Dr Tee Ying Chew MBBS (IMU), MIntMed (Mal)  
Dr Wan Ahmad Hafiz bin Wan Md. Adnan, MBBCh BAO (NUI), MRCPI  
Dr Wong Chew Ming MBBS (Mal), MRCP (UK)  
Dr Wong Chee Kuan MD (UKM), MRCP (UK)  
Dr Wong Pui Li MBChB (Aberdeen, UK), MRCP (UK)  
Dr Yong Shin Shen Dip Dermatology (Spore), MB BCH BAO (Ire), MRCP (Ire)



# MOLECULAR MEDICINE

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Professor Dr Sarni Mat Junit** BSc (Aberdeen), PhD (Nott)

Tel: 03-7967 4906

Fax: 03-7967 4957

Email: [sarni@um.edu.my](mailto:sarni@um.edu.my)

## **Professors:**

Professor Dr Onn Haji Hashim BSc (Mal), PhD (Glas)

Professor Datuk Dr Rohana Yusof BSc (Lanc), MSc (Mal), PhD (Leeds)

Professor Dr Sarni Mat Junit BSc (Aberdeen), PhD (Nott)

## **Associate Professors:**

Associate Professor Dr Azlina Abdul Aziz BSc (Mal), MSc (Glas), PhD (Glas)

Associate Professor Dr Fung Shin Yee BSc (Mal), MSc (Mal), PhD (Mal)

Associate Professor Dr Puteri Shafinaz Akmar Abdul Rahman BSc (Mal), MSc (Mal), PhD (Mal)

## **Senior Lecturers:**

Dr Chan Mun Chiang BSc (Bristol UK), PhD (Oxford UK)

Dr Johari Mohd Ali BSc (Mal), PhD (Cantab)

Dr Kong Kin Weng BSc (UPM), MSc (UPM), PhD (Mal)

Dr Muhammad Fazril Mohamad Razif BSc (Murdoch), PhD (UWA)

Dr Nurshamimi Nor Rashid BSc (Mal), MMedSc (Mal), PhD (Mal)

Dr Shatrah Othman B. Med.Sc (Nott), MSc (Mal), PhD (Mal)

Dr Tan Kae Yi BSc (UKM), PhD (Mal)

Dr Thamil Selvee Ramasamy BSc (UPM), PhD (Imperial)

Dr Jayakumar Rajarajewaran BSc (Ind), MSc (Ind), PhD (Ind)

Dr Jaime Jacqueline Jayapalan Dip Med Lab (USM), BSc (Hons) (Biomedical)(USM), MMSc (Mal), PhD (Mal)



# NURSING SCIENCE

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Dr Chong Mei Chan** SRN, SCM, BNSc (Mal), MSc (Com. Health)(Mal), PhD (Aust)

Tel: 03-7949 2806

Fax: 03-7949 4636

Email: [mcchong@ummc.edu.my](mailto:mcchong@ummc.edu.my) | [mcchong@um.edu.my](mailto:mcchong@um.edu.my)

## **Professor:**

Professor Dr Khatijah Abdullah @ Lim Geok Khim SRN, SCM, CCN (Neonatal), BSc (Hons) in Nsg (UK), MSc (Health Service Mgt.) (UK), Doctorate in Clinical Practice (Nsg) (UK)

## **Senior Lecturers:**

Dr Chong Mei Chan SRN, SCM, BNSc (Mal), MSc (Com. Health)(Mal), PhD (Aust)

Dr Chui Ping Lei SRN, BNSc (Teaching) (Hons), MMedSc (Nursing)(Mal), PhD (Mal)

Dr Lee Wan Ling SRN, CCN, BNSc (Teaching)(Hons), MNSc(Mal), PhD (Mal)

Dr Tang Li Yoong SRN, CCN, BNSc (Hons)(Mal), MN (Renal)(Aust.), PhD (Mal)

Dr Vimala Ramoo SRN, CCN, BNSc (Teaching)(Hons) (Mal), MEd (Planning & Admin.) (Mal), PhD (Mal)

## **Lecturers:**

Ms Norsiah Rahmat SRN, SCM, Dip Adv Nsg (Teaching), BNSc (Hon)(Mal), MMedSc (PH)(Mal)

Ms Kavitha Rasaiah SRN, CCN, BNSc (Hons) (Mal), Med (Curriculum Development) (Mal)

Ms Nor Aziyan binti Yahaya SRN, Oncology, Cert (Teaching), BNSc (Hons) (Mal), MNSc (Mal)

Ms Lai Lee Lee SRN, AdvDip (Perioperative), BNSc(Teaching) (Hons)(Mal), MMedSc (Anesth)(Mal)

Ms Nor Zehan Ahmad SRN, Cert (Teaching), BNSc (Mal), MNSc (Mal)

Ms Noor Hanita Zaini SRN, Cert (Teaching), BNsg (Mal), MNSc (Mal)



# OBSTETRICS AND GYNAECOLOGY

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

Professor Datuk Dr Siti Zawiah Omar MBBS (Mal), MMed O&G (Mal)

Tel: 03-7949 2059

Fax: 03-7955 1741

Email: [szawiah@ummc.edu.my](mailto:szawiah@ummc.edu.my)

## **Professors:**

Professor Dr Jamiyah Hassan, MBBS (Mal), MMed O&G (Mal)

Professor Dr Khong Su Yen MBChB (Bristol) MRCOG (UK), FRANZCOG (Aus)

Professor Dr Noor Azmi Mat Adenan, BMedSc (UK), MBChB (Glas), MObGyn (Mal)

Professor Datuk Dr Siti Zawiah Omar MBBS (Mal), MMed O&G (Mal)

Professor Dr Tan Peng Chiong, MBBS, MRCOG, CCST O&G (UK)

Professor Dr Woo Yin Ling, MBCh BAO, MRCOG, MA, PhD

## **Associate Professors:**

Associate Professor Dr Aizura Syafinaz Ahmad Adlan, MBBS (Mal), MMed O&G (Mal)

Associate Professor Dr Lim Boon Kiong, MBBS (Mal), MRCOG (Lond)

Associate Professor Dr Mukhri Hamdan, MBBS (Mal), MOG (Mal)

Associate Professor Dr N. Vallikkannu Valliyappan, MBBS (Madras), MMed O&G (Mal)

Associate Professor Dr Nuguelis Razali, MBBS (Mal), MMed O&G (Mal)

Associate Professor Dr Sofiah Sulaiman, LRCP & SI, MBCh, BAO(NUI), MMed O&G (Mal)

## **Medical/Senior Lecturers:**

Dr Jerilee Mariam Khong Bt Azhary, MBBS (Mal), MRCOG (UK), MMed O&G (Mal)

Dr Maherah Bt Kamarudin MBBS (Manipal), MOG (Mal)

Dr Neha Sethi a/p Naresh Sethi MBBS (MAHE), MOG (Mal)

Dr Nurezwana Elias, MD (UKM), MOG (Mal)

Dr Rahmah Saaid, MBBS (Mal), MMed O&G (Mal)

Dr Syeda Nureena bt Syed Jafer Hussain Zaidi, MBChB (Glasgow), MOG (Mal)

Dr Suseela Yelumalai, B.Biotech, M.MedSc, D.Phil MedSc





# OPHTHALMOLOGY

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Associate Professor Dr Nurliza binti Khaliddin** MBBS (Mal), MOphthal (Mal), FRCS (Edin), MMed (Ophthal)(Sing)

Tel: 03 79492060/79672434

Fax: 03-79494635

Email: [nurliza@ummc.edu.my](mailto:nurliza@ummc.edu.my)

## **Professor:**

Professor Dr Mimiwati Zahari MBBS (Mal), MOphthal (Mal), FRCS (Edin), MMed (Ophthal)(Sing)

## **Associate Professors:**

Associate Professor Dr Chaw May May @ Choo May May MBBS (Mal), MOphthal (Mal), FRCS (Edin), MMed (Ophthal) (Sing)

Associate Professor Dr Norlina Mohd Ramli MBBS (N.Castle), MRCOphth (Lond), MOphthal (Mal)

Associate Professor Dr Nurliza Khaliddin MBBS (Mal), MOphthal (Mal), FRCS (Edin), MMed (Ophthal)(Sing)

Associate Professor Dr Tajunisah Begam Mohamed Iqbal MBBS (Mal), MOphthal (Mal), FRCS (Glasg)

Associate Professor Dr Tengku Ain Fathlun Tengku Kamalden MBBS (Mal), MOphthal (Mal), MRCS (Edin)

Associate Professor Dr Amir bin Samsudin BSc (St. Andrews), MBChB (Manchester), MBBS (Manchester), Mophthal (Mal), PhD (UCL)

## **Medical Lecturers:**

Dr Azida Juana Wan Ab Kadir MBBS (Mal), MOphthal (Mal)

Dr. Fazliana Ismail MBBS (Mal), Mophthtal (Mal)

Dr Lott Pooi Wah MBBS (Mal), MOphthal (Mal)

Dr Nor Fadhilah Mohamed MBBS (Mal), Mophthtal (Mal)

Dr. Sujaya MBBS (India), MOphthal (Mal)



# ORTHOPAEDIC SURGERY

DEPARTMENT/UNIT | ACADEMIC STAFF

## Head of Department:

**Professor Dr Azlina Amir Abbas** MD (MUN) Canada, MS Orth (Mal), Fellowship in Arthroplasty (Mal), Fellowship in Hip Surgery (Korea), Dip.Adv.Med.Sci (IMU)(Mal), CMIA (NIOSH), AM (Mal)

Tel: 03-7949 2061

Fax: 03-7949 4642

Email: [azlinamir@ummc.edu.my](mailto:azlinamir@ummc.edu.my)

## Professor:

Professor Dato' Dr Tunku Sara binti Tunku Ahmad Yahaya MBBS (UK), FRCS (UK), FRCS (Glas), AM, DSDK

Professor Dr Saw Aik MBBS (Mal), FRCS (Edin), MMed (NUS)

Professor Dr Azhar Mahmood Merican MBBS (S'ton, U.K.), MS(Orth,UM Mal), Dip (London), Ph.D (Imperial Coll London), AM (Mal)

Professor Dr Vivek a/l Ajit Singh MBBS (Mal), MS Orth (Mal), FRCS (Edin), Fellowship Onco (Birmingham)

Professor Dr Kwan Mun Keong MBBS (Mal), MS Orth (Mal), AM (Mal)

Professor Dr Tunku Kamarul Zaman bin Tunku Zainol Abidin MD (UKM), Dip. Tis. Bank (NUS), MS Orth (Mal), AM (Mal), PhD (UK)

Professor Dr Azlina Amir Abbas MD (MUN) Canada, MS Orth (Mal), Fellowship in Arthroplasty (Mal), Fellowship in Hip Surgery (Korea), Dip.Adv.Med.Sci (IMU)(Mal), CMIA (NIOSH), AM (Mal)

## Associate Professor:

Associate Professor Dr Azura Mansor MBBS (Mal), Dip. Tis. Bank (NUS), CMIA (NIOSH), MS Orth (Mal), Fellowship Ortho Oncology (Rizzoli), AM (Mal)

Associate Professor Dr Balaji Raghavendran Hanumantharao BSc(India), MSc(India), PhD(India)

Associate Professor Dr Chris Chan Yin Wei M.D (Unimas), MS Orth (Mal)

Associate Professor Dr Chiu Chee Kidd MBBS (Mal), MS Orth (Mal), AM (Mal)

Associate Professor Dr Murali Malliga Raman BSc(India), MSc(India), PhD (India),

Associate Professor Dr Mohd Razif Bin Mohd Ali MBChB BAO (N.U.Irel), LRCP&S (Irel), FRCS (Edin), MSportsMed & Rehab (UM), MSc SportsMed (Dublin), CMIA (NIOSH)

## Medical/Senior Lecturers:

Dr Chung Weng Hong MD(USM), MOrthoSurg (Mal)

Dr Chong Pan Pan B.Sc (Hons) Microbiology, M.Sc.(Biochemistry), PhD (Tissue Engineering), Post-doc (Tissue Engineering)

Dr C. Sankara Kumar MBBS (MAHE, India), MS Orth (Mal), CMIA (NIOSH)

Dr Khoo Saw Sian MBChB (Univ of Dundee), MS Orth (Mal)

Dr Mohd Zubair Mohd MBChB (Univ. Almustansiriya), MS Orth (Mal), Fellowship in Sport Surgery (Mal.)

Dr Teo Seow Hui MBBS(IMU), MRCS (Irel), MS Orth (Mal), CMIA(NIOSH)

Dr. Nor Faissal Bin Yasin MBChB (Wales), MS Orth (Mal), Fellowship in Ortho Onco (UM)

Dr Jayaletchumi A/P Gunasagaran MBBS (Mal), MS Orth (Mal)

Dr Mohammed Ziyad AlBaker MBChB (Al-Mustansuriya Univ), MS Orth (Mal)

Dr Simmrat Singh MBChB (Irel), BAO, BMedSc, MRCS (Edin), MS Orth (Mal)

Dr Shams Amir Shamsul Bahar MBBS (IIUM), MS Orth (Mal)

Dr Tan Sik Loo B.Sc(Biological Sciences), M.Sc(Molecular Biology), PhD (Med Biotechnology and Stem Cell)

# OTORHINOLARYNGOLOGY

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

Associate Professor Dr Tengku Ahmad Shahrizal Tengku Omar MBChB (Sheffield), MS ORL (Mal)

Tel: 03-7949 2062

Fax: 03-7955 6963

Email: [tshahrizal@um.edu.my](mailto:tshahrizal@um.edu.my)

## **Professors:**

Professor Dato' Dr Prepageran Narayanan MBBS (Mal), USMLE (US), FRCS (Edin), ORL-HNS, FRCS (Glasg), MS (ORL) FAAOHNS (USA), Fellowship in Neurotology/Otology (Toronto, Canada) AM (Mal)

Professor Dr Raman Rajagopalan MBBS (Madras), DLO (Madras), MS (Madras)

## **Associate Professors:**

Associate Professor Dr Mohd Zulkiflee bin Abu Bakar MBBS (Mal), MS ORL (Mal)

Associate Professor Dr Tengku Ahmad Shahrizal Tengku Omar MBChB (Sheffield), MS ORL (Mal)

## **Medical Lecturers:**

Dr Chong Aun Wee MBBS (Mangalore), MS ORL (Mal)

Dr. Jeyanthi Kulasegarah LRCPsI, MB., BCH., BAO., MRCS., DOHNS., FRCS (Ireland)

Dr. Liew Yew Toong MBBS (UM), MS ORL (UM)

Dr. Mohd Adzreil bin. Bakri MBBChBAO (Ireland), MRCSEd (ENT), M ORL-HNS(UM)

Dr. Tengku Ezulia Tengku Nun Ahmad MBBS (Manipal), MS ORL-HNS (UKM)

Dr. Revadi Govindaraju MD(UPM), MSurg (Mal)

## **Trainee Lecturer (SLAB):**

Redzwan Shah John Mohd MBBS(Mal)



# PAEDIATRICS

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Associate Professor Dr Muhammad Yazid bin Jalaludin** MBBS (Mal), MPaed (Mal)

Tel: 03-7949 2425

Fax: 03-7949 4704

Email: [yazidjal@um.edu.my](mailto:yazidjal@um.edu.my) / [yazidj@ummc.edu.my](mailto:yazidj@ummc.edu.my)

## **Professors:**

Professor Dato' Dr Christopher Boey Chiong Meng MBBS (Lond), FAMM, DCH, MRCP (UK), MD, PhD, FRCPCH, FRCP (Glasg)

Professor Datin Dr Lucy Lum Chai See MBBS (Mal), MRCP (UK)

Professor Dr Hany Mohd Ariffin MBBS (Mal), MRCP (UK), MPaed (Mal), PhD (Mal)

Professor Dr Lee Way Seah MBBS (Mal), MRCP (UK), FRCP (Edin), FRCPCH, AM, MD (Mal)

Professor Dr Thong Meow Keong MBBS (Mal), M.Paed (Mal), FHGSA (Clinical Genetics), MD (Mal), FAMM

## **Associate Professors:**

Associate Professor Dr Azanna Ahmad Kamar MBBS (Mal), MRCPCH (UK)

Associate Professor Dr Muhammad Yazid bin Jalaludin MBBS (Mal), MPaed (Mal)

Associate Professor Dr Anna Marie a/p Nathan MBCh (Sing), MRCPCH (UK)

Associate Professor Dr Choo Yao Mun MBBS (Hons) (Monash), MRCPCH (UK)

Associate Professor Dr Fong Choong Yi B.Meds, BmBS (MOH), PGDiP, FRCPCH

Associate Professor Dr Mary Joseph Marret MBBS (Sing), MRCP (UK), MMed (Sing)

Associate Professor Dr Ng Ruey Terng MD (U Putra), MPaed (Mal)

Associate Professor Dr Lim Zek Sen MBBS (Mal), MRCP (UK)

Associate Professor Dr Gan Chin Seng MBBS (MAHE, India), MPaed (Mal)

## **Medical Lecturers:**

Dr Azriyanti bt Anuar Zaini MBBS (IMU), MPaed (Mal)

Dr Chong Lee Ai MBBS (AUS), MPaed (Mal), MRCPCH (UK)

Dr Chuah Soo Ling MD (UPM), MRCPH (UK)

Dr Eg Kah Peng MBBS (Mal), MPaed (Mal), MD (ID)

Dr Farah Khalid MBBS (IMU), MPaed (Mal)

Dr Foo Jen Chun MBBS (Mal)

Dr Karmila Abu Bakar MBBS, MPaed (Mal)

Dr Li Limin MBBS (IMU), MPaed (Mal)

Dr Lim Wei Kang MBCh (UK), MPaed (Mal)

Dr Norazah Zahari MBBS (Queensland), MPaed (Mal)

Dr Nurshadia Samingan MBChB, MPaed (Mal)

Dr Revathi a/p Rajagopal MD (USM), MPaed (Mal)

Dr Subhashini a/p Jayanath MBBS (UPM), MPaed (Mal)

Dr Tae Sok Kun MBBS (Mal), MRCPCH (UK)

Dr Vida Jawin MD (Ind), MPaed (Mal), MRCPCH (UK)

Dr Yap Tsio Yi MDCM (Canada), FAAP (USA)

## **Trainee Lecturer:**

Dr Khoo Wee Vien MBBS (UK)

Dr Nur Amanda binti Zainal Abidin BSc MedSc (Notth), MBCh Bao (Ire)

Dr Wan Hanaa Mardiah binti Wan Zainuddin MBBS (UK)

# PARASITOLOGY

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Professor** Dr Lau Yee Ling BSc (Mal), MSc (Mal), PhD (Mal)

Tel : 03- 7967 4746

Fax : 03- 7967 4754

Email : [lauyeeling@um.edu.my](mailto:lauyeeling@um.edu.my)

## **Professors:**

Professor Dr Fong Mun Yik BSc (Mal), MSc (Mal), PhD (Mal)

Professor Datin Dr Indra a/p Vythilingam BSc Zoology (Ind), MSc Zoology (NZ), PhD Zoology (Mal)

Professor Dr Lau Yee Ling BSc (Mal), MSc (Mal), PhD (Mal)

Professor Dr Suresh Kumar a/l Govind BSc (N.Carolina), DAP&E (Mal), MSc (Mal), PhD (Sing),  
CBiol, MBiol, FMSA

Professor Dr Yvonne Lim Ai Lian BSc (UKM), PhD (UKM)

## **Associate Professors:**

Associate Professor Dr Tan Tian Chye, BSc BioMed (Mal), MSc (Mal), PhD (Mal)

Associate Professor Dr Zurainee Mohamed Nor BSc (Mal), PhD (Strath)

Associate Professor Dr Wan Yusoff Wan Sulaiman BSc (Mal), MSc (Liv), PhD (Keele)

## **Medical/Senior Lecturers:**

Dr Amirah Amir MBBS (Mal)

Dr Chong Fei Wen Biomed Sc (Mal) PhD (Mal)

Dr Noraishah Mydin Hj. Abdul Aziz, BSc (UKM), MSc (UKM), PhD (Lond)

Dr Romano Ngui, MSc (Mal), PhD (Mal)



# PATHOLOGY

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Associate Professor Dr Nazarina Abdul Rahman** MBBS (Mal), MPath (Mal)

Tel: 03-7949 2064

Fax: 03-7955 6845

Email: [nazarina@ummc.edu.my](mailto:nazarina@ummc.edu.my)

## **Professors:**

Professor Dr Cheah Phaik Leng MBBS (Mal), MPath (Mal), FRCPath, MIAC, MD, FAMB, FASc (Mal)

Distinguished Professor Datuk Dr Looi Lai Meng MBBS (Sing), MPath (Mal), FRCPath, MIAC, FRCPA, MD (Mal), FASc (M'sia) FAMB

Professor Dr Wong Kum Thong MBBS (Mal), MPath (Mal), FRCPath

## **Associate Professors:**

Associate Professor Dr Hemalatha a/p Shanmugam MBChB (Sheffield), MPath (Mal)

Associate Professor Dr Mun Kein Seong @ Man Kein Seong MBBS (Mal), MPath (Mal)

Associate Professor Dr N. Veera Sekaran a/l V Nadarajah MBBS (Mal), MPath (Mal), DipRCPPath

Associate Professor Dr Nazarina Abdul Rahman MBBS (Mal), MPath (Mal)

Associate Professor Dr Pavai Sthaneshwar MBBS (Madras), MD

Associate Professor Dr T Malathi a/p Thevarajah MBBS (Madras), MPath (Mal)

## **Medical Lecturers:**

Dr Chew Man Fong MBBS (Melbourne), MPath (Mal)

Dr Chow Tak Kuan MBBCh, BAO (Dublin), MPath (Mal)

Dr Diana Ong Bee Lan MBBCh, BAO (Dublin), MPath (Mal)

Dr Farhi Ain binti Jamaluddin MBChB (Liverpool), MPath (Mal)

Dr Manimalar Selvi Naicker MBBS (Madras), MPath (Mal), M.MedStats (Aust)

Dr Patricia Ann Chandran MBBS (Mal), MPath (Mal)

Dr Prashant N Samberkar MBBS (Mumbai), MD (Mumbai)

Dr Teoh Kean Hooi MBBCh, BAO (Ire), MPath (Mal), MIAC

Dr Toh Yen Fa MD (USM), MPath (Mal)



# PHARMACOLOGY

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department :**

**Professor Dr Nor Azizan Abdullah** BSc (Aston), PhD (Lond)

Tel: 03-7967 4702

Fax: 03-79674791

Email: [azizan@ummc.edu.my](mailto:azizan@ummc.edu.my) | [norazizan@um.edu.my](mailto:norazizan@um.edu.my)

## **Professors:**

Professor Dr Mohd Rais bin Mustafa BSc (Wales), PhD (Wales)

Professor Dr Nor Azizan Abdullah BSc (Aston), PhD (Lond)

## **Associate Professors:**

Associate Professor Dr Dharmani Devi a/p Murugan B.Biomed Sc (Mal), PhD (Mal)

Associate Professor Dr Zamri Chik BSc (Mal), MPhil (Mal), PhD (Lond)

Associate Professor Dr Ivy Chung PhD, B.Eng, Ass. Eng

Associate Professor Dr Kiew Lik Voon B. BiomedSc (Hons)(Mal), MSc (Pharm)(USM), PhD (Mal)

Associate Prof. Dr. Mohammed Abdullah Mahdi Alshawsh BMed Lab (Yemen), MSc MedMicrob (Yemen)  
PhD Immunology (Mal)

Associate Professor Dr Wong Pooi Fong B. BiomedSc (Hons), DipTropMed (Nagasaki), MMedSc (Mal), PhD (Mal)

## **Medical/Senior Lecturers:**

Dr Ajantha Sinniah B.Biomed Sc, Msc (Mal, PhD (Lond)

Dr Elsa Haniffah Mejia Mohamed MD (USM)

Dr Nur Lisa binti Zaharan BMedSc (Hons) (Ire), MB BCh BAO (Ire), PhD (Ire)

Dr Shamsul Mohd Zain B.Biomed Sc (Mal, MSc (Mal), PhD (Lond)

Dr Tan Choo Hock MBBS (Mal), PhD (Mal)

Dr Zaridatul Aini binti Ibrahim BSc (Australia) PhD (Australia)



# PHYSIOLOGY

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Dr Hoe See Ziau** BSc (Mal), MDSc (Mal), PhD (Mal)

Tel: 03-7967 4907

Fax: 03-79674775

Email: [hoesz@ummc.edu.my](mailto:hoesz@ummc.edu.my) | [hoesz@um.edu.my](mailto:hoesz@um.edu.my)

## **Professors:**

Professor Dr Ruby Husain BSc (Sheff), PhD (Sheff)

Professor Dr Cheng Hwee Ming BSc (Liv), PhD (Liv)

## **Associate Professors:**

Associate Professor Dr Kim Kah Hwi BSc (UKM), MSc (USM), PhD (Gifu)

Associate Professor Dr Naguib Salleh MBBS (Mal), PhD (Lond)

## **Medical/Senior Lecturers:**

Dr. Felicita Fedelis a/p Jusof BMedSc (Mal), PhD (Syd)

Dr. Giribabu Nelli BSc (Ind) MSc (Ind), PhD (Ind)

Dr Hoe See Ziau BSc (Mal), MDSc (Mal), PhD (Mal)

Dr Hong Yet Hoi MBBS (Mal), MMedSc (Mal), PhD (VU)

Dr Kumar Seluakumaran MBBS (Mal), PhD (W. Aust)

Dr Kyaimon Myint Dip. M.Edu (Ygn), MBBS (Ygn), MMedSc (Ygn)

Dr. Lit Lei Cheng BSc (Mal), MMedSc (Mal), PhD (Lond)

Dr. Raja Elina Afzan bt Raja Ahmad MBChB (Otago), MMedSc (Mal), PhD (Liv)

Dr. Maziah Mat Rosly MBBS (Mal), PhD (Syd)



# PRIMARY CARE MEDICINE

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Associate Professor Dr Nik Sherina Haidi Hanafi** MBBS (Mal), MMed (Fam.Med), PhD (UK)

Tel: 03-7949 2306

Fax: 03-7957 7941

Email: [niksherina@um.edu.my](mailto:niksherina@um.edu.my) | [sherina@ummc.edu.my](mailto:sherina@ummc.edu.my)

## **Professors:**

Professor Dr Noor Zurani Mohd Haris Robson MBBS (Mal), MMed (Fam.Med), PhD (Addiction)

Professor Dr Christina Tan Phoay Lay MBBS (Lond), FRCGP (UK), DRCOG (UK), AM

Professor Dr Khoo Ee Ming MBBS (Lond), MRCGP (UK), FAMM, FAFP (Hon)

Professor Dr Ng Chirk Jenn MBBS (Sing), MMed (Sing)

Professor Dr Sajaratulnisah Othman MBBS (Mal), MMed (Fam.Med), PhD (Monash)

## **Associate Professors:**

Associate Professor Dr Adina Abdullah BMed Sci (Hons), BMBS (Notts), MMed (Fam Med)

Associate Professor Dr Lai Siew Mei Pauline B.Pharm (Melb), PhD (Mal)

Associate Professor Dr Liew Su May MBBS (Mal), MMed (Fam Med)

Associate Professor Dr Nik Sherina Haidi Hanafi MBBS (Mal), MMed (Fam.Med), PhD (UK)

## **Medical/Senior Lecturers:**

Dr Ahmad Ihsan Abu Bakar MBBS (Mal), MMed (Fam.Med)

Dr Fadzilah Hanum binti Mohd Mydin MBBS (Mal), MMed (Fam.Med)

Dr Haireen binti Abdul Hadi MBBCh (NUI), BAO (NUI), MMed (Fam.Med)

Dr Julia Suhaimi MBBS (Mal), MMed (Fam.Med)

Dr Lee Yew Kong MD (UKM)

Dr Mohazmi Mohamed MBBS (Mal), MMed (Fam Med)

Dr Norita Hussein MBBS (Mal), MMed (Fam.Med)

Dr Nur Amani @ Natasha Ahmad Tajuddin MBBS (Mal), Mmed (Fam.Med)

Dr Nurdiana binti Abdullah MBBS (Mal), MMed (Fam.Med)

Dr Siti Nurkamilla Ramdzan MBBS (Mal), Mmed (Fam.Med)

Dr Tun Firzara binti Abdul Malik MBBS (Aus), MMed (Fam.Med)



# PSYCHOLOGICAL MEDICINE

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Professor Dr Ahmad Hatim Sulaiman** MBBS (Mal), MPM (Mal), PhD (Mal)

Tel: 03-7949 2068

Fax: 03-79556477

Email: [hatim@um.edu.my](mailto:hatim@um.edu.my)

## **Professors:**

Professor Dr Ahmad Hatim Sulaiman MBBS (Mal), MPM (Mal), PhD (Mal)

Professor Dr Nor Zuraida Zainal MBBCh BAO (Ire), MPM (Mal), MPhil (Cambs)

## **Associate Professors:**

Associate Professor Dr Aili Hanim Hashim MBBS (Mal), MPM (Mal)

Associate Professor Dr Amer Siddiq bin Amer Nordin MBChB (Otago), MPM (Mal)

Associate Professor Dr Jesjeet Singh Gill MBBS (Mal), MPM (Mal)

Associate Professor Dr Koh Ong Hui MBBS (Manipal, India), MPM (Mal)

Associate Professor Dr Ng Chong Guan MBBS (Mal), MPM (Mal), MSc (Utrecht University, the Netherlands), PhD (Utrecht University, the Netherlands)

Associate Professor Dr Muhammad Muhsin bin Ahmad Zahari MBBCh BAO (Ire), MPM (Mal)

Associate Professor Dr Rusdi bin Abd Rashid MBBS (Mal) MPM (Mal)

Associate Professor Datin Dr Sharmilla Kanagasundram MBBS (Manipal, India), MPM (Mal)

Associate Professor Dr Yee Hway Ann @ Anne Yee MBBS (Mal), MPM (Mal)

## **Medical Lecturers:**

Dr Aida Sharinaz binti Ahmad Adlan MBBS (Mal)

Dr Amarpreet Kaur MBBCh (Wales, UK), MRCPsych (UK), Dip Med Sci in Clinical Psychiatry (UK), Dip in Clinical Hypnosis (D.Hyp)

Dr Manveen Kaur a/p Harbajan Singh MBBS (Mal), MPM (Mal)

Dr Zuraida Ahmad Sabki MD (Mal), MPM (Mal)

Dr Fatin Liyana Azhar MD (UPM), MPM (Mal)

## **Trainee Lecturer:**

Dr Julian Wong Joon Ip MBBS (Monash, Aus)



# REHABILITATION MEDICINE

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Exercising the Functions of Head of Department:**

**Associate Professor Dr Julia Patrick Engkasan** MBBS (Mal), MRehabMed (Mal)

Tel: 03-7949 2972/3120

Fax: 03-7968 4766

Email: [lydia@ummc.edu.my](mailto:lydia@ummc.edu.my)

## **Professor:**

Professor Dr Lydia Abdul Latif MBBS (Mal), MRehabMed (Mal), CIMA (Mal) Fellow in Neuromodulation (Harvard), Grad Cert Med Acu (Harvard), Dip in Clin Research (Harvard)

## **Associate Professors:**

Associate Professor Dr Julia Patrick Engkasan MBBS (Mal), MRehabMed (Mal)

Associate Professor Dr Loh Siew Yim BSc in Applied Rehab (UK), MSc in Medical Edu (UK), MCounselling (Mal), PhD (Aust)

Associate Professor Dr Mazlina Mazlan MBBS (Mal), MRehabMed (Mal)

Associate Professor Dr Nazirah Hasnan MBBS (Mal), MRehabMed (Mal), CIME (USA)

## **Medical/Senior Lecturers:**

Dr Aishah Ahmad Fauzi MBBS (Mal), MRehabMed (Mal)

Dr Anwar Suhaimi MBBS (Mal), MRehabMed (Mal)

Dr Chung Tze Yang MBBS (Mal), MRehabMed (Mal)

Dr Norhamizan Hamzah MBCUB (UK) MRehabMed (Mal)

Dr Chan Soo Chin MBBS (IMU), MRehabMed (Mal)

## **Trainee Lecturer**

Dr Sakinah binti Sabirin MBBS (Ire)



## SOCIAL & PREVENTIVE MEDICINE

DEPARTMENT/UNIT | ACADEMIC STAFF

### **Head of Department:**

**Associate Professor Dr Sanjay Rampal** MBBS (Bangalore), MPH (Harvard) PhD (Johns Hopkins), FAMM, CPH (US NBPHE)

Tel: 03-7967 4756

Fax: 03-7967 4975

Email: [srampal@ummc.edu.my](mailto:srampal@ummc.edu.my)

### **Professors:**

Professor Dr Awang Bulgiba Awang Mahmud MBBS (Mal), MPH (Mal), MAppStats (Mal), PhD (East Anglia) FFPH, FPHMM, FAMM, FASc

Professor Dr Maznah Dahlui MD (Mal), MPH (Mal), PhD (Mal), FPH (Royal College of Physicians, UK)

Professor Dr Noran Naqiah Hairi MBBS (Mal), MPH (Mal), MPH (Epid) (Mal), PhD (Sydney) FPH (Royal College of Physicians, UK)

Professor Dr Sanjay Rampal MBBS (Bangalore), MPH (Harvard) PhD (Johns Hopkins), AMM, CPH (US NBPHE)

Professor Dr Victor Hoe Chee Wai Abdullah MBBS (Mangalore), MPH (Mal), MPH (OH) (Mal), Meng (Safety, Health & Env) (Mal), PhD (Monash)

Professor Dr Wong Li Ping BSc (Hons)(UPM), MMedSc (UKM), PhD (Mal)

Professor Dr Choo Wan Yuen BSc (Hons)(UPM), MMedScPH (Mal), PhD (Aus)

Professor Dr Moy Foong Ming BSc (Hons) Dietetics (UKM), MSc (Nutrition) (UKM), MMedScPH (Mal), PhD (Mal)

### **Associate Professors:**

Associate Professor Dr Farizah bt Mohd Hairi MBBS (Mal), MSc (Wales), MPH (Mal), MPH (Health Services Mgt) (Mal), DSc (Public Health) (NL)

Associate Professor Dr Hazreen bin Abdul Majid BSc (Hons), Dietetics (UKM), MSc (Nutrition&Dietetics), Deakin (Melb), PhD (Lond)

Associate Professor Dr Mas Ayu Said MBBS (Mal), MPH (Mal), MPH (Epid) (Mal), PhD (Mal)

Associate Professor Dr Nasrin Agha Mohammadi BSc. (Environmental Health Engineering) (Tehran), MSc (Civil Engineering) (USM), PhD (Mal)

Associate Professor Dr Ng Chiu Wan MBBS (Spore), MPH (Mal), MPH (Health Services Mgt.) (Mal), PhD (Mal)

Associate Professor Dr Nirmala Bhoo Pathy MBBS (Mal), MPH (Hons)(Mal), MSc Clinical Epid (Hons) (Utrecht Univ), PhD (Utrecht Univ)

### **Medical/Senior Lecturers:**

Dr Abqariyah binti Yahya BSc (Hons) Stast. (UKM), MSc Stast. (UKM), PhD (MedSc) (Karolinska)

Dr Lim Sin How BSc. Biochemistry (NUS), MSc. Health Care Administration (Connecticut), PhD (Pennsylvania)

Dr Marzuki bin Isahak MBBS (Mal), MPH (Mal), DrPH (Mal)

Dr Maslinor Ismail MD (UKM), MPH (Mal), MPH (Family Health)(Mal)

Dr Nik Daliana binti Nik Farid MBBS (Aust), MPH (Mal), DrPH (Mal)

Dr Rafdzah binti Ahmad Zaki MBChB (Liverpool), MPH (Mal), DrPH (Mal)

Dr Tharani Loganathan MD (USM), MPH (Mal), DrPH (Mal)

# SURGERY

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Department:**

**Professor Dr April Camilla Roslani** MBCh (Wales), MRCS (Edin), MS (Mal)

Tel: 03-7949 2441 / 2070

Fax: 03-7958 6360

Email: [april@ummc.edu.my](mailto:april@ummc.edu.my) | [aprilroslani@um.edu.my](mailto:aprilroslani@um.edu.my)

## **General Surgery:**

Professor Dr April Camilla Roslani MBCh (Wales), MRCS (Edin), MS (Mal)

Professor Dr Nur Aishah binti Mohd Taib MBBS (Mal), MRCS (Edin), MS (Mal)

Associate Professor Dr Ng Khoon Leong MBBS, FRCS (Edin), FRCS (Glasg)

Associate Professor Dr Yoong Boon Koon BSc (Med), MBBS (UNSW), MRCSEd, MS (Mal)

Associate Professor Dr Khong Tak Loon MBBS (Edin), MSc Surg Sc (Lond), MD (Lond), FRCS (UK)

Associate Professor Dr Koh Peng Soon MBBS (IMCKL), MRCC (UK), MS (Mal), PhD (HK)

Associate Professor Dr See Mee Hong B.Med (UPM), MD (UPM), MS (Mal)

Dr Ahmad Rafizi Hariz bin Ramli MBBS (Mal), MS (Mal)

Dr Suniza binti Jamaris MBBS (Mal), MS (Mal)

Dr Nora binti Abdul Aziz MS BCHBAD (NUIUCD), MS (Mal)

Dr Koong Jun Kit MBBS (IMU) MRCS (Ire) MS (Mal)

Dr Poh Keat Seong BSc (MedSci) (Hons) MD (UPM), MRCSEd(UK) MS(UKM)

Dr Hoh Siew Yip MBBS (Mal) MS (Mal)

Dr Chong Shun Siang MBBS (Mal) MS (Mal)

Dr Mohammad Reza bin Abdul Aziz MBBS (Ireland), MRCS (Ire)

Dr Wong Lai Fen MB BCH BAO (Ire)

Dr Tania Islam MBBS (Chittagong), PhD (Jap)

Dr Lim Hiong Chin MBBS (IMU), MSurg (Mal)

Dr Teh Mei Sze MD(USM), MSurg(Mal), MRCS (Edin)

Dr Teoh Li Ying MBBS (Mal), MSurg (Mal)

Dr Ang Chin Wee MBChB (UK), MD (UK), FRCS (Edin)

## **Trainee Lecturer:**

Dr Khoo Kah Seng MBBS (Mal)

## **Cardiothoracic Surgery:**

Professor Dr. Raja Amin bin Raja Mokhtar MBBS (Mal), MS (Mal), FRCS (Edin)

Professor Dr Shahrul Amry bin Hashim MBChB (UK), MRCS (Edin), FRACS (Edin)

Dr Sivakumar a/l Krishanasamy MBBS (Mal), MRCS (Edin), MS (Mal) – study leave

Dr Cheng Keng Peng (Kenny) MBBS (Mal), MS (Mal)

## **Paediatric Surgery:**

Professor C R Thambidorai MBBS, MS (Gen Surg), FRCS (Edin), FRACS (Paed Surg), MNAMS (Gen Surg)

Professor Dr Yik Yee Ian MBBS (Mal), MS (Mal), MRCSEd, PhD (Melb)

Dr Anand a/l Sanmugam MD (UPM), MSurg (Mal)

Dr Srihari Singaravel MBBS (Chennai India), MS (Pediatric Surgery) (Mal)

Dr Ganesh a/l P.Vythingam (MAHE), MS (Pediatric Surgery) (Mal), MRCS (Ireland)

**Urology:**

Professor Dr Azad Hassan bin Abdul Razack MBBS (Mal), FRCS (Edin)  
Professor Dr Ong Teng Aik MBBS (Mal), MS (Mal), FRCS (UK), FEBU (European), FRCSI (Ireland)  
Associate Professor Dr Shanggar a/l Kuppusamy MBBS (MAHE), MS (Mal)  
Dr Siti Nur Masyithah binti Ma'arof MBBS (Mal), Ms (Mal), Master of Clinical (Equal to PhD)  
Dr Sivaprakasam a/l Sivalingam MS (Mal), MRCS (Edin)  
Dr Ahmad Nazran bin Fadzil MBChB (Leic), MS (Mal)  
Dr Aung Kyaw Phyoo MBBS (Mandalay, MRCS (Ire), FRCS (Eng)  
Dr Chai Chu Ann MBBS (Russia), MSurg (Mal)

**Plastic Surgery:**

Associate Professor Dr Alizan bin Abdul Khalil MBB (Mal) MS (Mal), PhD (Plastic Surgery)(Aust)  
Dr Kong Chee Kwan MD (UNIMAS), MS (Mal)  
Dr Muhammad Ridwan bin Mirza Asfian MBBS (Mal), MS (Mal)

**Neurosurgery:**

Professor Dr Vickneswaran a/l Mathaneswaran MBBS (Hons)(Mal), FRCS (Edin), Japanese Council for Medical Training (Japan), FRCS(Edin)(Neurosurgery)  
Professor Dr Dharmendra a/l Ganesan MBBS (Mal), MS (Mal) FRCS (Edin), FRCS (Ire)  
Associate Professor Dato' Dr Hari Chandran a/l Thambinayagam MBBS (Chennai, India), FRCS (Edin)  
Associate Professor Dr Kamal Azrin bin Abdullah @ Kalai Arasu MBBS (Mal), MS (Mal), Dphil (Oxon)  
Associate Professor Dr N V V E Vairavan MD (UKM), MS (UKM), FRCS Edin (Neuro Surg)  
Dr Nor Faizal bin Ahmad Bahuri MBBS (Mal), MS (Mal), Dphil (Oxon)  
Dr Ravindran A/L Karuppiyah MBBS (Thanjavur), MRCS(Edin), MS (Mal)- study leave  
Dr Aditya Tri Hernowo M.D, PhD

**Senior Lecturers**

Dr Lim Jasmine BMedSc(Hons)(UPM), PhD (Oxford)  
Dr Retnagowri a/p Rajandram BScBiochem(Hons) (Aus), PhD(Aus)



# CLINICAL ONCOLOGY

DEPARTMENT/UNIT | ACADEMIC STAFF

**Head of Unit:**

**Dr Adlinda binti Alip** MD(UK), FRCR (UK)

Tel: 03-7949 2183

Fax: 03-7956 3072

Email: [adlinda@um.edu.my](mailto:adlinda@um.edu.my) | [adlinda@ummc.edu.my](mailto:adlinda@ummc.edu.my)

**Professor:**

Professor Datin Dr Anita Zarina binti Bustam @ Mainudin MBCh (UK), FRCR (UK)

**Associate Professors:**

Associate Professor Dr Ho Gwo Fuang MBChB, BSc, MRCP (UK), FRCR (UK)

Associate Professor Dr Marniza binti Saad MBCh (UK), MRCP Part I (UK), FRCR (UK)

Associate Professor Dr Rozita binti Abdul Malik MBBS (Mal), Mco (Mal)

Associate Professor Dr Wan Zamaniah binti Wan Ishak @ Wan Mohammad MBBS (Mal), Mco (Mal)

Associate Professor Dr Ung Ngie Min BEng (Mal), MSc (Mal), PhD (Aust)

**Medical/Senior Lecturers:**

Dr Adlinda binti Alip MD(UK), FRCR (UK)

Dr Jasmin Loh Pei Yui MBChB, FRANZCR (NZ)

Dr Jong Wei Loong BSc Health (USM), MMed Physics (Mal), PhD (Mal)

Dr Nurfadhlina Abdul Satar MBBS (Nottingham, UK), FRCR (Roy Coll Lond) MSc (Oncology) (UK)



# MEDICAL EDUCATION & RESEARCH DEVELOPMENT UNIT (MERDU)

DEPARTMENT/UNIT | ACADEMIC STAFF

**Head of Unit:**

**Professor Dr Jamunarani A/P S Vadivelu** PhD (Lond), MSc (UK), BSc Hons. (UK)

Tel: 03-7967 5738

Fax: 03-7967 5769

Email: [jamuna@ummc.edu.my](mailto:jamuna@ummc.edu.my)

**Professor:**

Professor Dr Jamunarani A/P S Vadivelu PhD (Lond), MSc (UK), BSc Hons. (UK)

**Associate Professor:**

Associate Professor Dr Vinod Pallath PhD (India), MSc (India), BSc (India)

**Senior Lecturers:**

Dr Sim Joong Hiong PhD (UM), MEd (UM), LLB Hons. (UK), BScEd (Hons) (USM)

Dr Foong Chan Choong PhD (Mal), BSc.Ed (Hons) (Mal)

Dr Hong Wei-Han PhD (UM), MEd (UM), BScEd (Hons) (UTM)



# SPORTS MEDICINE

DEPARTMENT/UNIT | ACADEMIC STAFF

**Head of Unit:**

**Associate Professor Dr Mohd. Nahar Azmi bin Mohamed** MD (Universitas Padjadjaran Indonesia), MSpMed (Mal)

Tel: 03-7967 4968

Fax: 03-79677511

Email: [nahar@ummc.edu.my](mailto:nahar@ummc.edu.my)

**Associate Professors:**

Associate Professor Dr Abdul Halim bin Mokhtar MD (UKM), MSpMed (Mal)

Associate Professor Dr Mohd. Nahar Azmi bin Mohamed MD (Universitas Padjadjaran Indonesia), MSpMed (Mal)

Associate Professor Dr Mohamad Shariff bin A Hamid MBBS (Adel), MSpMed (Mal)

**Medical Lecturers:**

Dr Goh Siew Li MD (USM), MSpMed (Mal)

Dr Samihah binti Abdul Karim MD (UPM), MSpMed (Mal)

Dr Zulkarnain bin Jaafar MD (USM), MSpMed (Mal)

Dr Choong Wai Kwong MSpMed (Mal), MD (UPM)

**Trainee Lecturer (SLAI):**

Dr Ahmad Hazwan bin Ahmad Shushami MBBS (Mal)

Dr Muhammad Kashani bin Mohd Kamil MD (Universitas Sumatera Utara Indonesia)



# TRAUMA & EMERGENCY

DEPARTMENT/UNIT | ACADEMIC STAFF

## **Head of Unit:**

Associate Professor Dr Rishya a/l Manikam MBBS (Mal), Mmed (Emergency Medicine) (Mal)

Tel: 03-7949 4198

Fax: 03- 7949 4179

Email: [rishya@ummc.edu.my](mailto:rishya@ummc.edu.my) | [rishya@um.edu.my](mailto:rishya@um.edu.my)

## **Professor:**

Professor Dr Rashidi Ahmad MBBS (Mal), Mmed (Emergency Medicine) (Mal)

## **Associate Professors:**

Associate Professor Dr Mohd Idzwan bin Zakaria MBBS (Mal), Mmed (Emergency Medicine) (Mal)

Associate Professor Dr Rishya a/l Manikam MBBS (Mal), Mmed (Emergency Medicine) (Mal)

## **Medical Lecturers:**

Dr Abdul Muhaimin Noor Azhar, MBBS (Wales, UK), MMed Emerg Med (UM)

Dr Aidawati Bustam @ Mainudin MA, MB BChir (Cambridge), MRCP (UK), MMed Emerg Med (UM)

Dr Ahmad Zulkarnain Ahmed Zahedi, MBBS (Mal), MMed Emerg Med (UM)

Dr Khadijah Poh Yuen Yoong, MBBS (Mal), MMed Emerg Med (UM)

Dr Mohd Zahir Amin Mohd Nazri MBBS (Mal), MMed Emerg Med (UM)

## **Trainee Lecturers:**

Dr Mohd Hafyuzuddin bin Md Yusuf MB BCh BAO (Ireland)

Dr Mohammad Aizuddin Azizah Ariffin MBBS (Otago, New Zealand)

Dr Siti Nur Aliyah binti Zambri MBBS (Ireland)

Dr Anhar Kamarudin MBBS (Mal)



## HISTORY OF THE FACULTY OF MEDICINE

---



The University of Malaya was established on 8 October 1949 as a national institution to serve the higher educational needs of the Federation of Malaya and of Singapore. In 1960, the Government of the Federation of Malaya indicated that the Kuala Lumpur Division of the University of Malaya should become the national University in the Federation with effect from the beginning session 1962/63. Likewise, the Singapore Division should become the national University of Singapore. Steps to achieve the establishment of these two separate universities were finalized during the year 1961 and the University of Malaya was established on 1<sup>st</sup> January 1962. The student population at that time was about 330. Since then, the University has grown and developed rapidly. Today, the student population has grown to almost 30,000.

### **Establishment of the Faculty of Medicine at the University of Malaya**

Up to the 1950's, the Faculty of Medicine, University of Singapore, which was known previously as King Edward VII College of Medicine had been the only medical school in Malaya and Singapore. The output of doctors at that time was small: 60 per year. Many Malaysians had to go overseas to seek undergraduate medical education. It was not until 1960 that a determined effort was made to double the intake of students to 120 per year in Singapore. In 1960, a board of studies of the University of Malaya was appointed to study the feasibility of establishing a medical school with its own teaching hospital. The board recommended the early establishment of both.

To this end, the Government agreed and the Ministries of Education and of Health provided the necessary capital funds. In 1962, a Dean for the Faculty of Medicine was appointed.



FIRST BATCH- 1969

The first batch of medical students was admitted to the Faculty in 1964. A year earlier, these students, 40 of them, were placed in the Faculty of Science as pre-medical students. Construction of the faculty building began in July 1963, was completed in 10 months, so that the pioneer students were able to begin their course in May 1964. The building programme continued and the second phase was ready in time for Year II teaching the following May. Throughout this period, planning, building, ordering and receiving of equipment, recruitment of staff, organization of the Faculty, and discussions on the curriculum continued unrelentingly. Phase I of the University Malaya Medical Centre consisting of the main block together with podium or “technical box” (operating theatres, radio-diagnostic, accident and emergency, polyclinic, pharmacy, central sterile supply, cafeteria, administration and medical records) was completed in December 1966, and the first wards were opened as on March 1967. Phase II of the Hospital consisting of Paediatric, Maternity and Rehabilitation Units was completed in December 1967, and became functional in March 1968. The total construction period for the Medical Centre consisting of the faculty departments, hospital (740 beds), Hostel for Clinical Students, Nurses Quarters with Nursing School and Central Animal House was three and a half years. Over the past three decades, the medical centre has expanded tremendously, and today it has 900 beds (the number will be increased to 1200 beds after renovation).

### **Philosophy of the Faculty of Medicine**

The philosophy of the Faculty is to mould students to be competent, highly-skilled and knowledgeable health professionals, who can work with others as a team, who are caring and concerned about their patients and society, and who can emerge as leaders in their community.



# FACULTY FACILITIES

41

- |    |  |
|----|--|
| 1  | TAN SRI DANARAJ MEDICAL LIBRARY                      |
| 2  | IMAGING LABORATORY                                   |
| 3  | BIOMEDICAL IMAGING DEPARTMENT                        |
| 4  | MULTIDISCIPLINARY LABORATORIES                       |
| 5  | CLINICAL SKILLS LABORATORY                           |
| 6  | COMPUTER LABORATORIES                                |
| 7  | MEDICAL ILLUSTRATION AND MULTIMEDIA DEVELOPMENT UNIT |
| 8  | ANATOMY RESOURCE                                     |
| 9  | CENTRAL PATHOLOGY MUSEUM                             |
| 10 | UNIVERSITY BOOK STORE (MEDICAL)                      |



## **TAN SRI DANARAJ MEDICAL LIBRARY**



### **SERVICES**

#### **Academic Services Tan Sri Danaraj Medical Library**

The Medical Library on the 3rd floor of the faculty contains around 100,000 volumes and subscribes to around 2,000 current journals. An extensive collection of reference works printed indexing and abstracting services are maintained. It permits access to a number of databases both on-line and on compact disk in the various fields of medicine and allied health care. In addition, the library offers cassette-tape, tape-slide, video-

viewing and discussion room facilities, inter-library loan, photocopying and document binding services. Branch libraries are at the Klang and Kuala Langat District Complexes. These libraries aim to provide good quality and friendly service in a pleasant environment. Care of all library material is essential to maintaining this standard. Instructions regarding the use of facilities should be obtained from library staff.

The Main UM Library situated in the main campus contains more than 1 million volumes, a microfilm processing unit and photostating facilities.

#### **Library times:**

Mon-Fri: 0800 – 2230 hr

Sat & Sun: 0800 – 1530 hr

## **IMAGING LABORATORY**

### **Imaging Laboratory**



The objective of the Medical Imaging Programme is to expose the students to every phase of medical imaging and encourage a disciplined approach to problem solving. The four-year program is structured to introduce each medical imaging subdivision. Basic understanding of individual techniques is emphasized, followed by hands-on experience aimed at challenging the student to accept increasingly greater responsibilities as the training program progresses in the imaging laboratory (College of Radiography) and Biomedical Imaging Department.

In addition to conventional radiography and nuclear medicine, training will be available in computer sciences, related imaging technologies, angiography, and interventional radiography. Equipment, facilities, and personnel are available to develop expertise in all areas of medical imaging. The Biomedical Imaging Department have:



#### **General Radiographic Machines**

Room 1 to Room 6 = DRX Evolution Carestream



#### **Mobile X-ray**

6 sets of AMX 4 Plus

3 sets of GE AMX 4 wifi digital



**3 Reporting Rooms**



**PACS Control Room**



**3 MRI scanners:**

1. GE 3 T SIGNA with HIFU
2. GE 1.5 T SIGNA
3. Siemens MAGNETOM C 0.35 T Open MRI



**Three Computed Tomography Scanners**

1. Siemens SOMATOM Definition 128 slices
2. Siemens SOMATOM Definition Dual Source
3. Siemens SOMATOM Sensation 16 slices



**2 Angiography Sets**

Philips CX50 Integrated Ultrasound Biplane  
Siemens Syngo Multimodality Single Plane

**1 Fluographic Set**

**2 Cardioangiography Sets**

Philips FD10 Biplane



**Ultrasound**

3 sets of Philips IU22 High end multifunction  
1 set of Philips HDI3000

Philips FD20 Single Plane



#### **Nuclear Medicine**

- 1 Philips 3 head gamma camera
- 1 Philips gamma camera
- 1 LEXXOS Digital 2D Densitometer

In support of these devices, clinical facilities have been established and are available to enrich the student's experience.

Each individual section in general radiography, nuclear medicine, and the Biomedical Imaging Department is supervised by departmental personnel, including clinical radiologists, medical physicists, and radiographers. All assume a direct role in student education.



#### **Mammography**

- Siemens Mammomat 3000 Nova CR
- Siemens Mammomat Novation DR

### **MULTI-DISCIPLINARY LABORATORIES**

A special facility at FOM is the multidisciplinary laboratories commonly known as the MD Labs (I and II). As their name implies, these labs serve various purposes which include wet and dry laboratory practical's, tutorials, self-directed learning stations, structured paraclinical examinations as well as for tutorial and self learning. It also serves as a home-based for the students.



### **CLINICAL SKILLS LABORATORIES**

The Clinical Skill Laboratory (CSL) of Faculty of Medicine provides facilities for the teaching of clinical skills and procedures. It is equipped with wide range of simulators. The centre allows medical and paramedical students and doctors to use these simulators for learning and practicing the clinical skills and procedures in a safe, controlled environment.

For detail information check its webpage: <http://www.ummc.edu.my/csl>.



### **COMPUTER LABORATORIES**

The computers laboratories equip with a total of 90 computers are available to students of UMMC for various computer-aided learning programmes. These laboratories are opened up to 11.30 pm on working days.



## **MEDICAL ILLUSTRATIONS AND MULTIMEDIA DEVELOPMENT UNIT**

This unit is a centre for the production of media and resources to support teaching and research at the faculty. Comprehensive photographic and graphic services are offered as well as a fully equipped video unit. Other services include management of the Faculty's lecture theatres and audiovisual equipment.

## **ANATOMY RESOURCE CENTRE**



The Anatomy Resource Centre (ARC) has been designed to emphasise clinically relevant anatomy and stimulate 'active learning' in students in a pleasant conducive environment. Although designed as a multidisciplinary resource primarily for medical students, it also serves the needs of dental students and others from the allied health sciences as well as postgraduate health professionals. In addition, the ARC plays a very vital role in educating the public about the importance of anatomy in clinical medicine (see below).

Key features include potted and plastinated cadaveric specimens, a range of diagnostic images and clinical scenarios quizzes. In addition, activity stations have been designed to focus on interactive learning through multimedia computers, educational anatomy software/ medical websites as well as anatomy videotapes. Dedicated timetable slots in the Phase I medical course encourage self-learning in the ARC by medical students. All regular ARC users are issued with security smart cards to enter and exit the centre. User profile of the ARC is continuously recorded and analysed from computerised door entry records. Student perception of ARC educational value is assessed regularly through feedback questionnaires surveys.

### **CENTRAL PATHOLOGY MUSEUM**



### **UNIVERSITY BOOK STORE (MEDICAL)**

Located on the ground floor of Menara Timur in UMMC, the Medical Book Store stocks a comprehensive supply of medical textbooks in all medical disciplines. It also stock student's clinical learning aids and stationaries.

### **MEDSOC**

You can have complete information on the Medical Society and their activities at the FOM website.

# CAMPUS FACILITIES

- |    |                              |
|----|------------------------------|
| 1  | ACCOMODATION                 |
| 2  | STUDENT SCHOLARSHIP AND LOAN |
| 3  | STUDENT HEALTH SERVICES      |
| 4  | STUDENT COUNSELING SERVICES  |
| 5  | UNIVERSITY BOOK STORE        |
| 6  | PEKANSISWA                   |
| 7  | SHOPS                        |
| 8  | BANKING SERVICES             |
| 9  | MAIN LIBRARY                 |
| 10 | SPORTS AND RECREATION        |
| 11 | MOSQUE                       |
| 12 | ANNUAL PLANNER & NOTES       |



### **ACCOMMODATION**

The Ibnu Sina Residential College houses 700 Faculty of Medicine students. A branch hostel in Klang, next to the Hospital is specially for medical students in Phase III. Full board and lodging is provided at reasonable rates.

Further information for on-campus or off-campus accommodation can be obtained from the Student Affairs Section, UM.

### **STUDENT SCHOLARSHIP/LOANS UNIT**

This unit, located in the Student Affairs Section, UM handles applications for scholarship/loans from national, state and statutory bodies, including private companies and philanthropic organizations.

### **STUDENT HEALTH CLINIC**

Mon-Fri: 0800 – 1230

Sat: 0800 – 1245 hr

No service on Sun/public holiday

This service is available to all students throughout the year. The clinic is situated in the 12<sup>th</sup> Residential College building in UM

### **UM MEDICAL CENTRE**

A 24-hour emergency medical service is available to all UM students at the Accident & Emergency Unit of the UM Medical Centre.

### **STUDENT COUNSELING SERVICE**

Mon-Fri: 0900 – 1230hr

Sat: 0900 hr

A confidential counseling service available for all UM students, is offered by the Student Development Section, which is situated at the Perdanasiswa Complex.

The UM Medical Center provides an added counseling service for its students. For further information, please refer to current faculty notices on Counseling Service.

### **PEKAN BUKU (0900 – 1700 hr)**

A large bookshop is strategically placed at the Perdanasiswa complex (C). Prices are competitive and the range is wide. A branch outlet for medical books is available on the ground floor of the main hospital block.

### **PEKANSISWA (0900 – 1700 hr)**

A minimarket on the ground floor of the Perdana Siswa building is available for foodstuff, porting and electrical goods.

### **MOSQUE**

Masjid Al-Rahman is situated at the main entrance to UM. A surau is situated adjacent to the hospital. A newly built surau is situated in the Faculty of Medicine at level 4 between the Department of Anatomy and Molecular Medicine.

### **SHOPS - PHARMACY, FRUITSHOP & FLORIST**

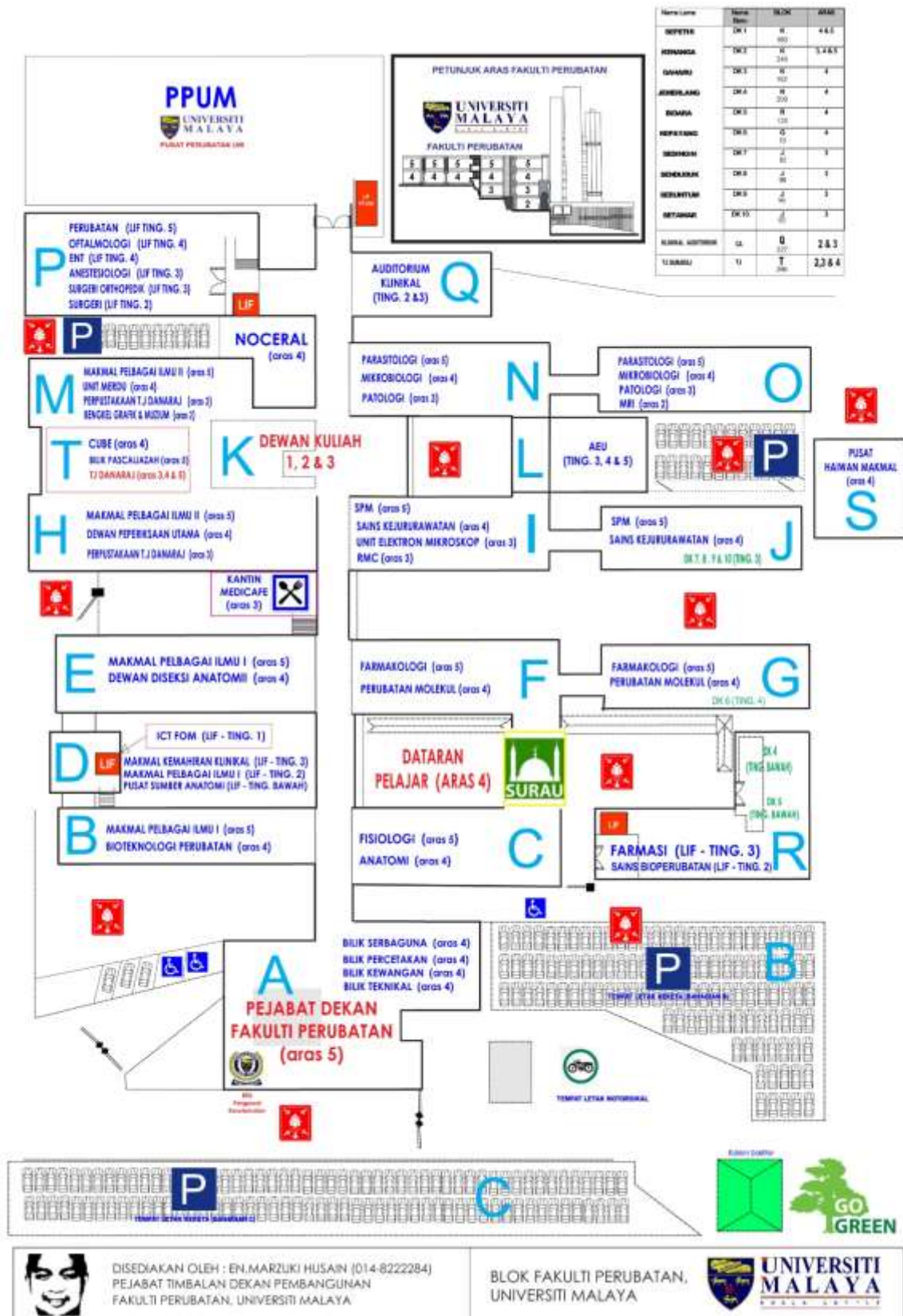
These shops are available on the first and ground floor of the main hospital block.

### **BANKING FACILITIES**

A CIMB is situated on the ground floor of the new administrative building in the campus. A CIMB and a Bank Islam auto-teller machine is available on the ground floor of the main hospital block. A Bank Simpanan Nasional branch is situated in the Siswarama building on the main campus. Bank Islam is situated on the ground of the new High Impact Research building in the campus.

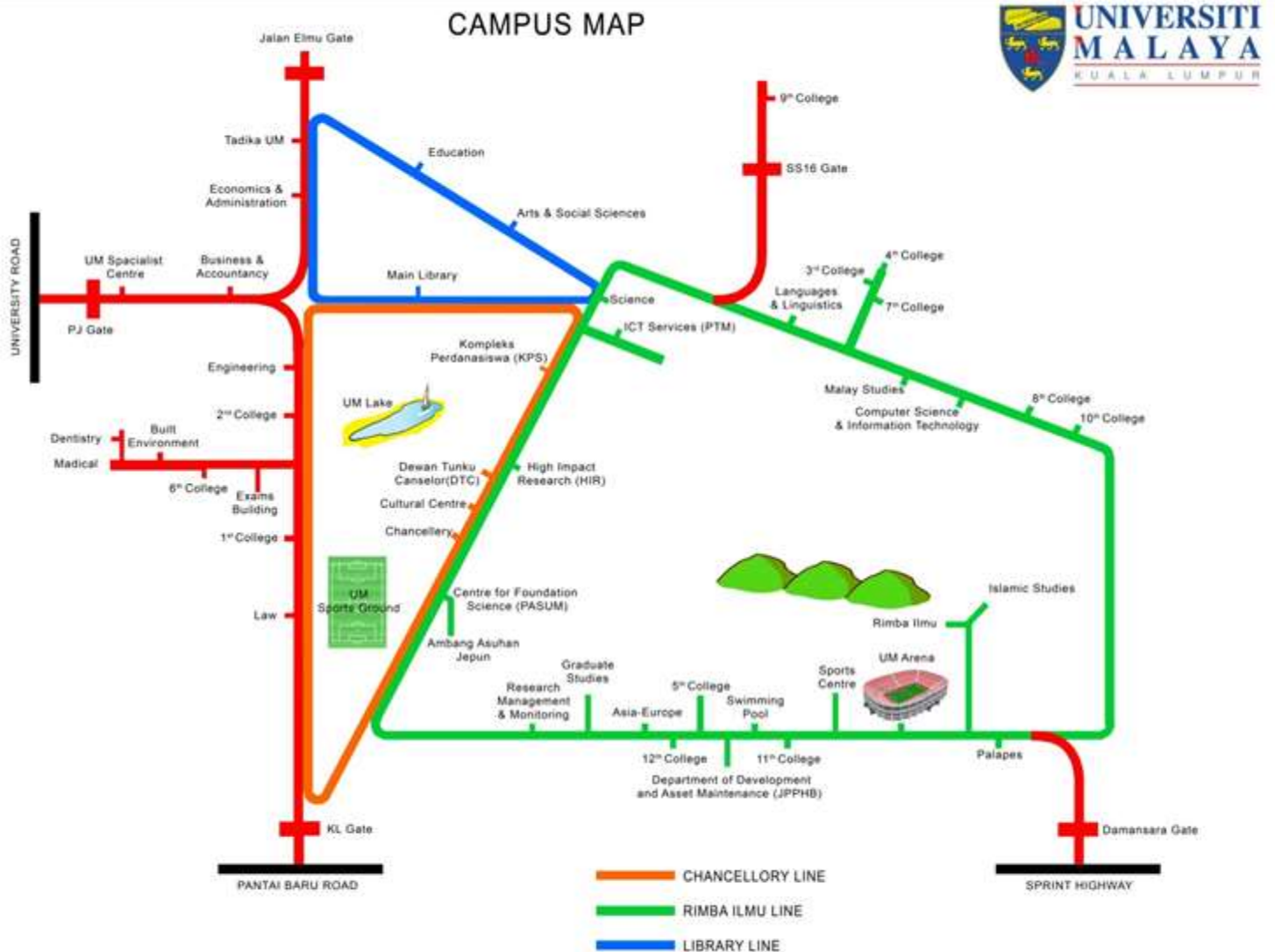
# FACULTY BUILDING PLAN

52



# CAMPUS MAP

53



JULY 2014

Prepared by: Mohd Ridwanudin bin Yusoff

# STUDENT DRESS CODE

54





## ACADEMIC CALENDAR SESSION 2019/2020

Semester 1		
Orientation Programme	1 week	01.09.2019 – 08.09.2019
Lectures	8 weeks	09.09.2019 – 03.11.2019
Mid-Semester Break	1 weeks	04.11.2019 – 10.11.2019
Lectures	6 weeks	11.11.2019 – 22.12.2019
Revision	1 week	23.12.2018 – 29.12.2019
Examination	3 weeks	30.12.2019 – 19.01.2020
Semester Break	4 weeks	20.01.2020 – 16.02.2020
<b>Total</b>	<b>24 weeks</b>	

Semester 2		
Lectures	9 weeks	17.02.2020 – 19.04.2020
Mid Semester Break	1 week	20.04.2020 – 26.04.2020
Lectures	5 weeks	27.04.2020 – 31.05.2020
Revision	1 week	01.06.2020 – 07.06.2020
Examination	3 weeks	08.06.2020 – 28.06.2020
<b>Total</b>	<b>19 weeks</b>	

Break		
11 weeks		29.06.2020 – 13.09.2020

Special Semester		
Lectures	7 weeks	26.06.2020 – 16.08.2020
Examination	1 week	17.08.2020 – 23.08.2020
Break	2 weeks	24.08.2020 – 06.09.2019
<b>Total</b>	<b>10 weeks</b>	

Awal Muharam (Maal Hijrah) (01.09.2019)  
 Yang Dipertuan Agong's Birthday (09.09.2019)  
 Malaysia Day (16.09.2019)  
 Deepavali (27.10.2019)  
 Prophet Muhammad's Birthday (09.11.2019)  
 Christmas (25.12.2019)  
 New Year (01.01.2020)  
 Chinese New Year (25 & 26.02.2020)  
 Federal Territory Day (01.02.2020)  
 Thaipusam (08.02.2020)  
 Labour Day (01.05.2020)  
 Wesak Day (07.05.2020)  
 Nuzul Al-Quran (10.05.2020)  
 Eidul Fitri (24 & 25.05.2020)  
 Eidul Adha (31.07.2020)  
 Awal Muharam (Maal Hijrah) (20.08.2020)

National Day (31.08.2020)

## LIST OF UNDERGRADUATE PROGRAMMES IN THE FACULTY

---

- BACHELOR OF MEDICINE AND  
BACHELOR OF SURGERY
- BACHELOR OF BIOMEDICAL SCIENCE
- BACHELOR OF NURSING SCIENCE

# 2019/2020

## UNDERGRADUATE GUIDEBOOK

---

### Faculty of Medicine

BIO MEDICAL SCIENCE





## ***Message from Head of Department***

On behalf of all academic staff, I wish you my heartiest congratulations for being among those selected into the Biomedical Science Programme.

We appreciate and acknowledge the intellectual ability and enthusiasm that you bring with you. Biomedical Science is well recognised worldwide as a professional degree. In Malaysia, since February 2016, (Allied Health Profession Act 2016-Act 774), this degree is recognized as a professional degree.

You will spend at least 4 years as a Biomedical Science student in this university. This programme will provide a good platform for you to learn and grow to be a holistic, competent Biomedical Science graduate. We hope you will make full use of the opportunities provided for self-development and to be knowledgeable, skilful and ethical.

This guidebook was prepared by the Department of Biomedical Science to serve as a quick reference for information pertaining to the course structure, requirement and goals of the programme. You are expected to familiarise yourself with the information provided in this guidebook so that you can plan well and obtain your degree within the stipulated time.

This guide book also provides contact details of the course coordinators who may be approached whenever the need arises.

We wish you a very warm welcome to the Biomedical Science Programme and we hope that you will have an exciting, challenging and fruitful experience.

**Professor Dr. Umah Rani Kuppusamy**  
**Head**  
**Department of Biomedical Science**

2019/2020



# ACADEMIC STAFF

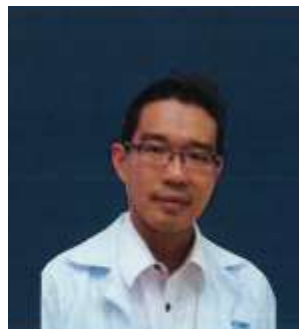
## HEAD OF DEPARTMENT

### PROFESSOR



**Prof. Dr. Umah Rani Kuppusamy**  
B.Sc (Mal), Ph.D (S'pore)  
Email: [umah@um.edu.my](mailto:umah@um.edu.my)  
Tel: +603-79674900

### PROFESSOR



**Prof. Dr. Chua Kek Heng**  
B.Sc (Mal), M.Sc (Mal), Ph.D (Mal)  
Email: [khchua@um.edu.my](mailto:khchua@um.edu.my)  
Tel: +603-79676607



## SENIOR LECTURERS

60



**Dr. Suzita Mohd Noor**

B.BiomedSc (Mal), M.Med.Sc (Mal), Ph.D  
(Deakin)

Email : [suzita@um.edu.my](mailto:suzita@um.edu.my)

Tel: +603-79674901



**Dr. Azlina Ahmad Annuar**

B.Sc (UCL), Ph.D (Imperial)

Email: [azlina\\_aa@um.edu.my](mailto:azlina_aa@um.edu.my)

Tel: +603-79674948



**Dr. Ong Kien Chai**

B.BiomedSc (UKM), Ph.D (Mal)

Email : [kcong@um.edu.my](mailto:kcong@um.edu.my)

Tel: +603-79674799



**Dr. Rozaida Poh Yuen Ying**

B.Sc (Mal), M.Med.Sc (Mal), Ph.D (Mal)

Email: [rozaiday@um.edu.my](mailto:rozaiday@um.edu.my)

Tel: +603-79676611

2019/2020



## SENIOR LECTURERS

61



**Dr. Anwar Norazit**

B.BiomedSc (Mal), M.Med.Sc (Mal), Ph.D  
(Griffith)

Email: [anwar.norazit@um.edu.my](mailto:anwar.norazit@um.edu.my)

Tel: +603-79676604



**Dr. Kee Boon Pin**

B.BiomedSc (Mal), Ph.D (Mal)

Email: [bpkee@um.edu.my](mailto:bpkee@um.edu.my)

Tel: +603-79676601



**Dr. Nur'Ain Salehen**

B.Sc (Bradford), M.Sc (Leicester), Ph.D  
(Leicester)

Email: [nurain\\_36@um.edu.my](mailto:nurain_36@um.edu.my)

Tel: +603-79674902



**Dr. Chai Hwa Chia**

B.BiomedSc (Mal), M.Med.Sc (Mal), Ph.D  
(Mal)

Email: [hccha18@um.edu.my](mailto:hccha18@um.edu.my)

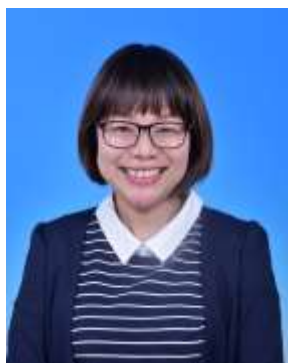
Tel: +603-79677522

2019/2020



## SENIOR LECTURERS

62



**Dr. Puah Suat Moi**  
B.sc (Mal), M.MedSc (Mal), Ph.D (Mal)  
Email: [suatmoi@um.edu.my](mailto:suatmoi@um.edu.my)  
Tel: +603-79677511



**Dr. Bavani Arumugam**  
B.sc (Mal), M.sc (Mal) Ph.D(Mal)  
Email: [bavani@um.edu.my](mailto:bavani@um.edu.my)  
Tel: +603-79674903



**Dr. Tan Soon Hao**  
B.sc (Mal), Ph.D (Mal)  
Email: [tansoonhao@um.edu.my](mailto:tansoonhao@um.edu.my)  
Tel: +603-79677898



**Dr. Kamariah Ibrahim**  
B.Biomed Sc (Mal), M.Med.Sc (Mal), Ph.D (Mal)  
Email: [kamariahibrahim2106@um.edu.my](mailto:kamariahibrahim2106@um.edu.my)  
Tel: +603-79676649



**Dr. Looi Mee Lee**  
B.sc (Mal), Ph.D (Mal)  
Email: [meelee.looi@um.edu.my](mailto:meelee.looi@um.edu.my)  
Tel: +603-79677898

2019/2020



# GENERAL STAFF

## MEDICAL LAB TECHNOLOGISTS

63



**Pn. Jauhar Lisa Binti Junaidi**

Email : [lisa@um.edu.my](mailto:lisa@um.edu.my)

Tel: +603-79674949



**Pn. Siti Aisha Binti Hassan**

Email: [aisha1@um.edu.my](mailto:aisha1@um.edu.my)

Tel: +603-79674949



**Pn. Norhayati Binti Md. Arifin**

Email : [yatie87@um.edu.my](mailto:yatie87@um.edu.my)

Tel: +603-79674949



**Pn. Norul Ezzah Ismail**

Email: [ezzah87@um.edu.my](mailto:ezzah87@um.edu.my)

Tel: +603-79676603



**Pn. Siti Nor Rabiatalmadia Binti Malek**

**Razuan**

Email: [mianaifie@um.edu.my](mailto:mianaifie@um.edu.my)

Tel: +603-79677507



**Cik Noor Faten Binti Dollah**

Email: [faten@um.edu.my](mailto:faten@um.edu.my)

Tel: +603-79676603



**Cik Nur Wahida Binti Abdul Rahman**

Email: [nurwahida@um.edu.my](mailto:nurwahida@um.edu.my)

Tel: +603-79674949

2019/2020



## ASSISTANT SCIENCE OFFICERS

64



**Cik Noor Haswani Binti Hamidy**  
Email: [haswanihamidy@um.edu.my](mailto:haswanihamidy@um.edu.my)  
Tel: +603-79677507



**Cik Noor Khairina Binti Hashim**  
Email: [khairinahashim@um.edu.my](mailto:khairinahashim@um.edu.my)  
Tel: +603-79677507

## ADMINISTRATIVE ASSISTANTS



**Pn. Noremi Binti Mahusin**  
Email: [noremi@um.edu.my](mailto:noremi@um.edu.my)  
Tel: +603-7966616



**Pn. Nurliyana Sufina**  
Email: [sufina@um.edu.my](mailto:sufina@um.edu.my)  
Tel: +603-7966605

2019/2020



## OPERATIONAL ASSISTANTS

65



**Pn. Rohana Binti Osman**  
Email: [rohana\\_osman@um.edu.my](mailto:rohana_osman@um.edu.my)  
Tel: +603-79676605



**En. Zulkeflee Mukhtar**  
Email: [zulk@um.edu.my](mailto:zulk@um.edu.my)  
Tel: +603-79676605

2019/2020





## INTRODUCTION

Students enroll in the Biomedical Science Programme for a minimum of 4 years. At the start, students are provided with a broad-based knowledge of basic medical sciences, where students will acquire essential medical laboratory skills. Students then proceed to the specific medical laboratory disciplines of their choice, be it in Histopathology, Haematology, Clinical Pathology, Physiology, Pharmacology, Medical Microbiology or Medical Parasitology. Students will learn the principles underlying the various analytical methods and investigatory procedures used in laboratory medicine, and obtain practical training to consolidate theoretical instruction. In addition, instruction is provided on research methodologies as students will be carrying out research projects of their own design during their final year.

Successful graduates in Biomedical Science should be able to assume responsible positions in the following situations: (1) as part of a healthcare team that is concerned with the care of patients and/or with basic and applied clinical research; (2) as part of a research team in allied medical disciplines, in food and pharmaceutical industries, in public health, and in biotechnology. Career opportunities are wide-ranging and include employment in clinical laboratory service departments, teaching institutions, and research centres in public as well as private sectors. Post-graduate training is strongly encouraged, either within the country or abroad, all towards attaining the goal of heightening the quality of medical science and medicine.



## **PROGRAMME OBJECTIVES**

The aim of the Programme is:

- i. To produce graduates who are laboratory oriented and technically competent. Graduates should be able to fulfill the human resource requirement for skilled personnel in Biomedical Science, which is an expanding and advancing field globally.
- ii. To produce graduates who are competent in laboratory technology, pre-clinical or medical research, research in biotechnology, and other related areas/fields which can contribute to the advancement of Medical Science Technology. Graduates will be able to seek employment in healthcare and research institutions, as well as with the industrial, insurance, and education sectors.

## **PROGRAMME OUTCOMES**

At the end of Bachelor of Biomedical Science Programme, graduates are able to:

Apply knowledge and competent technical skills in health and biomedical sciences to contribute effectively and professionally to the society. : PO 1; PO 2

Relate social responsibility, ethical awareness and professionalism to the needs of the community and environment. : PO 3; PO 4

Function effectively as an individual or within a team, with the capability of becoming a leader. : PO 5

Master lifelong learning skills in order to think and resolve problems critically and scientifically. : PO 6

Demonstrate entrepreneurial skills and lifelong learning so as to ensure success in career advancements. : PO 7; PO 8



## **ACADEMIC PROGRAMME & COURSE STRUCTURE**

The academic year consists of eight semesters and a special semester. Each semester normally consists of:

1. Lectures – 14 weeks
2. Vacation (During Mid Semester) – 1 week
3. Examination – 3 weeks

Meanwhile the special semester consists of 8 weeks. Each student is given 3 weeks off within the 2 normal semesters.

Course offered is categorized under:

- I. University Courses
- II. Core Courses (Faculty and Department)
- III. Elective Courses (Faculty and Department)

The courses will be conducted via lectures, tutorials, discussion and practical sessions in the Biomedical Science Department and University Malaya Medical Centre.

Note:

1. Faculty elective and department elective courses are offered by departments in the Faculty of Medicine.
2. In the event of insufficient enrolment (fewer than 5 students), the Faculty reserves the right to not offer the course.
3. All information is correct up to time of printing.



## PROGRAMME STRUCTURE

### 1. Malaysian Students:

Course Level		Course Name	Credits
University Courses	GIG1001	Islamic and Asian Civilisation Tamadun Islam dan Tamadun Asia (TITAS)	2
	GIG1002	Ethnic Relations Hubungan Etnik	2
	GIG1003	Basics of Entrepreneurship Culture Asas Pembudayaan Keusahawanan	2
	GIG1004	Information Literacy Literasi Maklumat/	2
	GLTXXXX	English for Communication	6
	GIG1005	Social Engagement Jalinan Masyarakat	2
	GKXXXX	Co-Curriculum Courses	2
		Faculty's External Elective Course Kursus Elektif Luar Fakulti	3
	Total		21
Core Courses	Programme Core Courses Kursus Teras Program		80
Elective Courses	Faculty Elective Courses Kursus Elektif Fakulti		7
	Programme Elective Courses Kursus Elektif Program		28
Total Credits			136



## PROGRAMME STRUCTURE

### 2. International Students:

Course Level		Course Name	Credits
University Courses	GIG1006	Introduction to Malaysia Pengenalan Kepada Malaysia	2
	GIG1003	Basics of Entrepreneurship Culture Asas Pembudayaan Keusahawanan	2
	GIG1004	Information Literacy Literasi Maklumat	2
	GLTXXXX	English for Communication	6
	GLT1017	Basic to Malay Language Bahasa Melayu Asas	2
	GIG1005	Social Engagement Jalinan Masyarakat	2
	GKXXXXXX	Co-Curriculum Courses	2
		Faculty's External Elective Course Kursus Elektif Luar Fakulti	3
	Total		21
Core Courses	Programme Core Courses Kursus Teras Program	80	
Elective Courses	Faculty Elective Courses Kursus Elektif Fakulti	7	
	Programme Elective Courses Kursus Elektif Program	28	
Total Credits			136



## **COURSE STRUCTURE**

### **Year 1 (2019/2020)**

#### **Semester I**

Category	Course Code	Course Name	Credits
University Course	GIG1001 / GLT1017	Islamic and Asian Civilisation (C) / Basic Malay Language (NC)	2
	GIG1003	Basic of Entrepreneurship Culture	2
Core Course	MIX1001	Basic Anatomy	2
	MIX1002	Physiology I	3
	MIC1001	Biochemistry for Biomedical Science	4
	MIC1002	Fundamental Cell Biology and Genetics	3
	MIC1003	Laboratory Mathematics for Biomedical Science	2

#### **Semester II**

Category	Course Code	Course Name	Credits
University Course	GIG1002 / GIG1006	Ethnic Relations (C) / Introduction to Malaysia (NC)	2
	GLTXXXX	English for Communication Programme	3
	GIG1004	Information Literacy	2
Core Course	MIX1003	Physiology II	3
	MIC1004	Essential Medical Microbiology for Biomedical Science	3
	MIC1005	Biostatistics and Epidemiology for Biomedical Science	2
	MIC1006	Parasitology	2
Elective/Faculty Course	MIX1004	Introduction to Radiation Protection*	2

(C) : Citizen

(NC) : Non Citizen



**Year 2 (2020/2021)**  
**Semester I**

Category	Course Code	Course Name	Credits
University Course	GLT XXXX	English for Communication Programme	3
Core Course	MIC2001	Genomics and Gene Expression	3
	MIC2002	Pathology for Biomedical Science	3
	MIC2003	Techniques in Biomedical Sciences	2
	MIC2004	Principles in Pharmacology and Toxicology	3
Elective Faculty/Department Course	MIC2005	Phlebotomy for Biomedical Science	3
	MIC2006	Bio-risk Management for Biomedical Science	2
	MIC2007	Microbial Infections	2
	MIC2008	Pathophysiology	3

**Semester II**

Category	Course Code	Course Name	Credits
University Course	GIG1005	Social Engagement	2
Core Course	MIC2009	Histological Techniques in Biomedical Science	3
	MIC2010	Immunology for Biomedical Science	3
	MIC2011	Molecular Techniques	3
Elective Faculty/Department Course	MIC2012	Research Skills for Biomedical Science	3
	MIC2013	Laboratory Animal Science	3
	MIC2014	Diagnostic Parasitology	3
	MIX2002	Behavioral Science*	2

**Special Semester**

Category	Course Code	Course Name	Credits
Core Course	MIC2015	Biomedical Laboratory Posting	3



**Year 3 (2021/2022)**  
**Semester I**

Category	Course Code	Course Name	Credits
University Course		Co-Curriculum Course	2
		Faculty's External Elective Course	3
Core Course	MIC3001	Critical Thinking for Biomedical Science	2
	MIC3002	Fundamental Hematology	3
	MIC3003	Applied Anatomic Pathology	3
Elective Faculty/ Department Course	MIC3004	Cytology for Biomedical Science	3
	MIC3005	Advanced Medical Bacteriology and Mycology	2
	MIC3006	Blood Transfusion Technology	3
	MIC3007	Cancer Biology	3
	MIX3002	Smoking Cessation Program*	2

**Semester II**

Category	Course Code	Course Name	Credits
Core Course	MIC3008	Chemical Pathology	4
	MIC3009	Ethical Practices in Biomedical Science	3
Elective Faculty/ Department Course	MIC3010	Advances in Medical Pharmacology	3
	MIC3011	Advances in Medical Virology	2
	MIC3012	Advanced Diagnostic Parasitology	3





### Year 4 (2022/2023)

#### Semester I

Category	Course Code	Course Name	Credits
Core Course	MIC4001	Research Design in Biomedical Science	6
Elective Faculty/ Department Course	MIC4007	Neuroscience	3
	MIC4004	Diagnostic Bacteriology and Mycology	3

#### Semester II

Category	Course Code	Course Name	Credits
Core Course	MIC4002	Biomedical Science Horizons	3
	MIC4005	Research in Biomedical Science	3
	MIC4006	Laboratory Management and Quality Control	6
Elective Faculty/ Department Course	MIX3001	Techniques in Molecular Medicine	2
	MIX3003	Drugs : From Target to Market	2
	MIC4003	Advanced Human Physiology	3
	MIC4008	Applied Phlebotomy	2
	MIC4009	DNA Cloning in Biomedical Science	3
	MIC4010	Diagnostic Virology	3
	MIX4001	Introduction to Qualitative Research*	3

#### Special Semester

Category	Course Code	Course Name	Credits
Elective Faculty/ Department Course	MIC4011	Industrial Posting	3

\* Faculty Elective Course



YEAR 1 SEMESTER I (2019/2020)

**MIX1001: Basic Anatomy (2 credit hours)**

751

**Learning Outcomes**

1. Explain the basic concepts and terms of human anatomy.
2. Explain organisation structure of the major organ systems in the human body.
3. Describe the events during the pre-embryonic and embryonic periods, and during fetal development.

**Course Synopsis**

This course introduces the basic concepts and terminologies of human anatomy. Emphasis is given on the organisation structure of the major organ systems in the human body.

**Reference Text**

1. Edith Applegate MS. The Anatomy and Physiology Learning System. Latest edition. St. Louis, MO: Saunders Elsevier.
2. Tortora GJ. & Derrickson BH. Principles of Anatomy and Physiology Volume 1 and 2. Latest edition. New Jersey: John Wiley & Sons, Inc.
3. Waugh A. & Grant A. Ross and Wilson Anatomy and Physiology in Health and Illness. Latest edition. Edinburgh: Churchill Livingstone.
4. Drake R. Wayne Vogl, A & Mitchell A.W.M. Gray's Basic Anatomy: with STUDENT CONSULT Online Access. Latest edition. Philadelphia: Elsevier Churchill Livingstone.

**Course Coordinator**

Dr. Wong Kah Hui  
[wkahhui@um.edu.my](mailto:wkahhui@um.edu.my)  
03-79674729

**Course Assessment**

Course will be assessed by Continuous Assessment (40%) and a Final Exam (60%)

2019/2020



**MIX1002: Human Physiology I (3 credit hours)**

761

**Learning Outcomes**

1. Describe the basic cell structures and physiological processes that occur in different types of cells.
2. Describe the functions and regulatory mechanisms of the cardiovascular system.
3. Describe the functions and regulatory mechanisms of the respiratory system.

**Course Synopsis**

This course introduces physiology of different types of cells, principles of homeostasis, cardiovascular system, haemodynamics and respiratory system.

**Reference Text**

1. Widmaier E.P., Raff H. and Strang K.T. (2016) Vander's Human Physiology. The Mechanisms of Body Functions (14<sup>th</sup> edition), McGraw-Hill, New York.
2. Costanzo L. S., (2015) Physiology (5<sup>th</sup> edition), Saunders Elsevier, London.
3. Sherwood L., (2015) Human Physiology. From Cells to Systems (9<sup>th</sup> edition), Brooks/Cole, Australia.
4. Raman A, Ruby H. dan Afandi M. (1995) Fisiologi Manusia, (Edisi Kedua), Penerbit Fajar Bakti, Kuala Lumpur.
5. Rosnah Ismail, Raji Subramanian, Lam Sau Kuen and Ruby Husain, eds, (2006) Learning Physiology Through Practicals. University of Malaya Press.

**Course Coordinator**

Dr. Lit Lei Cheng

[lliecheng@um.edu.my](mailto:lliecheng@um.edu.my)

03-79674925

**Course Assessment**

Course will be assessed by Continuous Assessment (40%) and a Final Exam (60%)

2019/2020



**MIC1001: Biochemistry for Biomedical Science (4 credit hours)**

77

**Learning Outcomes**

1. Identify characteristics and reactions of biomolecules.
2. Describe the roles of the main tissues and organs in the body in metabolic regulation and homeostasis as well as integration of metabolism.
3. Execute Biochemistry practical based on the instructions given.

**Course Synopsis**

This course introduces and illustrates the cell structure and function and importance of various macromolecules such as nucleic acid, carbohydrate, lipid and protein as well as their derivatives. This course will also introduce basic bioenergetics and illustrate the metabolism of various molecules such as carbohydrate, lipid, protein and nucleic acid. This will be followed by discussions on energy yielding processes, integration of metabolism as well as regulation of hormones and second messengers. Basic concepts on acid, base and buffer, simple calculations and several analytical techniques will also be introduced.

**Reference Texts**

1. Berg JM, Tymoczko JL, Gatto GJ, Stryer L. 2015. Biochemistry. 8<sup>th</sup> edition. Macmillian Learning.

**Additional Texts**

2. Murray RK, Granner DK, Mayers PA, Rodwell VW. 2006. Harper's Biochemistry. 27<sup>th</sup> edition. McGraw-Hill Medical.
3. Rodwell VW, Bender DA, Botham KM, Kennely PJ, Weil PA. 2015. Harper's Illustrated Biochemistry. 30<sup>th</sup> Edition. McGraw-Hill Education
4. Nelson DL, Cox MM. 2012. Lehninger Principles of Biochemistry. 6<sup>th</sup> edition. WH Freeman.
5. Skoog DA, West DM, Holler FJ, Crouch SR. 2013. Fundamentals of Analytical Chemistry. 9<sup>th</sup> Edition. Brooks/Cole, Thomson Learning Inc.

**Course Coordinator**

Professor Dr. Umah Rani Kuppusamy  
[umah@um.edu.my](mailto:umah@um.edu.my)  
03-79674900

**Course Assessment**

Course will be assessed by Continuous Assessment (70%) and a Final Exam (30%)

2019/2020



**MIC1002: Fundamental Cell Biology and Genetics (3 credit hours)**

78

**Learning Outcomes**

1. Identify various cell functions, including normal and abnormal cell replication and signalling.
2. Describe the principles of genetics and the relationship between genes and inheritance.
3. Summarise the mechanisms of evolution and genetic diversity.

**Course Synopsis**

This course is designed to extend student knowledge and understanding on cellular components (organelles) and functions; interactions between cells and their environment; the origin and evolution of life; basic principles of genetics; and the link between evolution and genetic diversity.

**Reference Text**

1. Alberts B., et al. (2016). Essential Cell Biology (4<sup>th</sup> edition). W.W. Norton & Company.
2. Snustad D. P. and Simmons M. J. (2015). Principles of Genetics (7<sup>th</sup> edition). Wiley.
3. Futuyma D. J and Kirkpatrick M. (2017). Evolution (4<sup>th</sup> edition). Sinauer Associates, Inc.

**Course Coordinator**

Dr. Suzita Mohd Noor

[suzita@um.edu.my](mailto:suzita@um.edu.my)

03-79674901

**Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



**MIC1003: Laboratory Mathematics for Biomedical Science (2 credit hours)**

791

**Learning Outcomes**

1. To recognize the basic principles of laboratory mathematics for Biomedical Science.
2. To describe the applications of laboratory mathematics.

**Course Synopsis**

Instruction is provided on basic mathematics relevant to laboratory technology and sciences, including units and their prefixes, conversions between units of measurement, determinations of dilution and concentration, and calculation of molarity. Students are introduced the predictive value theory, and reference range analysis.

**Reference Text**

1. Lorraine J. Doucette. 2010. Mathematics for The Clinical Laboratory. Saunders W B Company.

**Course Coordinator**

Dr. Rozaida Poh Yuen Ying  
[rozaiday@um.edu.my](mailto:rozaiday@um.edu.my)  
03-79676611

**Course Assessment**

Course will be assessed by Continuous Assessment (40%) and a Final Exam (60%)

2019/2020



**YEAR 1 SEMESTER II (2019/2020)**

**MIX1003: Human Physiology II (3 credit hours)**

801

**Learning Outcomes**

1. Describe the functions and regulatory mechanisms of the gastrointestinal system.
2. Describe the functions and regulatory mechanisms of the renal system.
3. Describe the functions and regulatory mechanisms of the endocrine system.
4. Describe the functions and regulatory mechanisms of the nervous system.

**Course Synopsis**

This course introduces and illustrates the cell structure and function and importance of various macromolecules such as nucleic acid, carbohydrate, lipid and protein as well as their derivatives. This course will also introduce basic bioenergetics and illustrate the metabolism of various molecules such as carbohydrate, lipid, protein and nucleic acid. This will be followed by discussions on energy yielding processes, integration of metabolism as well as regulation of hormones and second messengers.

**Reference Text**

1. Widmaier E.P., Raff H. and Strang K.T. (2016) Vender's Human Physiology. The Mechanisms of Body Functions (14<sup>th</sup> edition), McGraw-Hill, New York.
2. Costanzo L. S., (2013) Physiology (5th edition), Saunders Elsevier, London.
3. Sherwood L., (2015) Human Physiology. From Cells to Systems (9<sup>th</sup> edition), Brooks/Cole, Australia.
4. Raman A, Ruby H. dan Afandi M. (1995) Fisiologi Manusia, (Edisi Kedua), Penerbit Fajar Bakti, Kuala Lumpur.
5. Rosnah Ismail, Raji Subramanian, Lam Sau Kuen and Ruby Husain, eds, (2006) Learning Physiology Through Practicals. University of Malaya Press.

**Course Coordinator**

Dr. Lit Lei Cheng  
[lliecheng@um.edu.my](mailto:lliecheng@um.edu.my)  
03-79674925

**Course Assessment**

Course will be assessed by Continuous Assessment (40%) and a Final Exam (60%)

2019/2020





**MIC1004: Essential Medical Microbiology for Biomedical Science (3 credit hours)**

81

**Learning Outcomes**

1. Describe pathogenic microorganisms and their relationship with disease.
2. Identify pathogenic microorganisms using specific laboratory techniques.
3. Identify specific diagnostic tests for pathogenic microorganisms.

**Course Synopsis**

This course introduces the applications of microbiology in the laboratory diagnosis of pathogenic micro-organisms: bacteria, fungi and viruses. Emphasis is given on the important key features of micro-organisms, growth characteristics, virulent factors and laboratory identification.

**Reference Text**

1. Karen C. Carroll, Stephen A. Morse, Timothy A. Mietzner & Steve Miller. Jawetz, Melnick, & Adelberg's Medical Microbiology. 27th Edition, McGraw-Hill Medical, 2015.
2. Gerard J. Tortora, Berdell R. Funke, & Christine L. Case. Microbiology: An Introduction. 12th Edition, Pearson Education, 2016
3. Talaro, Kathleen Park & Chess, Barry. Foundations in Microbiology, 10th Edition, McGraw-Hill Higher Education, 2017

**Course Coordinator**

Dr. Puah Suat Moi

[suatmoi@um.edu.my](mailto:suatmoi@um.edu.my)

03-79677511

**Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



**MIC1005: Biostatistics and Epidemiology for Biomedical Science**  
(2 credit hours)

821

**Learning Outcomes**

1. Define basic concepts of epidemiology and biostatistics.
2. Recognise the applications of epidemiology and biostatistics in biomedical science.
3. Demonstrate the applications of epidemiology and biostatistics in biomedical science.

**Course Synopsis**

This will cover basic statistical techniques and epidemiology.

The topics for statistic include: descriptive analysis, elements of probability, introduction to estimation and hypothesis testing, analytical techniques for categorical and continuous data and regression analysis. The topics for epidemiology include: patterns of diseases and transmission of disease, measurement of disease and health, morbidity and mortality rates and ratios, principles of screening, prevention and control, surveillance of diseases.

**Reference Text**

1. Gordis, L. (2013). Epidemiology (5th edition). Saunders Elsevier.
2. Glantz, S. A. (2012). Primers of Biostatistics (7th edition). McGraw Hill Professional.

**Course Coordinator**

Dr. Kee Boon Pin

[bpkee@um.edu.my](mailto:bpkee@um.edu.my)

03-79676601

**Course Assessment**

Course will be assessed by Continuous Assessment (50%) and a Final Exam (50%)

2019/2020



**MIC1006: Parasitology (2 credit hours)**

83

**Learning Outcomes**

1. To identify the basic concept of parasitology and pathogenesis of parasitic diseases.
2. To classify the main groups of human endoparasites and ectoparasites, as well as arthropods and their significance as vectors.
3. To describe the morphology, life cycle, transmission methods and the control of selected parasites.

**Course Synopsis**

This course introduces the terminology and classification of protozoology, helminthology, arthropods, and poisonous and venomous animals.

**Reference Text**

1. CK Jayaram Paniker. 2013. Textbook of Medical Parasitology. 7<sup>th</sup> Edition. Jaypee.
2. John, D.T. 2006. Markell and Voge's Medical Parasitology. 9<sup>th</sup> Edition. WB Saunders Co.
3. Mahmud R, Lim YA, Amir A. 2017. Medical Parasitology. Springer.

**Course Coordinator**

Dr. Amirah Amir

[amirahamir@um.edu.my](mailto:amirahamir@um.edu.my)

03-79674752

**Course Assessment**

Course will be assessed by Continuous Assessment (40%) and a Final Exam (60%)

2019/2020



**MIX1004: Introduction to Radiation Protection (2 credit hours)**

84

**Learning Outcomes**

1. Clarify the source, measurement unit and effects of ionizing radiation
2. Apply the principles and practice of radiation safety in hospitals.
3. Describe radiation detectors as well as personal, workplace and environment dose monitoring.
4. Prepare assignment conclusion and present clearly in group.

**Course Synopsis**

Source of ionizing radiation. Quantities and radiation unit. Biological effect of ionizing radiation. Principle and practice of radiation safety. Radiation detector. Personal radiation protection, dosimeters and monitoring. Workplace and environment monitoring. Relevant material in radiation protection. Radiographer's role in radiation protection. X-ray equipment and department design. Public education of radiation protection.

**Reference Text**

1. Principles of Radiological Physics, Graham D T, 1996. Churchill Livingstone.
2. Christensen's Physics of Diagnostic Radiology, Curry T S et al 1990. Lea & Fibiger.
3. Clinical Radiobiology, Nias A H W, 1988. Churchill Livingstone.
4. An Introduction to Radiobiology Physics, Nias A H W, 1990. Churchill Livingstone.

**Course Coordinator**

En. Shahrin Nizam bin Daman Huri  
[shahrin@um.edu.my](mailto:shahrin@um.edu.my)

**Course Assessment**

Course will be assessed by Continuous Assessment (40%) and a Final Exam (60%)

2019/2020



**Learning Outcomes**

1. Describe the nature, organization and specific characteristics of human chromosomes in the human genome.
2. Differentiate the mechanisms underlying gene replication in prokaryotic and eukaryotic cells.
3. Describe the types of mutations that can occur in the genome.
4. Describe the mechanisms of gene expression.

**Course Synopsis**

Students will learn about the structure of the human genome in detail, including the organization of genes and non-coding regions and the functional basis for these regions of the genome. Cellular processes such as DNA replication and control of gene expression will be covered to give the students an understanding of the key events. Mechanisms underlying cell cycle control, DNA damage and repair will be covered and applied to cancer development.

**Reference Text**

1. Alberts, B. (2015). Molecular Biology of The Cell (6<sup>th</sup> Edition). Garland Science.
2. Watson, J. D., et al. (2013). Molecular Biology of The Gene (7<sup>th</sup> Edition). Pearson Education.
3. Lewin, B. (2017). Genes: XII. Oxford University Press.
4. Strachan, T. & Read, A. P. (2011). Human Molecular Genetics (4<sup>th</sup> Edition) Garland Publishing.

**Course Coordinators**

Dr. Azlina Ahmad Annuar

[azlina\\_aa@um.edu.my](mailto:azlina_aa@um.edu.my)

03-79674948

**Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)



**MIC2002: Pathology for Biomedical Science (3 credit hours)**

86

**Learning Outcomes**

1. Describe basic concepts and theories in the field of pathology.
2. Identify morphological changes in pathological conditions.

**Course Synopsis**

This course covers basic pathological processes including:

1. Cellular responses to injury
2. Inflammation, healing and repair
3. Disorders of body fluids, homeostasis and blood flow
4. Nutritional disorders
5. Metabolic disorders
6. Disorders of growth
7. Neoplasia
8. Disorders of the immune system.
9. Relevant structural changes associated with respective pathological conditions, demonstrable at light microscopy level, will form an essential component of this course.

**Reference Text**

Simon Cross. 2013. Underwood's Pathology: a Clinical Approach. 6th Edition. Churchill Livingstone.

**Course Coordinator**

Dr. Tan Soon Hao

[tansoonhao@um.edu.my](mailto:tansoonhao@um.edu.my)

03-79676654

**Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



## MIC2003: Techniques in Biomedical Science (2 credit hours)

87

### **Learning Outcomes**

1. Identify basic techniques in biomedical science.
2. Describe basic techniques used in biomedical science

### **Course Synopsis**

This course covers the scientific principles on which biomedical science techniques are based.

### **Reference Text**

1. Ronald B. Corley. 2005. A guide to methods in biomedical sciences. Springer Science + Business Media, Inc.

### **Additional Texts/Reading Materials**

1. Pitt, S. J. & Cunningham, J. 2009. An Introduction to Biomedical Science in Professional and Clinical Practice. Wiley Blackwell, 1<sup>st</sup> edition.
2. Skoog, D. A., West, D. M., Holler, F. J. & Crouch, S. R. 2004. Fundamentals of Analytical Chemistry. 8<sup>th</sup> edition. Canada: Thomson Brooks/Cole.

### **Course Coordinator**

Dr. Anwar Norazit

[anwar.norazit@um.edu.my](mailto:anwar.norazit@um.edu.my)

03-79676604

### **Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020





## MIC2004: Principles in Pharmacology and Toxicology (3 credit hours)



### Learning Outcomes

1. Describe the concepts of pharmacokinetics and pharmacodynamics.
2. Explain the effects of drugs on the parasympathetic and sympathetic systems; their mechanisms of action; adverse effects and therapeutic uses.
3. Describe principles of toxicology.
4. Describe principles of anticancer and antimicrobial agents.

### Course Synopsis

This course focuses on the:

1. General principles of pharmacokinetics & pharmacodynamics.
2. Pharmacological basis for the use of drugs (parasympathomimetic, sympathomimetic and neuromuscular systems).
3. Factors affecting drug response.
4. General principles of toxicology.
5. Various clinical manifestations to different toxic compounds.
6. General mechanisms of toxicity.
7. The toxic actions of metals and non-metals.
8. Evaluation of toxicity.
9. Principles of anticancer and antimicrobial agents.

### Reference Text

1. Rang, H. P., Dale, M. M., Ritter, J. M., Flower, R. J. & Henderson, G. (2011). Rang and Dale's Pharmacology (7<sup>th</sup> edition). Elsevier.
2. Katzung, B., Masters, S. & Trevor, A. (2011). Basic & Clinical Pharmacology (12<sup>th</sup> edition). McGraw Hill Professional.
3. Klaassen, C. D. (2013). Casarete & Doull's Toxicology: The Basic Science of Poisons (8<sup>th</sup> Edition). McGraw Hill Professional.

### Course Coordinator

Dr. Zaridatul Aini Ibrahim  
[zaridatulaini@um.edu.my](mailto:zaridatulaini@um.edu.my)  
03-79675727

### Course Assessment

Course will be assessed by Continuous Assessment (40%) and a Final Exam (60%)

2019/2020



**MIC2005: Phlebotomy for Biomedical Science (3 credit hours)**

89

**Learning Outcomes**

1. Describe the correct sites, equipment, procedures and techniques for collection and handling of blood or other body fluid specimens.
2. Perform appropriate methods for collection and handling of blood or other body fluid specimens.
3. Propose appropriate methods to troubleshoot problems during clinical specimen collection and handling.

**Course Synopsis**

The student will be introduced to basic theories and practice of phlebotomy. The student will learn anatomy and physiology appropriate to drawing a blood specimen, and the requirements and procedures involved with specimen collection, including of other bodily fluids. The student will also appreciate the need for professionalism and communication when interacting with patients and donors.

**Reference Text**

1. McCall, R. E. and Tankersley C.M (2015). Phlebotomy Essentials (6th Edition). Lippincott Williams & Wilkins.
2. Strasinger, S.K and Di Lorenzo M.S (2014). Urinalysis and Body Fluids (6th edition). F.A. Davis Company.

**Course Coordinator**

Dr. Suzita Mohd. Noor

[suzita@um.edu.my](mailto:suzita@um.edu.my)

03-79674901

**Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



**MIC2006: Bio-risk Management for Biomedical Science (2 credit hours)**

901

**Learning Outcomes**

1. Identify biosafety issues associated with biomedical science laboratories.
2. Describe steps needed to ensure safety in a biomedical science laboratory.
3. Repeat first aid and CPR techniques.

**Course Synopsis**

Biosafety is of upmost importance to a biomedical scientist. Proper techniques are needed to contain any potential harmful actions, chemicals or biological agents. This is to reduce or eliminate exposure of biomedical scientist to these hazards. In the unlikely event of an injury, students need to know the correct procedures to follow.

**Reference Text**

1. Laboratory Biosafety Manual (3rd edition) (2004), World Health Organization, Geneva, USA.
2. Centre of Disease Control and Prevention (2009). Biosafety in Microbiological and Biomedical Laboratories (5th edition). U.S Department of Health and Human Services.
3. Guidelines on the Handling and Management of Clinical Wastes in Malaysia (3rd edition) (2009), Department of Environment, Ministry of Natural Resources and Environment, Malaysia.

**Course Coordinator**

Dr. Bavani Arumugam

[bavani@um.edu.my](mailto:bavani@um.edu.my)

03-79674903

**Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



## MIC2007: Microbial Infections (2 credit hours)

91

### **Learning Outcomes**

1. Describe the fundamentals in clinical microbiology.
2. Discuss the clinical manifestation, diagnosis, treatment and prevention of microbial infections.

### **Course Synopsis**

The course will cover various aspects of bacteriology, mycology and virology, with respect to: general characterization of microbes, method of identification; diseases, epidemiology, pathogenesis, management, outbreak investigation and preventive measures of microbial infections.

### **Reference Text**

1. Karen C. Carroll, Janet S. Butel, Stephen A. Morse. (2015) Jawetz, Melnick, & Adelberg's Medical Microbiology (27th edition). McGraw Hill Education/Medical.

### **Course Coordinator**

Dr. Wong Won Fen

[wonfen@um.edu.my](mailto:wonfen@um.edu.my)

03-79676672

### **Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



**MIC2008: Pathophysiology (3 credit hours)**

92

**Learning Outcomes**

1. Describe mechanisms in disease.
2. Describe the functional changes that occur in disease.
3. Identify normal and pathological samples.

**Course Synopsis**

This course provides the student with basic understanding of pathophysiology in various systems of the human body. Emphasis is given on understanding structures, functions and principles of the human body and the pathological effects of disease.

**Reference Text**

1. Lazenby RB. Handbook of Pathophysiology. 4th Edition, 2011. Wolters Kluwer Health/Lippincott Williams & Wilkins.
2. Pathophysiology Made Incredibly Easy! 2013. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.
3. McCance KL and Huether SE. Study Guide for Pathophysiology: The Biologic Basis for Disease in Adults and Children, 8th Edition, 2018. Elsevier.

**Course Coordinator**

Dr. Chai Hwa Chia

[hccha18@um.edu.my](mailto:hccha18@um.edu.my)

03-79677522

**Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



### **Learning Outcomes**

1. Apply principles relating to basic histological techniques.
2. Perform practical training in basic histological techniques.
3. Apply suitable methods to stain tissue sections.

### **Course Synopsis**

This course introduces the basic principles underlying the processes involved in the preparation of histological sections and staining of tissue sections to demonstrate the normal histology of epithelial and connective tissues. Students are given elementary practical instructions on the processing of tissue specimens and preparation of stained histological sections.

### **Reference Text**

1. Michael H. Ross & Wojciech Pawlina. (2006). Histology (5th Edition). Lippincott Williams & Wilkins.
2. Wolfgang Kuehnel. (2003). Color Atlas of Cytology, Histology and Microscopic Anatomy (4th Edition). Thieme.

### **Additional Texts/Reading Materials**

1. Suvarna, K. S., Layton, C., & Bancroft, J. D. (2018). Bancroft's Theory and Practice of Histological Techniques
2. Orchard, G., & Nation, B. (2017). Histopathology: Oxford University Press.

### **Course Coordinator**

Dr. Tan Soon Hao

[tansoonhao@um.edu.my](mailto:tansoonhao@um.edu.my)

03-79676654

### **Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)



## MIC2010: Immunology for Biomedical Science (3 credit hours)

94

### Learning Outcomes

1. Explain the different types of immune responses.
2. Identify different types of immunological techniques.
3. Describe types of cells and organs of immune system.

### Course Synopsis

The course provides an introduction to the human immune system and the basic principles in immunology. Topics covered include the structure and functions of the immune system, the innate and acquired immune responses, humoral and cell-mediated immune responses, cells of the immune system, immunoglobulins, and complements.

### Reference Text

1. Paul, W. E. (2013). Fundamental Immunology (7<sup>th</sup> Edition). Wolters Kluwer/Lippincott Williams & Wilkins.
2. Abbas, A. K., Lichtman, A. H & Shiv Pillai. (2010). Cellular and Molecular Immunology (6<sup>th</sup> Edition). Saunders Elsevier.

### Course Coordinator

Dr. Kamariah Ibrahim

[Kamariahibrahim2106@um.edu.my](mailto:Kamariahibrahim2106@um.edu.my)

03-79676649

### Course Assessment

Course will be assessed by Continuous Assessment (40%) and a Final Exam (60%)

2019/2020





## MIC2011: Molecular Techniques (3 credit hours)

951

### Learning Outcomes

1. Describe the basic steps in generation of recombinant molecules.
2. Interpret experimental data to draw sound conclusions.
3. Perform basic calculations and experiments to investigate gene sequence and function.

### Course Synopsis

This course addresses developments that have led to the 'New Genetics'. Focus will be placed on terminology, tools and techniques that are essential in the study and creation of recombinant molecules with emphasis on biomedical applications. Components linked to occupational safety and health will also be covered. Practical and basic techniques ranging from plasmid preparations to PCR will be covered.

### Reference Text

1. Micklos, D. A. and Freyer, G.A. (2010). DNA Science: A First Course in Recombinant DNA Technology. Cold Spring Harbor Laboratory Press.
2. Sambrook, J., Fritsch, E. F. & Maniatis, T. (2006). Molecular Cloning: A Laboratory Manual. Cold Spring Harbor Laboratory Press.

### Course Coordinator

Professor Dr. Chua Kek Heng

[khchua@um.edu.my](mailto:khchua@um.edu.my)

03-79676607

### Course Assessment

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



## MIC2012: Research Skills for Biomedical Science (3 credit hours)

96

### **Learning Outcomes**

1. Write a comprehensive literature review with appropriate referencing.
2. Illustrate quantitative and qualitative data.

### **Course Synopsis**

The student will be introduced to the world of biomedical science research and the various tools available to analyse and present the data obtained in a systematic and professional manner. The student will learn the use of reference, document, and presentation software in biomedical science research.

### **Reference Text**

1. Debbie Holmes, Peter Moody & Diana Dine (2011). Research Methods for The Biosciences (2<sup>nd</sup> Edition). Oxford University Press.
2. Ranjit Kumar (2011). Research Methodology: A Step-by-Step Guide for Beginners (3<sup>rd</sup> edition). SAGE Publications.

### **Course Coordinator**

Dr. Anwar Norazit

[anwar.norazit@um.edu.my](mailto:anwar.norazit@um.edu.my)

03-79676649

### **Course Assessment**

Course will be assessed by Continuous Assessment (100%)

2019/2020



## MIC2013: Laboratory Animal Science (3 credit hours)

97

### **Learning Outcomes**

1. Apply basic knowledge in biology and physiology to the handling of commonly used laboratory animals
2. Describe different methods and techniques used in experiments involving animals
3. Discuss ethical and welfare issues with regards to animal experimentation

### **Course Synopsis**

This course is designed to provide facts and instill principles essential to the humane use and care of animals that will in turn ensure the quality of biomedical research. Students will be taught basic animal biology and husbandry, as well as animal handling techniques during experimental procedures. The students' responsibilities towards the welfare of the animals used and the ethical concerns of biomedical research will be emphasised.

### **Reference Texts**

1. Hau, J. & Schapiro, S. J. (2010). Handbook of Laboratory Animal Science, Volume I Essential Principles and Practices (3<sup>rd</sup> Edition). CRC Press.
2. NRC (2011). Guide for the Care and Use of Laboratory Animals (8<sup>th</sup> Edition). The National Academies Press.

### **Course Coordinator**

Dr. Suzita Mohd Noor

[suzita@um.edu.my](mailto:suzita@um.edu.my)

03-79674901

### **Course Assessment**

Course will be assessed by Continuous Assessment (100%)

2019/2020



## MIC2014: Diagnostic Parasitology (3 credit hours)

98

### **Learning Outcomes**

1. Explain the basic concepts and principles of diagnostic parasitology.
2. Describe the basic methods in the diagnosis of parasites in both faeces and blood.
3. Identify the challenges (sensitivity and specificity) faced by the respective diagnostic method for each parasite introduced and to compare with the available conventional diagnostic tools.

### **Course Synopsis**

The course covers various basic aspects of diagnostic techniques of protozoa and helminths. Faecal examination includes direct smear, concentration techniques, egg count, faecal culture and staining methods. Blood examination includes staining and serological diagnosis.

### **Reference Text**

1. C. K. Jayaram Paniker. (2013). Textbook of Medical Parasitology (6<sup>th</sup> Edition). Jaypee.
2. John, D.T. (2006). Markell and Voge's Medical Parasitology (9<sup>th</sup> Edition). WB Saunders Co. Gracia, L.S. (2006). Diagnostic Medical Parasitology (5<sup>th</sup> Edition). ASM Press, Washington DC.

### **Course Coordinator**

Dr. Cheong Fei Wen

[fwcheong18@um.edu.my](mailto:fwcheong18@um.edu.my)

03-79674790

### **Course Assessment**

Course will be assessed by Continuous Assessment (40%) and a Final Exam (60%)

2019/2020



## MIX2002: Behavioural Science (2 credit hours)

991

### Learning Outcomes

1. Clarify the relationship between personality, cultural, social, health, disease as well as patient behavior.
2. Describe the source of pain and stress as well as ways to overcome them
3. Use psychology in handling patients.
4. Prepare assignment conclusion and present clearly in group.

### Course Synopsis

Introduction to psychology. Motivation. Upbringing, life events and health. Social and cultural influence to behaviour. Personality, health and disease. Attitude and diseases. Pain and behaviour. Stress and control. Social support and behaviour. Effect of hospital admissions. Behaviour and special health care. Community health care.

### Reference Text

1. Health Psychology An Introduction to Behaviour and Health, 7th Ed, Linda Brannon, Jess Feist, 2010, Wadsworth.
2. Introduction to Psychology, Atkinson L et al, 1993, Harcourt Brace.
3. Behavioral Science For the Bored, Sierles F S, 1993, McGraw Hill.
4. The Doctor, His Patient And The Illness, Balint M, 1995, Churchill Livingstone.
5. Health Psychology, Niven N, 1990, Churchill Livingstone.

### Course Coordinator

Prof. Madya Dr. Zahari bin Ishak  
[irahaz@um.edu.my](mailto:irahaz@um.edu.my)

### Course Assessment

Course will be assessed by Continuous Assessment (40%) and a Final Exam (60%)

2019/2020



**MIC2015: Biomedical Laboratory Posting (3 credit hours)**

100

**Learning Outcomes**

1. Recognise the work flow in a clinical laboratory
2. Follow assigned tasks in an assigned clinical laboratory.
3. Perform duties in an assigned clinical laboratory.

**Course Synopsis**

The student will be assigned to a clinical laboratory for eight weeks. He/she will observe the workflow and duties in the laboratory and carry out laboratory tests as determined by the laboratory supervisor. The student will learn how the clinical laboratory is effectively managed.

**Reference Texts**

As given by the laboratory supervisor/laboratory manager.

**Course Coordinator**

Dr. Ong Kien Chai  
[kcong@um.edu.my](mailto:kcong@um.edu.my)  
03-79674799

2019/2020



### **Learning Outcomes**

1. Apply critical thinking in problem solving and decision making.
2. Criticize between facts and fallacies.
3. Summarise conclusions based on well-supported arguments.

### **Course Synopsis**

This course will allow students to develop critical thinking skills through assessment of information, unbiased interpretation and recognition of different sides in arguments.

### **Reference Text**

1. Butterworth, J., & Thwaites, G. (2016). Thinking skills: Critical Thinking and Problem Solving. Cambridge: Cambridge University Press.
2. Cottrell, S. (2017). Critical Thinking Skills: Developing Effective Analysis and Argument. Basingstoke, Hampshire: Palgrave Macmillan.
3. Inch, E. S., & Tudor, K. H. (2015). Critical Thinking and Communication: The Use of Reason in Argument. Boston: Pearson.
4. Nardi, P. M. (2017). Critical Thinking: Tools for Evaluating Research. Oakland, CA: University of California Press.

### **Course Coordinator**

Dr. Bavani Arumugam  
[bavani@um.edu.my](mailto:bavani@um.edu.my)  
03-79674903

### **Course Assessment**

Course will be assessed by Continuous Assessment (100%)





## MIC3002: Fundamental Hematology (3 credit hours)

102

### **Learning Outcomes**

1. Describe types of blood cells and the process of haematopoiesis.
2. Infer haematological and immunological concepts to blood pathology and transfusion medicine.
3. Apply basic theory and practical knowledge to haematological tests and blood transfusion techniques.

### **Course Synopsis**

This course introduces students to blood disorders, haemostasis, and their laboratory investigations. Basic concepts and principles pertaining to blood transfusion and aphaeresis services will also be taught. The practical component of this course focuses on basic techniques used in routine haematology and blood transfusion laboratories

### **Reference Text**

1. Hoffbrand, V., & Moss, P. (2011). Essential Haematology (6<sup>th</sup> Edition). Wiley-Blackwell.
2. Bain, B., Bates, I., Laffan, M. A. & Lewis, S. M. (2012). Practical Haematology (11<sup>th</sup> Edition). Churchill Livingstone.
3. Rudmann, S. V. (2005). Textbook of Blood Banking and Transfusion Medicine (2<sup>nd</sup> Edition). Saunders.

### **Course Coordinator**

Dr. Kamariah Ibrahim

[Kamariahibrahim2016@um.edu.my](mailto:Kamariahibrahim2016@um.edu.my)

03-79676649

### **Course Assessment**

Course will be assessed by Continuous Assessment (50%) and a Final Exam (50%)

2019/2020



**MIC3003: Applied Anatomic Pathology (3 credit hours)**

103

**Learning Outcomes**

1. Describe principles of techniques employed in Anatomic Pathology.
2. Perform consistent staining of slides for diagnosis.
3. Explain new technologies in Anatomic Pathology.

**Course Synopsis**

1. Students will be taught the scientific basis of standard tissue processing methods and staining techniques and the common artifacts encountered due to inappropriate handling of tissues and tissue sections.
2. Practical sessions provide hands-on experience as well as allow the study of the effects of improper tissue handling and processing.
3. Special stains techniques.
4. Immunohistochemistry, *in situ* hybridisation, microwave technology, electron microscopy, immunofluorescence, special histochemistry.
5. New technologies in Anatomic Pathology

**Reference Text**

1. Bancroft, J. D. & Cook, H. C. (2008). Manual of Histological Techniques & Their Diagnostic Application (6<sup>th</sup> Edition). Churchill Livingstone.

**Course Coordinator**

Dr. Ong Kien Chai  
[kcong@um.edu.my](mailto:kcong@um.edu.my)  
03-79674799

**Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



## MIC3004: Cytology for Biomedical Science (3 credit hours)

104

### Learning Outcomes

1. Distinguish the difference between normal and abnormal tissues.
2. Discuss the pathogenesis of tumor and cancer.
3. Describe the staging procedures associated with tumors and cancers.

### Course Synopsis

This course introduces cytology of normal cells, the changes that occur in benign, pre-malignant and malignant processes. In laboratory sessions students will learn and apply the basic principles of cyto-preparation using established preparatory techniques. Students learn, develop and gradually acquire accuracy in using the light microscope for the purpose of detecting and diagnosing specimens for cytological evaluation.

### Reference Text

1. Cibas, E. S. & Ducatman, B. S. (2014). Cytology: Diagnostic Principles and Clinical Correlates. (4<sup>th</sup> Edition). Elsevier Saunders.
2. DeMay, R. M. (2007). Practical Principles of Cytopathology (Revised Edition). American Society for Clinical Pathology Press.
3. Solomon, D. & Ritu Nayar. (2004). The Bethesda System for Reporting Cervical Cytology: Definitions, Criteria, and Explanatory Notes. (2<sup>nd</sup> Edition). Springer.

### Course Coordinator

Dr. Ong Kien Chai  
[kcong@um.edu.my](mailto:kcong@um.edu.my)  
03-79674799

### Course Assessment

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



**MIC3005: Advanced Medical Bacteriology and Mycology (2 credit hours)**

105

**Learning Outcomes**

1. Distinguish the fundamental principles of bacteriology and mycology.
2. Recognise bacteria and fungi of medical importance.
3. Explain the current trends of antibiotic resistance and emerging infectious diseases.

**Course Synopsis**

The course will cover bacterial classification, physiology, growth, virulence factors, bacterial pathogenesis, mechanisms of resistance to antibiotics, host defenses against infections and microbes of public health concern.

**Reference Text**

1. Goering, R., Dockrell, H., Zuckerman, M., Roitt, I., & Peter L. C. (2012). Mims' Medical Microbiology, Updated Edition: with Student Consult Online. (5<sup>th</sup> Edition). Elsevier.
2. Brooks, G. F., Carroll, K. C., Butel, J. S., Morse, S. A., & Mietzner, T. A. (2012). Jawetz, Melnick and Adelberg's Medical Microbiology. (26<sup>th</sup> Edition). McGraw-Hill Professional.
3. Warren Levinson. (2012). Review of Medical Microbiology and Immunology. (12<sup>th</sup> Edition). McGraw-Hill Professional

**Additional Texts/Reading Materials**

1. Kumar, R. (2011). Research Methodology: A Step-by-Step Guide for Beginners. SAGE Publications, 3<sup>rd</sup> edition

**Course Coordinator**

Dr. Cindy Teh Shuan Ju  
[cindysjteh@um.edu.my](mailto:cindysjteh@um.edu.my)  
03-79676660/6661

**Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



**MIC3006: Blood Transfusion Technology (3 credit hours)**

106 |

**Learning Outcomes**

1. Describe the basic principles of immunohaematology and blood transfusion.
2. Perform the basic techniques applicable in blood transfusion technology.
3. Explain the importance of safe pre-transfusion techniques to ensure the reliability of blood products and blood transfusions.

**Course Synopsis**

This course provides students with the basic concepts and principles pertaining to blood transfusion technology. The practical component of this course focuses on routine techniques used in blood transfusion laboratories.

**Reference Text**

1. Shaz, B.H., Hillyer, C. D., Roshal, M. & Abrams, C. S. (2013). Transfusion Medicine and Hemostasis: Clinical and Laboratory Aspects (2<sup>nd</sup> Edition). Elsevier.
2. Janey, K. D. & Howard, P. R. (2013). Basic & Applied Concepts of Blood Banking and Transfusion Practices (3<sup>rd</sup> Edition). Elsevier Mosby.
3. Harmening, D. M. (2012). Modern Blood Banking & Transfusion Practices (6<sup>th</sup> Edition). F.A. Davis Company. B.W.J. Mahy and Marc H.V. van Regenmortel (2008) Encyclopedia of Virology. Academic Press, 3<sup>rd</sup> edition.

**Course Coordinator**

Dr. Kamariah Ibrahim

[kamariahbrahim@um.edu.my](mailto:kamariahbrahim@um.edu.my)

03-79676649

**Course Assessment**

Course will be assessed by Continuous Assessment (50%) and a Final Exam (50%)

2019/2020



## MIC3007: Cancer Biology (3 credit hours)

107

### Learning Outcomes

1. State the molecular basis of cancer initiation and progression.
2. Distinguish the biology and main characteristics of cancer cells compared to normal cells.
3. Demonstrate knowledge of the current techniques and relevant databases applicable in cancer research

### Course Synopsis

The course provides an in-depth understanding of the molecular basis of cancer initiation and progression, the different types and classification of various cancers and also the roles played by tumour suppressors and oncogenes. Various genetic and cellular changes leading to tumourigenesis will be discussed as well as the techniques used commonly in cancer research.

### Reference Text

1. Weinberg R. The Biology of Cancer. 2nd Edition, 2014. Garland Publishing.
2. Pecorino L. Molecular Biology of Cancer: Mechanisms, Targets, and Therapeutics. 4th Edition, 2016. Oxford University Press
3. King RJB and Robins MK. Cancer Biology. 3rd Edition, 2006. Pearson Prentice Hall.

### Course Coordinator

Dr. Chai Hwa Chia

[hccha18@um.edu.my](mailto:hccha18@um.edu.my)

603-79678857

### Course Assessment

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



## MIX3002: Smoking Cessation Program (2 credit hours)

1081

### **Learning Outcomes**

1. Identify the health hazards of smoking, the benefits, challenges, pharmacotherapies and aiding tools in helping smokers to quit smoking
2. Explain the importance of promoting smoking cessation in healthcare delivery.
3. Differentiate various types of quitting methods for smokers with various stages of readiness to quit smoking, and/or their nicotine dependence.
4. Plan a few strategies of interventions to promote smoking cessation.

### **Course Synopsis**

Students will be introduced in an integrated manner to smoking cessation program that includes knowledge about the dangers of smoking to health, pharmacotherapy, aid tools and behavior change approaches. Students will be able to design intervention strategies for promoting smoking cessation.

### **Reference Text**

- 1) How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis For Smoking-Attributable Disease: A Report of The Surgeon General. (2010). Rockville, MD: Dept. of Health and Human Services, Public Health Service, Office of Surgeon General.
- 2) Fiore MC, Jaén CR, Baker TB, Et Al. Treating Tobacco Use and Dependence: 2008 Update. Clinical Practice Guideline. (2008). Rockville, MD: U.S. Department of Health And Human Services. Public Health Service.
- 3) Arcangelo, VP, & Peterson AM (2013). Pharmacotherapeutics for Advanced Practice: A Practical Approach. Lippincott Williams & Wilkins, 3rd Edition, P 839-854.

### **Course Coordinator**

Dr. Gareth Sim Maw Shin  
[garethsim@um.edu.my](mailto:garethsim@um.edu.my)

### **Course Assessment**

Course will be assessed by Continuous Assessment (100%)

2019/2020



YEAR 3 SEMESTER II (2021/2022)

**MIC3008: Chemical Pathology (4 credit hours)**

**Learning Outcomes**

1. Describe metabolic disorders and clinical laboratory investigations of major organ systems.
2. Determine techniques and methods for laboratory and equipment evaluation.
3. Interpret laboratory test results.
4. Apply the principles and techniques in organisation and laboratory management.

**Course Synopsis**

This course introduces suitable laboratory assessment methods for the clinical diagnosis of several pathological conditions. Emphasis is given on biochemical aspects of nutrition, disorders of thyroid, pituitary, adrenal, ovarian, testicular and renal hormones; the use of tumour markers, bone markers and cardiac markers; abnormalities in protein, lipid and carbohydrate metabolism; and the respective biochemical tests in laboratory investigation of these disorders.

This course also provides practical exposure for selection and evaluation of methods and laboratory equipment. Emphasis is placed on the principles of organisation and laboratory management - quality control, work flow, and general laboratory management.

**Reference Texts**

1. Burtis, C. A., Ashwood, E. R. & Bruns, D. E. (2012). Tietz Textbook of Clinical Chemistry and Molecular Diagnostics (5<sup>th</sup> Edition). Saunders.
2. Bishop, M. L., Fody, E. P. & Schoef, L. E. (2013). Clinical Chemistry: Principles, Procedures, Correlations (7<sup>th</sup> Edition). Lippincott Williams & Wilkins.

**Course Coordinators**

Dr. Rozaida Poh Yuen Ying  
[rozaiday@um.edu.my](mailto:rozaiday@um.edu.my)  
03-79676611

**Course Assessment**

Course will be assessed by Continuous Assessment (70%) and a Final Exam (30%)





**MIC3009: Ethical Practices in Biomedical Science (3 credit hours)**

1101

**Learning Outcomes**

1. Explain core ethical principles from a biomedical science perspective.
2. Identify core ethical principles relating to research in biomedicine.
3. Interpret ethical issues relating to research and publications.
4. Infer ethical issues related to diagnosis of genetic disorders and genetic counselling.
5. Summarise ethical issues related to animal experimentation.

**Course Synopsis**

Students will learn about ethical principles related to biomedical science. The students will have the opportunity to learn about the ethical issues that arise from many aspects of biomedical science and research, and will have the opportunity to give their opinions about the subject matters.

**Reference Text**

1. Wiles, R. (2013). What are qualitative research ethics? London: Bloomsbury Academic.
2. Oliver, P. (2010). The student's guide to research ethics. McGrawHill Open University Press
3. Beauchamp, T. & Childress, J. F. (2013). Principles of Biomedical Ethics (7th edition). Oxford University Press.

**Course Coordinator**

Dr. Bavani Arumugam

[bavani@um.edu.my](mailto:bavani@um.edu.my)

603-79674903

**Course Assessment**

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



## MIC3010: Advances in Medical Pharmacology (3 credit hours)

111

### Learning Outcomes

1. Describe mechanisms of action of drugs, their pharmacokinetics and adverse effects.
2. Identify and relate the pharmacological actions of drugs to their uses in specific diseases.
3. Interpret concepts and techniques in classical pharmacology research, clinical trials, GCMS, HPLC, design & evaluation of clinical trials, pharmacoequivalent studies and pharmacogenomics.

### Course Synopsis

The course focuses on:

1. Time course of drug effects.
2. Techniques in GCMS, HPLC, bioequivalence studies and pharmacogenomics.
3. Introduction to antisense and gene therapy.
4. Design & evaluation of clinical trials.
5. The pharmacology of drugs acting on the gastrointestinal, respiratory, cardiovascular and central nervous systems.
6. Experiments on drugs with analgesic properties, drugs affecting respiratory system and general evaluation of toxicity of drugs /substances in animals.

### Reference Texts

1. Rang, H. P., Dale, M. M., Ritter, J. M., Flower, R. J. & Henderson, G. (2016). Rang and Dale's Pharmacology (8<sup>th</sup> Edition). Elsevier Churchill Livingstone.
2. Katzung, B., Masters, S. & Trevor, A. (2015). Basic and Clinical Pharmacology (13<sup>th</sup> Edition). McGraw Hill Professional.
3. Harvey, R. A. (2015). Lippincott's Illustrated Reviews: PHARMACOLOGY (6<sup>th</sup> Edition). Lippincott William & Wilkins

### Course Coordinator

Dr. Zaridatul Aini Ibrahim  
[zaridatulaini@um.edu.my](mailto:zaridatulaini@um.edu.my)  
03-79675727

### Course Assessment

Course will be assessed by Continuous Assessment (40%) and a Final Exam (60%)

2019/2020



## MIC3011: Advances in Medical Virology (2 credit hours)

112

### Learning Outcomes

1. Distinguish the basic features of common pathogenic human viruses.
2. Determine how viruses replicate and are transmitted to human.
3. Explain the concepts for treatment, prevention and control of virus infection.

### Course Synopsis

This course emphasises virology and important viruses for human diseases. Emphasis is given on the important key features of viruses, their structure, replication characteristics, pathogenesis, laboratory identification, treatment and prevention measures.

### Reference Text

1. Ryan, K. J. & Ray, C. G. (2003). *Sherris Medical Microbiology. An Introduction to Infectious Diseases*. (4<sup>th</sup> Edition). McGraw Hill Professional.
2. Knipe, D. M. & Howley, P. M. (2013). *Fields Virology*. (6<sup>th</sup> Edition). Lippincott Williams & Wilkins.

### Additional Texts/Reading Materials

1. Costanzo L. S. (2007) *Physiology*. Lippincott & Williams, Philadelphia; 4<sup>th</sup> edition.
2. Vander A., Sherman J. & Luciano D. (2001) *Human Physiology*. McGraw Hill 8<sup>th</sup> edition.

### Course Coordinator

Dr. Tee Kok Keng  
[K2tee@um.edu.my](mailto:K2tee@um.edu.my)  
03-79676660

### Course Assessment

Course will be assessed by Continuous Assessment (60%) and a Final Exam (40%)

2019/2020



## MIC3012: Advanced Diagnostic Parasitology (3 credit hours)

113

### Learning Outcomes

1. Identify strategies of diagnosis in parasitic infections.
2. Describe the recent concepts in the transmission of parasites.
3. Apply basic principles in parasitology with regards to problems in parasitic infections.
4. Analyse experimental data of parasitic infection.
5. Explain the epidemiological methods used to identify parasitic infections in a human community.

### Course Synopsis

The course covers aspects of maintenance of protozoa and helminth *in vivo* and cultivation of protozoa and helminth *in vitro*. Included are various diagnostic techniques as in culture of parasites, immunodiagnostic tests and techniques in molecular parasitology.

### Reference Text

1. Hanes and Higgins. (1987). Nucleic Acid Hybridization: A Practical Approach. IRL Press, Oxford.
2. Service, M. (2012). Medical Entomology for Students (5<sup>th</sup> Edition). Cambridge University Press.
3. Ash, L. R. & Orihel, T. C. (2007). Ash & Orihel's Atlas of Human Parasitology (5<sup>th</sup> Edition). American Society of Clinical Pathologist Press.

### Course Coordinator

Dr. Cheong Fei Wen

[fwcheong18@um.edu.my](mailto:fwcheong18@um.edu.my)

03-79674790

### Course Assessment

Course will be assessed by Continuous Assessment (40%) and a Final Exam (60%)

2019/2020



### **Learning Outcomes**

1. Conduct relevant literature search for the research.
2. Interpret findings from the literature search to design experimental protocols.
3. Present the research proposal.
4. Apply research methods and protocols in a scientific project.
5. Perform experiments to obtain data.
6. Analyse results from the research project using appropriate analysis tools.

### **Course Synopsis**

This course exposes the students to scientific research techniques, starting with analysing published research relevant to the research project. The course teaches the students to collate data from published manuscripts, interpret the results and how to put it into context for their own projects. The student will begin to perform experiments independently. A proposal presentation and log book are compulsory components of the course. This course preceeds MIC4005 Research in Biomedical Science semester 2.

### **References**

Current scientific papers, individual laboratory protocols

### **Course Coordinator**

Dr. Azlina Ahmad Annuar  
[azlina\\_aa@um.edu.my](mailto:azlina_aa@um.edu.my)  
03-79674948

### **Course Assessment**

Continuous assessment (100%) –proposal presentation, log book and supervisor's evaluation.



## MIC4004: Diagnostic Bacteriology and Mycology (3 credit hours)

115

### Learning Outcomes

1. Perform the correct microbiological techniques to isolate bacteria and fungi from clinical specimens.
2. Perform microbiological tests (including biochemical, serological, and antibiotic susceptibility tests).
3. Interpret microbiological test results to identify significant bacteria and fungi isolated from clinical specimens; and differentiate them from normal flora.
4. Apply basic principles of quality assurance and quality control in the daily activities of a diagnostic microbiology laboratory.
5. Describe basic principles, techniques, and results of molecular diagnostic methods (e.g. PCR) used in microbial identification.

### Course Synopsis

The course consists of postings at the Diagnostic Bacteriology Unit, Diagnostic Mycobacteriology Unit, and the Diagnostic Mycology Unit, as well as laboratory training on practical skills and tutorials. Continuous assessment will consist of practical and OSPE exams as well as laboratory reports. Final examination will consist of practical and OSPE exams.

### References

1. Patricia M. Tiles, Bailey and Scott's Diagnostic Microbiology. 14th Edition. Elsevier. 2017.
2. KP Ng, TS Soo-Hoon, SL Na. A Guide to the Study of Basic Medical Mycology.

### Course Coordinator

Dr. Tang Soo Nee

[tang.soonee@ummc.edu.my](mailto:tang.soonee@ummc.edu.my)

03-79496654

### Course Assessment

Course will be assessed by Continuous assessment (40%) and a final exam (60%)

2019/2020



**MIC4007: Neuroscience (3 credit hours)**

116

**Learning Outcomes**

1. Describe the nervous system network.
2. Identify the structure and function of the nervous system.
3. Recognise the integrated mechanism between structure and molecules that give rise to differences in brain function.
4. Apply the knowledge about neuronal mechanisms to neurological diseases.

**Course Synopsis**

This course offers the students the chance to learn about the nervous system. Students will learn about the different systems that control thoughts and behaviour, senses and movement. Emphasis will be on an experimental approach to understand the various functions.

**References**

1. Kandel, E., & et. al. (2013). Principles of Neural Science (5<sup>th</sup> Edition). McGraw Hill Professional.
2. Nicholls, J. G. & et. al. (2012). From Neuron to Brain: Cellular and Molecular Approach to the Function of the Nervous System (5<sup>th</sup> Edition). Sinauer Associates.

**Course Coordinator**

Dr. Azlina Ahmad Annuar  
[azlina\\_aa@um.edu.my](mailto:azlina_aa@um.edu.my)  
03-79674948

**Course Assessment**

Course will be assessed by Continuous assessment (40%) and a final exam (60%)

2019/2020



**YEAR 4 SEMESTER II (2022/2023)**

**MIC4002: Biomedical Science Horizons (3 credit hours)**

117

**Learning Outcomes**

1. Define the different areas of current and up-and-coming research in Malaysia and internationally.
2. Explain the scientific aspects of the topics presented.
3. Express their opinions on topics related to biomedical science to other scientists and the public.

**Course Synopsis**

This course aims to introduce students to the current issues in biomedical science, new technologies and areas of research, while focusing on areas of potential research in the future. It also allows the students to meet and share with a range of scientists and professionals who are involved in a wide range of biomedical science.

**References**

Newspaper articles, current scientific papers, online resources

**Course Coordinator**

Dr. Looi Mee Lee

[meelee.looi@um.edu.my](mailto:meelee.looi@um.edu.my)

03-79679192

**Course Assessment**

Course will be assessed by Continuous assessment (70%) and a final exam (30%)

2019/2020





## MIC4003: Advanced Human Physiology (3 credit hours)

118

### Learning Outcomes

1. Interpret physiological advanced knowledge in various fields.
2. Apply knowledge of advanced physiology in planning for the seminar.
3. Report on topics of current research.

### Course Synopsis

Students will be exposed to the advanced physiological systems in the human body to enhance their interest in scientific research.

### References

1. Barrett KE, et al. (2012). Ganong's Review of Medical Physiology (24<sup>th</sup> edition). McGraw Hill.
2. Any related scientific journals.
3. Widmaier E, et al. (2013). Vander's Human Physiology: The Mechanism of Body Functions (13<sup>th</sup> edition). McGraw Hill.

### Course Coordinator

Prof. Dr. Naguib Salleh  
[naguibsalleh@um.edu.my](mailto:naguibsalleh@um.edu.my)  
03-79677532

### Course Assessment

Course will be assessed by Continuous assessment (50%) and a final exam (50%)

2019/2020



## MIC4005: Research in Biomedical Science (6 credit hours)

119

### Learning Outcomes

1. Apply research methods and protocols in a scientific project.
2. Perform experiments to obtain data.
3. Analyse results from the research project using appropriate analysis tools.
4. Interpret results in context of published literature.
5. Report results in an oral presentation and thesis.

### Course Synopsis

This course must be taken directly after MIC4001 Research Design in Biomedical Science in semester 1. The students will continue to have the opportunity to spend a significant amount of time in research labs, learning scientific research techniques. Following on from MIC4001, in this semester, students will be expected to conduct research with some guidance but quite independently. The course trains the students to collect and collate data, and interpret the results. An oral presentation and written thesis are compulsory components of the course.

### References

Current scientific papers, individual laboratory protocols

### Course Coordinator

Dr. Azlina Ahmad Annuar

[azlina\\_aa@um.edu.my](mailto:azlina_aa@um.edu.my)

03-79674948

### Course Assessment

Course will be assessed by Continuous Assessment (100%) - Oral presentation, writing thesis, Supervisor's evaluation.

2019/2020



**MIC4006: Laboratory Management and Quality Control (3 credit hours)**

120

**Learning Outcomes**

1. Identify principles of quality control.
2. Study quality assurance procedures performed in a diagnostic laboratory.
3. Interpret the stages of quality management required in diagnostic laboratories.

**Course Synopsis**

This course describes the stages of quality control, quality assurance, quality system and quality management. Examples of total quality framework include quality planning, quality laboratory processes, quality control, quality assurance and quality improvement.

**References**

1. Kenneth N. Parson (2012). Laboratory Quality/Management (3<sup>rd</sup> Edition). Xlibris Corporation.
2. Harmening, D. M. (2012). Laboratory Management: Principles and Processes (3<sup>rd</sup> Edition). D.H. Pub .& Consulting.

**Course Coordinator**

Dr. Looi Mee Lee

[meelee.looi@um.edu.my](mailto:meelee.looi@um.edu.my)

03-79679192

**Course Assessment**

Course will be assessed by Continuous assessment (60%) and a final exam (40%)

2019/2020



**MIC4008: Applied Phlebotomy (2 credit hours)**

121

**Learning Outcomes**

1. Determine the correct sites, equipment, procedures and techniques for collection and handling of blood specimens.
2. Complete the collection and handling of blood specimens correctly, skilfully, and safely.
3. Initiate appropriate methods to troubleshoot problems during clinical specimen collection and handling.

**Course Synopsis**

The student will allow the student to apply the theoretical and practical knowhow obtained from the MBEB 4108 course on Phlebotomy. The student will be given the responsibility of drawing and handling blood specimens from patients at the UMMC, according to assigned requests. The student will set a high professional standard during these assigned phlebotomy duties.

**References**

1. McCall, R. E. (2011) Phlebotomy Essentials (5th edition). Lippincott Williams & Wilkins.
2. Ernst, D.J. (2005) Applied Phlebotomy (1st edition). Lippincott Williams & Wilkins.

**Course Coordinator**

Dr. Suzita Mohd. Noor  
[suzita@um.edu.my](mailto:suzita@um.edu.my)  
03-79674901

**Course Assessment**

Course will be assessed by Continuous assessment (100%)

2019/2020



**MIC4009: DNA Cloning in Biomedical Science (3 credit hours)**

122

**Learning Outcomes**

1. Apply molecular engineering techniques and methods.
2. Interpret the data obtained from experiments.
3. Perform DNA cloning techniques, procedures in the laboratory.

**Course Synopsis**

This course allows students to gain skills in molecular cloning techniques in creating potential recombinant clones for the purpose of vaccines and drugs production. It includes the techniques of isolating genomic DNA especially from bacteria, partially genomic RE techniques, competent cells preparation, techniques in direct selection of positive recombinant clones and their characterization.

**References**

1. Brown, T. A. (2015) Gene Cloning and DNA analysis (7th edition). Blackwell Publishing.
2. McLenna, A. G., Bates, A. D., Turner, P. C., White, M. R. H. (2012) BIOS Instant Notes in Molecular Biology (4th edition). Taylor & Francis.

**Course Coordinator**

Dr. Kee Boon Pin  
[bpkee@um.edu.my](mailto:bpkee@um.edu.my)  
03-79676601

**Course Assessment**

Course will be assessed by Continuous assessment (100%)

2019/2020



## MIC4010: Diagnostic Virology (3 credit hours)

123

### **Learning Outcomes**

1. Report pathogenic viruses using specific laboratory techniques.
2. Apply suitable laboratory tests for the diagnosis of pathogenic viruses.
3. Interpret laboratory results for the diagnosis of pathogenic viruses.

### **Course Synopsis**

The course consists of laboratory postings to specific microbiology diagnostic units, i.e. General Virology & Serology, and Molecular Diagnostics. Emphasis will be placed on advanced laboratory diagnostic methods, and their relevance to clinical practice.

### **References**

1. Sherris Medical Microbiology. An Introduction to Infectious Diseases. Ryan. Ed. Appleton & Lange.
2. Fundamental Virology. Fieldset et., Eds. Lippincott-Raven Publishers.

### **Course Coordinator**

Dr. Chandramathi Samudi Raju

[chandramathi@um.edu.my](mailto:chandramathi@um.edu.my)

014-3185759

### **Course Assessment**

Course will be assessed by Continuous assessment (60%) and a final exam (40%)

2019/2020



## MIX4001: Introduction to Qualitative Research (3 credit hours)

124

### **Learning Outcomes**

1. Explain the qualitative research process.
2. Identify the various qualitative research design.
3. Explain qualitative data collection and data analysis.
4. Explain strategies to ensure rigor in qualitative data.

### **Course Synopsis**

This course will focused on qualitative research approaches. Topics will include various qualitative research approaches and other methods related to qualitative data collection and data analysis.

### **References**

1. Creswell, J.W. (2009) Research Design: Qualitative, Quantitative and Mixed Methods Approaches. 3rd edition. Sage. Thousand Oaks.
2. Creswell, J.W. (2010) Qualitative Inquiry & Research Design. 4th Edition Sage. Thousand Oaks.
3. Munhall, L.M. (2010) Nursing Research ; a Qualitative Perspective. (3rd edition). Jones and Bartlett Publishers: Sudbury.
4. Pope, C., Mays, N & Popay, J. (2010) Synthesizing Qualitative and Quantitative Health Evidence. Open University Press. Maidenhead
5. Ritchie, J. & Lewis, J. (2012) Qualitative Research Practice. Sage Publications: London.

### **Course Coordinator**

Lecturers from FOM

### **Course Assessment**

Course will be assessed by Continuous assessment (40%) and a final exam (60%)

2019/2020



YEAR 4 SPECIAL SEMESTER (2022/2023)

**MIC4011: Industrial Posting (3 credit hours)**

125

**Learning Outcomes**

1. Follow work flow in laboratory/industry.
2. Apply knowledge learned to required tasks.
3. Perform assigned tasks.

**Course Synopsis**

Students will carry out duties in their chosen laboratory/industry within the Klang Valley or Putrajaya only for eight weeks. They will perform duties according to established work flow.

**References**

As given by the laboratory supervisor/laboratory manager

**Course Coordinator**

Dr. Chai Hwa Chia

[hccha18@um.edu.my](mailto:hccha18@um.edu.my)

603-79677522

2019/2020





**2019/2020**

**UNDERGRADUATE  
GUIDEBOOK**

---

**Faculty of Medicine**

**NURSING  
SCIENCE**



## ***Message from Head of Department***

Congratulations and welcome to the Bachelor in Nursing Science programme, offered by the Department of Nursing Science, Faculty of Medicine, and University of Malaya.

You have chosen a career with extraordinary potential and rewards. The current shortage of nurses has brought public awareness that there is simply no substitute for a nurse. Nurses are now recognized and prioritized as an essential part of the healthcare system in ensuring health and wellbeing of the society worldwide. And you have chosen a department where nurse education is at its best.

At the Department, we prepare students to become a knowledgeable graduate nurses who will apply effective, ethical and safe nursing knowledge in providing nursing care to patients and in contributing to the advancement of health care and nursing profession. The research-intensive environment in University of Malaya with its full range of academic disciplines provides an exceptional environment for tertiary education in nursing.

We hope your educational experience here will be personally satisfying, as well as professionally stimulating and challenging. This handbook was created to assist you with your transition to graduate studies by providing a quick source of information that previous students have found to be useful. It will provide guidance in the aims, academic structure and contents, academic services and what is expected of you.

We realize that the choice to seek graduate study represents a significant commitment on your part and we hope that your experience here will meet your expectations. I encourage you to optimize the learning potentials provided by your mentors, peers, academic staff of other discipline and the rich resources available to you through the University.

The academic advisor will assist you with your academic planning, but the entire Department and staff stands ready to answer your questions and cheer you on, as well. We look forward to a great team effort!

**Chong Mei Chan**  
**Acting Head**  
**Department of Nursing Science**



## ACADEMIC STAFF

### HEAD OF DEPARTMENT



**Dr. Chong Mei Chan**

SRN, SCM, BNSc (Hons)(Mal), MSc (Health Com.)(Mal), PhD(Nursing)(AU)

Email : [mcchong@um.edu.my](mailto:mcchong@um.edu.my)

Tel: +603-7949 3675

## PROFFESOR



**Prof. Dr. Khatijah Lim Abdullah**

SRN, SCM, CCN (Neonatal), BSc (Hons) in Nsg (UK), MSc (Health Service Mgt.) (UK), Doctorate in Clinical Practice (Nsg) (UK)

Email: [katlim@um.edu.my](mailto:katlim@um.edu.my)

Tel: +603-7949 3732



## SENIOR LECTURERS

129



**Dr. Vimala Ramoo**

SRN, CCN, BNSc (Hons) (Mal), MEd (Planning & Admin.) (Mal), PhD (Mal)  
Email: [vimala@ummc.edu.my](mailto:vimala@ummc.edu.my)  
Tel: +603-7949 2028



**Dr. Chui Ping Lei**

SRN, ET Nursing, BNSc (Hons)(Mal),  
MMedSc(Mal), PhD (Mal)  
Email: [plchui@ummc.edu.my](mailto:plchui@ummc.edu.my)  
Tel: +603-7949 3677

## SENIOR LECTURERS



**Dr. Tang Li Yoong**

SRN, CCN, BNSc (Hons)(Mal),  
MN (Renal)(AU), PhD(Mal)  
Email: [lytang@ummc.edu.my](mailto:lytang@ummc.edu.my)  
Tel: +603-7949 3646



**Dr. Lee Wan Ling**

SRN, CCN, BNSc (Hons)(Mal),  
MNSc (Mal), PhD(Mal)  
Email: [wlee@um.edu.my](mailto:wlee@um.edu.my)  
+603-7949 3751

2019/2020



## LECTURERS



**Norsiah Rahmat**

SRN, SCM, Dip Adv Nsg (Teaching), BNSc (Hons) (Mal), MMedSc (PH)(Mal)  
Email: [norsiahr@um.edu.my](mailto:norsiahr@um.edu.my)  
Tel: +603-7949 3644



**Nor Aziyan Yahaya**

SRN, Oncology, Cert (Teaching), BNSc (Hons) (Mal), MNSc (Mal)  
Email: [aziyan@ummc.edu.my](mailto:aziyan@ummc.edu.my)  
Tel: +603-7949 3677

## LECTURERS



**Kavitha Rasaiah**

SRN, CCN, BNSc (Hons)(Mal), MEd(Curriculum Development)(Mal)  
Email: [lashia@um.edu.my](mailto:lashia@um.edu.my)  
Tel: +603-7949 3645



**Lai Lee Lee**

SRN, AdvDipNsg(Perioperative), BNSc(Mal), MMedSc(Mal)  
Email: [lail@um.edu.my](mailto:lail@um.edu.my)  
Tel: +603-7949 3745



## LECTURERS

131



**Nor Zehan Ahmad**

SRN, Cert (Teaching), BNSc (Mal), MNSc (Mal)  
Email: [norzehan@um.edu.my](mailto:norzehan@um.edu.my)  
Tel: +603-7949 2694



**Noor Hanita Zaini**

SRN, Cert (Teaching), BNsg (Mal), MNSc (Mal)  
Email: [noorhanita@um.edu.my](mailto:noorhanita@um.edu.my)  
Tel: +603-7949 2694

## NURSE TUTOR



**Roslina Zakaria**

SRN, AdvDipNsg (Perioperative), BNSc(Hons) (UK)  
Email: [roszmusa@um.edu.my](mailto:roszmusa@um.edu.my)  
Tel: +603-7949 3749

2019/2020



## ADMINISTRATIVE STAFF

132



**Fauziah Abdul Bab**  
Email: [geepu3@um.edu.my](mailto:geepu3@um.edu.my)  
Tel: +603-7949 2806



**Ros Shuhaida Abdul Manaf**  
Email: [ros\\_shuhaida@um.edu.my](mailto:ros_shuhaida@um.edu.my)  
Tel: +603-7949 2806



**Mohd Azli Mahadi**  
Email: [azllyiella@um.edu.my](mailto:azllyiella@um.edu.my)  
Tel: +603-7949 2806

2019/2020



# INTRODUCTION

The Bachelor of Nursing Sciences programme is offered by the Department of Nursing Sciences, Faculty of Medicine. Department of Nursing Science was first established in 1993 as a Nursing Science unit under the Department of Allied Health Sciences. It was the first nursing unit to recognize the importance of baccalaureate education in nursing and became the pioneer in the transition in the nursing education program by upgrading nursing education from a diploma to a graduate program, Bachelor of Nursing Sciences in Malaysia. The unit has been involved in the undergraduate teaching leading to Bachelor in Nursing Sciences ever since its formation.

The unit was established as a clinical department: Department of Nursing Science in Faculty of Medicine, University of Malaya on the 1<sup>st</sup> July 2007.

The Vision of the Department is to be a center of excellence in nursing education by producing registered nurses that are competent, safe, has good moral values and critical thinking ability, caring and interacts with clients, families and communities in providing care in various health services in the country. With this vision our mission is to be excellent in educating and producing graduate at tertiary level in line with changes in technology and services in the field of nursing in Malaysia through teaching and learning and evidence based practice.

Bachelor of Nursing Sciences Programme covers eight semesters and one special semesters within 4 years and is specially designed to prepare nursing students with relevant knowledge, competencies and professionalism at undergraduate level.

The aim of this course is to produce nursing graduates with in-depth knowledge in nursing and medical sciences. Upon completion, graduates are expected to practice nursing critically and ethically by applying scientific nursing foundation in health care delivery.





## **PROGRAMME OBJECTIVES**

The aim of the programme is to:

- i. Produce knowledgeable graduate nurses who will apply effective, ethical and safe nursing knowledge in providing nursing care to patient.
- ii. Produce graduate nurses with research culture and practice evidence based nursing.

## **EDUCATIONAL OUTCOMES**

At the end of Bachelor of Nursing Science Programme, graduates are able to:

- PO1 – Competent in knowledge and skills necessary in the education and practice related to nursing.
- PO2 – Apply scientific nursing foundation in assessing, planning, implementing and evaluating the care of patients, families and communities.
- PO3 – Apply appropriate social skills and be responsible in meeting the needs of the patients.
- PO4 – Demonstrate professional behavior and personal values in accordance to the nursing ethics and code of conduct in delivering health care.
- PO5 – Communicate and collaborate effectively with patients, families, societies and other healthcare professionals as a team.
- PO6 – Conduct nursing research and solve patient's health problems scientifically using critical nursing skills.
- PO7 – Apply management of information technology towards lifelong learning in nursing.
- PO8 – Utilize managerial and entrepreneur skills while giving consultation services in patients' care.

## **ACADEMIC PROGRAMME & COURSE STRUCTURE**

The academic year consists of two semesters. Two are normal semesters and one special semester. Each normal semester consists of:

1. Lectures – 14 weeks
2. Vacation (During Mid Semester) – 1 week
3. Examination – 3 weeks.

Meanwhile the special semester consists of 8 weeks of lectures and examination. Each student is given 3 weeks off within the 2 normal semesters.

Course offered is categorized under:

- I. University Courses
- II. Faculty Courses (Core and Electives)

Students are required to register and pass all courses. The courses will be conducted via lectures, tutorials, discussion and practical sessions in University Malaya Medical Centre and other health organization.



## **PROGRAMME STRUCTURE**

### **1. Malaysian Students:**

Courses Level	Courses Name		Credits
University Courses	GIG 1001	Islamic and Asian Civilisation <i>Tamadun Islam dan Tamadun Asia (TITAS)</i>	2
	GIG 1002	Ethnic Relations <i>Hubungan Etnik</i>	2
	GIG 1003	Basics of Entrepreneurship Culture <i>Asas Pembudayaan Keusahawanan</i>	2
	GIG 1004	Information Literacy <i>Literasi Maklumat</i>	2
	GLT XXXX	English for Communication Programme Program Bahasa Inggeris Komunikasi	6
	GIG 1005	<i>Social Engagement</i> <i>Jalinan Masyarakat</i>	2
	GKX XXXX	Co-Curriculum Course Kursus Ko-Kurikulum	2
		External Faculty Elective <i>Kursus Elektif Luar Fakulti (KELF)</i>	4
	Total		22
Faculty Courses	Core Courses*		118
	Elective Courses		2
Total Credits			142



## PROGRAMME STRUCTURE

### 2. International Students:

Courses Level	Courses Name		Credits
University Courses	GIG 1003	Basics of Entrepreneurship Culture <i>Asas Pembudayaan Keusahawanan</i>	2
	GIG 1004	Information Literacy <i>Literasi Maklumat</i>	2
	GLT 1005	Social Engagement <i>Jalinan Masyarakat</i>	2
	GIG 1006	Introduction to Malaysia <i>Pengenalan Kepada Malaysia</i>	2
	GLT1017	<i>Basic Malay Language</i> <i>Bahasa Melayu Asas</i>	2
	GLT XXXX	English for Communication Programme Program Bahasa Inggeris Komunikasi	6
	GKX XXXX	Co-Curriculum Courses Kursus Ko-Kurikulum	2
		Faculty’s External Elective Course <i>Kursus Elektif Luar Fakulti (KELF)</i>	4
	Total		22
Faculty Courses	Core Courses*		118
	Elective Courses		2
Total Credits			142



## **COURSE STRUCTURE**

### **Year 1 (2019/2020)**

#### **Semester I**

Category	Course Code	Course Name	Credits
University Course	GIG1001 / GLT1017	Islamic and Asian Civilisation (C) / Basic Malay Language (NC)	2
	GIG 1003	Basic of Entrepreneurship Culture	2
Core Courses	MID 1001	Basic Medical Science I	3
	MID 1002	Nursing Process	2
	MID 1003	Nursing Skills I	3
	MID 1004	Effective Communication in Nursing	2
	MID 1005	Health Psychology	2
	MID 1006	Nursing Practice I	3

#### **Semester II**

Category	Course Code	Course Name	Credits
University Course	GIG1002 / GIG1006	Ethnic Relations (C) / Introduction to Malaysia (NC)	2
	GIG 1004	Information Literacy	2
	GLT XXXX	English for Communication Programme	3
Core Courses	MID 1007	Basic Medical Science II	3
	MID 1008	Nursing Skills II	4
	MID 1009	Pharmacology in Nursing	3
	MID 1010	Microbiology & Parasitology	2
	MID 1011	Nursing Practice II	4
	MID 1010	Sociology in Nursing	2



## Year 2 (2020/2021)

### Semester I

Category	Course Code	Course Name	Credits
University Course	GLT XXXX	English for Communication Programme	3
Core Course	MID 2001	Medical Nursing I	2
	MID 2002	Surgical Nursing I	2
	MID 2003	Nursing Concepts	2
	MID 2004	Nursing Practice III	4
	MID 2005	Basic Medical Science III	3

### Semester II

Category	Course Code	Course Name	Credits
University Course	GLT 1005	Social Engagement	2
Core Course	MID 2006	Surgical Nursing II	2
	MID 2007	Primary Health Care and Public Health	2
	MID 2008	Nursing Practice IV	4
	MID 2009	Medical Nursing II	2
	MID 2010	Basic Medical Science IV	3
Elective Course	MID 2011	Moral and Ethics in Nursing Profession	2



### Year 3 (2021/2022)

#### Semester I

Category	Course Code	Course Name	Credits
University Course		Faculty's External Elective Course	4
Core Course	MID 3001	Professionalism and Legal Aspects in Nursing	2
	MID 3002	Obstetrics and Gynecology Nursing	3
	MID 3003	Paediatrics Nursing	3
	MID 3004	Nursing Research	3
	MID 3005	Nursing Practice V	2

#### Semester II

Category	Course Code	Course Name	Credits
Core Course	MID 3006	Community Health Nursing	3
	MID 3007	Statistics in Nursing Research	3
	MID 3008	Mental Health Nursing	2
	MID 3009	Counseling Skills for Nurses	2
	MID 3010	Nursing Practice VI	4

#### Special Semester

Category	Course Code	Course Name	Credits
Core Course	MID 3011	Orthopaedic, Ophthalmology, Otorhinolaryngology, Gerontology Nursing	3
	MID 3012	Nursing Practice VII	3



### Year 4 (2022/2023)

#### Semester I

Category	Course Code	Course Name	Credits
University core course		Co-curriculum Course	2
Core Course	MID 4001	Emergency, Intensive and Perioperative Nursing	3
	MID 4002	Management and Leadership in Nursing	2
	MID 4003	Research project	5
	MID 4004	Nursing Practice VIII	3
	MID 4005	Teaching Function of A Nurse	2

#### Semester II

Category	Course Code	Course Name	Credits
Core Course	MID 4006	Nursing Practice IX	4
	MID 4007	Internship	5



## COURSE SUMMARY

YEAR I SEMESTER I (2019/2020)

MID 1001: Basics Medical Science I

3 credits

### **Learning Outcomes:**

At the end of this course, students are able to:

1. identify the general principles and basic terminology for anatomy physiology and biochemistry.
2. explain the anatomy and physiology in the human body.

### **Course Synopsis**

The course includes the anatomy, physiology and biochemistry of the cell, tissues, muscles, glands and the following systems:

- Musculoskeletal
- Circulatory
- Respiratory
- Digestive
- Renal

### **Reference Texts**

- Barret, K. E., Barman, S.M., Boitano, S. & Brooks, H. (2012). Ganong's. Review of Medical Physiology (24th Ed.). New York: McGraw Hill Medical.
- Marieb, E.M. & Hoehn, K. (2016). Anatomy & physiology. (10th Ed.). Harlow: Essex Pearson.
- Martini, F. H., Nath, J. L. & Bartholomew, E. F. (2014). Fundamentals of Anatomy & Physiology. (10th Ed.). New Jersey: Pearson.
- Patton, K. T. & Thibodeau, G. A. (2013). Anthony's textbook of anatomy & physiology (20th Ed.). St. Louis, Mo.: Mosby/Elsevier.
- Tortora, G. J. & Derrickson, B. H. (2011). Principles of Anatomy and Physiology (13th Ed.). New Jersey: John Wiley & Sons.

### **Course Assessment:**

Course will be assessed by:

Continuous assessment - 40%

- Test 1 (20%)
- Test 2 (20%)

Final Examination: 60%



**Learning Outcomes:**

At the end of this course, students are able to:

1. explain the nursing theories and models.
2. explain the concept of nursing process.
3. explain the process of planning a nursing care plan using nursing process.

**Course Synopsis:**

This course consists of nursing theories and models as well as the required skills of the nursing process such as assessment, planning, implementation and evaluation.

**Reference Texts:**

- Alfaro, R. (2009). Applying Nursing Process: A Tool for Critical Thinking (7th Ed.). Philadelphia: Lippincott Williams & Wilkins.
- Carpenito, L. J. (2012). Nursing Diagnosis: Application to Clinical Practice (14th. Ed.). Philadelphia: Lippincott Williams & Wilkins.
- Cox, C. L., (2010). Physical Assessment For Nurses. Iowa: Wiley-Blackwell Publication.
- Gail, B. Ladwig, G.B. & Betty J. A. (2013). Mosby's Guide to Nursing Diagnosis. (4th. Ed.). St Louis: Mosby.
- Ladwig, G. B, Ackley B. J. & Makic M. B. F. (2016). Mosby's Guide to Nursing Diagnosis. (5th. Ed.). Philadelphia: Elsevier Mosby.

**Course Assessment:**

Course will be assessed by:

Continuous Assessment: 40%

- Written (30%)
- Presentation (10%)

Final Examination: 60%



## MID 1003: Nursing Skills I

3 credits

143

### **Learning Outcomes:**

At the end of the course the students are able to:

1. explain the principle of body mechanics, observations microbial and environmental safety.
2. explain the responsibilities before, during and after performing nursing procedures.
3. perform nursing procedures according to principles.
4. explain the elements of effective documentation.

### **Course Synopsis:**

The course includes topics regarding body mechanics and positioning, comfort and safety needs of patient, observation of patients, admission and discharge of patients and documentation.

### **Reference Texts:**

- Berman, A J. (2011). Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice. (9th Ed.). New York: Prentice-Hall.
- Grodner, M., Roth, S. L., Walkingshaw, B. C. (2012). Nutritional Foundations and Clinical Applications: A Nursing Approach. (5th Ed.). Philadelphia: Elsevier Mosby.
- Potter, P. & Perry, A. G. (2010). Basic Nursing Theory And Practice. (7th Ed.). New York: Mosby.
- Potter P., Perry A. G., Stockert, P. & Hall, I. A. (2016). Fundamentals Of Nursing (9th Ed.). Philadelphia: Elsevier Mosby.
- Taylor C. Lillis, C, LeMone, P. & Lynn P. (2011). Fundamentals Of Nursing. The Art And Science Of Nursing Care. (7th Ed.). China: Lippincott Williams & Wilkins.

### **Course Assessment:**

Course will be assessed by:

Continuous Assessment: 40%

- Test (20%)
- Assignment (20%)

Final Examination: 60%

2019/2020



## MID 1004: Effective Communication In Nursing

144

2 credits

### **Learning Outcomes:**

At the end of the course the students are able to:

1. explain the process of communication, communication styles and skills with client and healthcare personnel.
2. identify the factors influencing and barriers to effective communication.
3. discuss the communication strategies for client in specific situation.
4. identify the communication skills during interview session.

### **Course Synopsis:**

This course includes concept and element in communication. It also covers verbal and non-verbal, barriers in communication, communication styles, listening skills, questioning and interviewing skills

### **Reference Texts:**

- Arnold, E. & Boggo, K. U. (2003). Interpersonal Relationship: Professional Communication Skills For Nurses. (4th Ed.). St. Louise: W.B. Saunders Company.
- Bach S. (2015). Communication and Interpersonal Skills in Nursing. (3rd Ed.). Singapore: SAGA.
- Balzer-Riley, J. W. (2011) Communication in nursing (7th Ed.). St. Louis: Mosby.
- Hayes, D. A. & Arshad R. (2011). Effective communication in Nursing. Oxford Fajar: Malaysia.
- Servellen, V. & Marram, G. (2009). Communication skills for the health care professional: concepts, practice, and evidence. (2nd Ed.). Sudbury, Mass: Jones and Bartlett Publishers.

### **Course Assessment:**

Course will be assessed by:

Continuous assessment: Assignment: 40%

- Role play (30%)
- Reflective report (10%)

Final Examination: 60%

2019/2020



## MID 1005: Health Psychology

2 credits

145

### **Learning Outcomes:**

At the end of the course students are able to :

1. explain concepts of health psychology.
2. describe the developmental psychology from childhood to elderly, health behaviors and psychobiologic perspective of pain and illness.
3. explain the models and theories related to cognitive, psychosocial and behavioral in health psychology.

### **Course Synopsis:**

This course aims to identify concept on psychological health and psychological development from conception to adulthood. This course consists of developmental theories on cognition and psychology. It also include of psycho-social aspects and health behaviour.

### **Reference Texts:**

- Berk, L. E. (2010). Development through the lifespan (5th Ed.). Boston: Allyn & Bacon.
- Niven, N. (2006). Psychology of Nursing Care (2nd Ed.).New York: Palgrave MacMillan.
- Ogden, J. (2007). Health psychology: a textbook, (4th Ed.). Berkshire, England: McGraw Hill Open University Press.
- Papalia, D. E, Olds, S. W. & Feldman, R (2009). Human Development, New York Boston: McGraw Hill.

### **Course Assessment:**

Course will be assessed by:

Continuous assessment: 40%

- Assignment & Presentation (20%)
- Test (20%)

Final Examination: 60%

2019/2020



## MID 1006: Nursing Practice I

3 credits

146

### **Learning Outcomes:**

At the end of the course students are able to :

1. identify patients basic needs using assessment and communication skills.
2. perform basic nursing procedure according to nursing process approach.
3. perform individualized nursing care according to the patients' need.
4. record vital signs, intake output and basic nursing interventions in patients' chart.

### **Course Synopsis:**

The course includes attachment to hospital wards to perform basic nursing procedures such as positioning, hygiene care, basic bed making, measuring vital signs and writing patient's report. It also provides opportunity for student to apply nursing process and communication skills.

### **Reference Texts:**

- Berman, A. J. (2010) Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th Ed.) New York: Prentice-Hall.
- Potter, P. A. & Perry, A. G. (2010) Basic Nursing Theory And Practice (7th Ed.) New York: Mosby.
- Ingnatovicus, D. D. and Workman M. L. (2015). Medical Surgical Nursing – patient centered collaborative care (9th Ed.). Philadelphia: W.B. Saunders.
- Potter, P. A., Perry, A. G., Stockert, P. & Hall, A. (2013). Fundamentals of Nursing (8th Ed.). St. Louis: Elsevier Mosby.
- Taylor, C. Lillis, C., LeMone, P. & Lynn, P. (2011). Fundamentals Of Nursing. The Art And Science Of Nursing Care (7th Ed.). China: Lippincott Williams & Wilkins.

### **Course Assessment:**

Continuous Assessment :100%

- Clinical assessment (40%)
- Reflective writing (20%)
- Case presentation (30%)
- Clinical evaluation (10%)

2019/2020



**YEAR I SEMESTER 2 (2019/2020)**

**MID I007: Basic Medical Sciences II**

147

**3 credits**

**Learning Outcomes:**

At the end of the course students are able to :

1. describe the macroscopic and microscopic structure of nervous, endocrine, sensory, reproductive and integumentary system.
2. explain the function and physiology of nervous, endocrine, sensory, reproductive and integumentary system.

**Course Synopsis:**

This course includes the anatomy, physiology and biochemistry of the following system:

- nervous system
- endocrine system
- sensory system
- reproductive system
- integumentary system

**Reference Texts:**

- Applegate, E. J. (2011). Study guide for the anatomy & physiology learning system (4th Ed.). St. Louis, Mo.: Saunders/Elsevier.
- Marieb, E. N. & Hoehn, K. (2013). Human anatomy & physiology (9th Ed.). Upper Saddle River: Pearson.
- Patton, K. T. & Thibodeau, G. A. (2013). Anthony's textbook of anatomy & physiology (20th Ed.). St. Louis, Mo.: Mosby/Elsevier.
- Thibodeau, G. A & Patton, K. T. (2012). Structure & function of the body (14th Ed.). St. Louis, Mo.: Elsevier/Mosby.
- Waugh, A. & Grant, A. (2014). Ross and Wilson anatomy and physiology in health and illness. (12th Ed.). Edinburgh: Churchill Livingstone. Elsevier.

**Course Assessment:**

Course will be assessed by:

Continuous Assessment: Test 40%

- Test 1 (20%)
- Test 2 (20%)

Final Examination: 60%

2019/2020



## MID 1008: Nursing Skills II

4 credits

148

### **Learning Outcomes:**

At the end of the course students are able to :

1. explain the nursing responsibilities before, during and after performing nursing procedures.
2. perform the nursing procedures according to principles.
3. explain the principles and nursing responsibilities of drugs administration.
4. discuss the nursing responsibilities in caring for patient with intravenous therapy and blood transfusion.

### **Course Synopsis:**

This course covers medical and surgical nursing procedures. It also include topics such as fulfilling elimination needs, specimen collection, intravenous therapy, blood transfusion and management of deceased patients.

### **Reference Texts:**

- Berman, A J. (2011). Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th Ed.). New York: Prentice Hall.
- Grodner, M., Roth, S. L. & Walkingshaw, B. C. (2012). Nutritional Foundations and Clinical Applications: A Nursing Approach (5th Ed.). Philadelphia: Elsevier Mosby.
- Potter, P & Perry, A. G. (2010). Basic Nursing Theory And Practice (7th Ed.). New York: Mosby.
- Potter P., Perry A. G., Stockert P. & Hall A. (2016). Fundamentals Of Nursing (9th Ed.). Philadelphia: Elsevier Mosby.
- Taylor C., Lillis, C., LeMone, P. & Lynn P. (2011). Fundamentals Of Nursing. The Art And Science Of Nursing Care (7th Ed.). China: Lippincott Williams & Wilkins.

### **Course coordinator:**

Madam Rasnah Abdul Rahman

### **Course Assessment:**

Course will be assessed by:

Continuous Assessment: 40%

- Assignment (20%)
- Test (20%)

Final Examination: 60%

2019/2020



## MID 1009: Pharmacology in Nursing

3 credits

149

### **Learning Outcomes:**

At the end of the course students are able to :

1. explain the basic terminologies, principles of pharmacology and classification of drugs.
2. explain the actions, side effects, and adverse reactions of the various drugs.
3. discuss the nursing responsibilities in drugs administration.

### **Course Synopsis:**

This course includes knowledge on terminology in pharmacology, drugs classification, actions, side effects, and adverse reactions of the various drugs. It also covers nursing responsibilities in drugs administration.

### **Reference Texts:**

- Black, J. M. and Hawks, J. H. (2008). Medical Surgical Nursing – Clinical Management for Positive Outcome. (8th Ed.). St. Louis Saunders Elsevier.
- Berman, A., Snyder, S. J., Kozier, B. & Erb, G. (2008). Kozier & Erb's Fundamentals of Nursing Concepts, Process And Practice. (8th Ed.). Upper Saddle River, N.J.: Pearson Prentice Hall.
- Broyles, B. E., Reiss, B. S. & Evans, M. E. (2007). Pharmacological Aspects of Nursing Care. (7th Ed.). New York: Thomson Delmar Learning.
- Philips, L.D. (2010). Manual of I.V. Therapeutics: Evidence-Based Practice for Infusion Therapy. (5th Ed.). Philadelphia: F.A. Davis Co.
- Potter, P. A., & Perry, A. G. (2008). Fundamentals of Nursing. (7th Ed.). St. Louis, Mo.: London: Mosby.

### **Course coordinator:**

Miss R.Kavitha Rasaiah

### **Course Assessment:**

Course will be assessed by:

Continuous Assessment: 40%

- Assignment (20%)
- Test (20%)

Final Examination: 60%

2019/2020





## MID 1010: Microbiology & Parasitology

2 credits

150

### **Learning Outcomes:**

At the end of the course students are able to :

1. describe the classification and characteristics of microorganism.
2. explain the etiology and pathogenesis of bacteria, virus, fungi, spirochete, protozoa, parasites and filariasis.
3. explain the principles of immunology and adverse immune response.
4. explain the safety practices in the prevention of communicable diseases.

### **Course Synopsis:**

This course consists of knowledge on microbiology, parasitology, immunology and safety practices in the prevention of communicable diseases.

### **Reference Texts:**

- Abbas, A. & Lichtman, A. (2011). Basic immunology: functions and disorders of the immune system. Philadelphia: Saunders/Elsevier.
- Cornelissen, C.N., Fisher, B. D. & Harvey, R. A. (2014). Lippincott's Illustrated Reviews: Microbiology. (3rd Ed.). Philadelphia: Lippincott Williams & Willkins.
- Kenneth R., Ray C. G., Ahmad, N, Drew, W.L. & Plorde, J. (2014). Sherris medical microbiology (6th Ed.). New York: Mc Graw Hill Medical.
- Livinson, W. (2014). Review of Medical Microbiology & Immunology. (13th Ed.). New York: Mc Graw Hill Medical..
- Tortora, G. J., Funke, B. R. & Case, C. L. (2015). Microbiology: An Introduction. (12th Ed.). Upper Saddle River: Pearson.

### **Course Assessment:**

Course will be assessed by:

Continuous Assessment: 40%

- Test 1 (20%)
- Test 2 (20%)

Final Examination: 60%

2019/2020



## MID 1011: Nursing Practice II

4 credits

151

### **Learning Outcomes:**

At the end of the course students are able to :

1. identify individualized nursing care to patient in the wards.
2. perform nursing skills to meet basic patients needs according to activity of daily living.
3. perform nursing care to patient with enteral feeding, intravenous therapy, blood transfusion, oxygen therapy, wounds, continuous bladder drainage and drainage tube.
4. identify the correct principles to administer the medications.

### **Course Synopsis:**

The course includes attachment to ward to perform nursing procedures: enteral feeding, intravenous therapy, blood transfusion oxygen therapy, dressing and bandaging, catheterization and medication administration. It also provides opportunity for student to apply nursing process and communication skills.

### **Reference Texts:**

- Berman, A. J. (2010). Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th ed.). New York: Prentice-Hall.
- Ingnatovicus, D. D. and Workman M. L. (2015). Medical Surgical Nursing – patient centered collaborative care (9th Ed.). Philadelphia : W.B. Saunders.
- Lehne, R. A. (2013). Pharmacology for nurses care. St. Louis: Elsevier Mosby.
- Potter, P.A., Perry, A.G., Stockert, P. & Hall, A. (2013). Fundamentals of Nursing (8th Ed.). St. Louis: Elsevier Mosby.
- Taylor, C. Lillis, C., LeMone, P. & Lynn, P. (2011). Fundamentals Of Nursing. The Art And Science Of Nursing Care (7th Ed.) China: Lippincott Williams & Wilkins.

### **Course Assessment:**

Course will be assessed by:  
Continuous Assessment: 100%

2019/2020



## MID 1012: Sociology in Nursing

152

2 credits

### **Learning Outcomes:**

At the end of the course students able to :

1. explain basic concepts in sociology in relation to culture, community, norms, values, socialization and its importance in nursing.
2. discuss the hospital as a social institution, health beliefs and practices, biomedical innovation, social and cultural changes and its impact on health and illness.
3. identify the sociological aspect of the sick roles of the patients and the patient-practitioner relationship.

### **Course Synopsis:**

The course consists of introduction to basic concepts and scopes in sociology such as topics on culture, norms, values, socialization, stratification in society and medicalization. It also includes topics on hospital as a social institution, health beliefs and practices, biomedical innovation, social and cultural changes and its impact on health and illness. Sick roles of patient and patient-practitioner relationship will also be discussed.

### **Reference Texts:**

- Ember, C. (2008). Culture Anthropology (12th.Ed.). New York : Prentice-Hall.
- Hashim Awang (1990). Pengantar antropologi perubatan. Kuala Lumpur: Dewan Bahasa dan Pustaka.
- Helman, C. (2007). Culture, health and illness : An introduction for health professionals (5th Ed.). London: Hodder Arnold.
- Scrambler, G. (2008). Sociology as applied to medicine (6th Ed.). Edinburgh : Saunders/Elsevier

### **Course Assessment:**

Course will be assessed by:

Continuous assessment: 40%

- Assignment (20%)
- Role play assessment (20%)

Final Examination: 60%

2019/2020



**YEAR 2 SEMESTER I (2020/2021)**

**MID 2001: Medical Nursing I**

153

**2 credits**

**Learning Outcomes:**

At the end of the course students are able to :

1. identify the nursing care of patients with shock and electrolyte imbalance and principles of standard and transmission-based precaution.
2. describe nursing care of patient with infectious disease.
3. determine nursing care of patient with cardiovascular and respiratory disorders.

**Course Synopsis:**

This course consists of patient with of shock and electrolyte imbalance. It also includes nursing care of patients with infectious diseases, cardiovascular and respiratory disorders.

**Reference Texts:**

- Alexander, M. F, Fawcett, J. N & Runciman P. J. (2006). Nursing Practice Hospital And Home The Adult (3rd Ed.). Edinburgh: Churchill Livingstone Elsevier.
- Black, J. M. & Hawks J. H. (2008). Medical Surgical Nursing – Clinical Management for Positive Outcome (8th Ed.). St. Louis Saunders Elsevier.
- DeLaune,S.C. & Ladner,P.K. (2011). Nursing Faudamental: Standard and Practice. Cengage Asia Singapore.
- LeMone, P. & Burke, K. M. (2008). Medical-surgical nursing care: Critical Thinking in Client Care (4th Ed). New Jersey: Pearson Prentice Hall.
- Ignatavicius, D. D & Workman M. L. (2009). Medical-surgical nursing: critical thinking for collaborative care. (6th Ed.). St.Louis: Saunders Elsevier.

**Course Assessment:**

Course will be assessed by:

Continuous Assessment : 40%

- Test I-20%,
- Assignment: 20%

Final Examination: 60%

2019/2020



## MID 2002: Surgical Nursing I

2 credits

154

### **Learning Outcomes:**

At the end of the course students are able to :

1. explain the pre and post operative care and complications for surgical patients.
2. identify wound care and pain management in surgical patients.
3. determine the nursing care of patients with cancer, vascular, cardiothoracic, mammary and endocrine disorder.

### **Course Synopsis:**

This course consist of nursing care of pre and post operative patients, post operative complications and discomfort. It also includes surgical care of patients with wound, vascular, cardiothoracic, mammary and endocrine disorder.

### **Reference Texts:**

- Berman, A J.& Snyder,S. (2011) Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th ed.) New York. Prentice-Hall\*\*
- Berman A.J. & Snyder,S. (2011). Skills in Clinical Nursing (7th ed.). Prentice Hall.\*
- Black, J.M. and Hawks J.H, (2008) Medical Surgical Nursing – Clinical Management for Positive Outcome (8th ed.) St. Louis Saunders Elsevier.
- LeMone, P. & Burke, K. M. (2008) Medical-surgical nursing care: Critical Thinking in Client Care (4th ed). New Jersey: Pearson Prentice Hall.
- Potter, P. A., Perry, G., Hall, A. & Stockert P.A. (2009) Fundamentals of nursing (7th. ed.). St. Louis : Mosby.

### **Course Assessment:**

Course will be assessed by:

Continuous assessment :

- Test I: 20%
- Test II: 20%

Final examination: 60%

2019/2020



## MID 2003: Nursing Concepts

2 credits

155

### **Learning Outcomes:**

At the end of the course students are able to :

1. describe the various concepts and transcultural care in nursing.
2. explain theories related to the nursing concepts and transcultural care.
3. discuss the implication and nursing responsibilities of the nursing concepts.

### **Course Synopsis:**

This course covers various nursing concepts, related theories and transcultural care nursing. The implication and nursing responsibilities of the nursing concepts will also be discussed.

### **Reference Texts:**

- Black, B.P. & Chitty, K.K. (2014). Professional Nursing: concepts & challenges. Elsevier, St. Louis. Missouri.
- Giddens, J.F. (2014). Concepts for Nursing Practice. Elsevier Mosby. St Louis, Missouri.
- Giger, J.N. (2012). Transcultural Nursing, (6th Ed). Elsevier Inc. St. Louis, Missouri.
- Hood, L. J. (2010). Leddy & Pepper's Conceptual Bases of Professional Nursing (7th Ed.). Philadelphia: Wolters Kluwer Lippincott Williams & Wilkins.
- Potter, P.A. (2013). Fundamentals of Nursing. (8th edition). Elsevier Mosby. St Louis, Missouri.

### **Course Assessment:**

Course will be assessed by:

Continuous assessment: 40%

- Assignment 20%
- Test 20%

Final Examination: 60%

2019/2020



## MID 2004: Nursing Practice III

4 credits

156

### **Learning Outcomes:**

At the end of the course students are able to :

1. provide pre and post operative care on surgical patients with cancer, vascular, cardiothoracic, mammary and endocrine.
2. perform nursing care to patient with medical conditions: infectious diseases, cardiovascular, respiratory disorders and cancer.
3. provide the management and nursing care of patients with shock and/or electrolyte imbalance.
4. demonstrate nursing procedures on medical and surgical patients.

### **Course Synopsis:**

The course is a clinical attachment to medical and surgical wards to provide nursing care and perform medical-surgical procedures for patients with cancer, vascular, cardiothoracic, mammary, endocrine, infectious diseases, and respiratory disorders. It also provides opportunity for student to apply isolation technique on patients with infectious disease.

### **Reference Texts:**

- Berman, A J. & Snyder, S. (2011) Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th Ed.). New York. Prentice-Hall
- Black, J.M. and Hawks J.H, (2008) Medical Surgical Nursing – Clinical Management for Positive Outcome (8th Ed.) St. Louis Saunders Elsevier.
- Corner, J. & Bailey, C. (2008) Cancer nursing : care in context (2nd ed.). Oxford: Blackwell Pub.
- DeLaune, S.C. & Ladner, P.K. (2011). Nursing Fundamental: Standard and Practice. Cengage Asia Singapore.
- LeMone, P. & Burke, K. M. (2008). Medical-surgical nursing care: Critical Thinking in Client Care (4th Ed). New Jersey: Pearson Prentice Hall.

### **Course Assessment:**

Course will be assessed by:

Continuous Assessment: 100%

- Case study and presentation -30%
- Report writing - 20%
- OSCE - 40%
- Clinical Evaluation- 10%

2019/2020



**Learning Outcomes:**

At the end of the course students are able to :

1. Identify fluid therapy and the management of patients with shock and electrolyte imbalance.
2. Explain the clinical manifestation of for patient with infectious diseases.
3. Describe the clinical manifestation and management of patient with mammary, cardiothoracic, vascular, respiratory, thyroid disorder and cancer.

**Course Synopsis:**

This course consists of topics on management of shock, fluid and electrolyte imbalance and fluid therapy. It also includes medical and surgical management of patients with cancer, mammary, cardiothoracic, respiratory, vascular and thyroid disorder.

**Reference Texts:**

- Chabner, B. & Longo, D. L. (2011). Cancer chemotherapy and biotherap: principles and practice (5th Ed.) Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins Health
- DeLaune, S.C. & Ladner, P.K. (2011). Nursing Faudamental: Standard and Practice. Cengage Asia Singapore.
- LeMone, P. & Burke, K. M. (2008). Medical-surgical nursing care: Critical Thinking in Client Care (4th Ed). New Jersey: Pearson Prentice Hall.
- Ignatavicius, D. D & Workman M. L. (2009). Medical-surgical nursing: critical thinking for collaborative care. (6th Ed.). St.Louis: Saunders Elsevier.
- Stephen, J, McPhee, Hammer, G. D. (2014). Pathophysiology of Diseases: An Introduction to Clinical Medicine. (7th Ed). New York: Mc Graw-Hill Education.

**Course Assessment:**

Course will be assessed by:

Continuous Assessment : 40%

- Test I-20%,
- Test II: 20%

Final Examination: 60%





**YEAR 2 SEMESTER 2 (2020/2021)**

**MID 2006: Surgical Nursing II**

158

**2 credits**

**Learning Outcomes:**

At the end of the course students are able to :

1. Identify surgical nursing responsibilities in specific procedures related to gastrointestinal, hepatobiliary, urological, and neurosurgical disorders.
2. Determine the pre and post operative nursing care for patient with alteration of gastrointestinal, hepatobiliary, urological, neurosurgical disorders and burns.

**Course Synopsis:**

This course comprises pre operative and post operative nursing care of surgical patient with alteration gastrointestinal, renal and genitourinary, CNS disorders and burns. It also covers topics on specific investigations for surgery and surgical procedures.

**Reference Texts:**

- Berman, A J.& Snyder,S. (2011) Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th ed.) New York. Prentice-Hall\*\*
- Berman A.J. & Snyder,S. (2011). Skills in Clinical Nursing (7th ed.). Prentice Hall.\*
- Black, J.M. and Hawks J.H, (2008) Medical Surgical Nursing – Clinical Management for Positive Outcome (8th ed.) St. Louis Saunders Elsevier.
- LeMone, P. & Burke, K. M. (2008) Medical-surgical nursing care: Critical Thinking in Client Care (4th ed). New Jersey: Pearson Prentice Hall.
- Potter, P. A., Perry, G., Hall, A. & Stockert P.A. (2009) Fundamentals of nursing (7th. ed.). St. Louis : Mosby.

**Course Assessment:**

Course will be assessed by:

Continuous Assessment: 40%

- Assignment- 20%
- Test – 20%

Final Examination: 60%

2019/2020



**MID 2007: Primary Health Care and Public Health**

**3 credits**

159

**Learning Outcomes:**

At the end of the course students are able to :

1. Describe the concepts, elements and nursing roles in primary care, family and community health care, and environmental health.
2. Explain the concept of epidemiology, health promotion and health education.
3. identify the activities and concept of home visiting.

**Course Synopsis:**

This course includes the concepts and elements in primary, family and community health care, health promotion, health education, epidemiology, home visiting including the nursing roles.

**Reference Texts:**

McMurray, A. & Clendon, J. (2011). Community Health and Wellness: Primary Health Care in Practice (4th Ed.). Churchill Livingston Elsevier.\*

Allender JA., Rector C., Warner KD Community & Public Health Nursing: Promoting the PUBLIC'S HEALTH International Edition 8th edition Copyright 2014 Wolters Kluwer Lippincott Williams & Wilkins

Clark MJ Copyright 2013 Community Health Nursing: Advocacy for Population Health 5th edition Pearson

Mary A. N & McEwen M Community/Public Health Nursing, 6th Edition  
Copyright 2015

**Course Assessment:**

Course will be assessed by:

Continuous assessment :

- Test : 10%
- Assignment : 30%

Final Examination : 60%

2019/2020



## MID 2008: Nursing Practice IV

4 credits

160

### **Learning Outcomes:**

At the end of the course students are able to :

1. perform nursing care to patient with medical conditions; autoimmune, integumentary, renal, hematology, endocrine and neurological disorders.
2. provide surgical nursing care for patient with alteration of gastrointestinal, urological, neurological disorders and burns.
3. demonstrate medical-surgical nursing procedures on patients.

### **Course Synopsis:**

The course is a clinical attachment to medical and surgical wards to provide nursing care and perform medical-surgical procedures for patients with autoimmune, integumentary, renal, hematology, endocrine, neurological, gastrointestinal, urological, and burns .It also provides opportunity for student to perform neurological assessment to patient with neurological disorders.

### **Reference Texts:**

- Berman, A J. & Snyder, S. (2011) Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th Ed.). New York. Prentice-Hall
- Black, J.M. and Hawks J.H, (2008) Medical Surgical Nursing – Clinical Management for Positive Outcome (8th Ed.) St. Louis Saunders Elsevier.
- Corner, J. & Bailey,C. (2008) Cancer nursing : care in context (2nded.). Oxford: Blackwell Pub.
- DeLaune,S.C. & Ladner,P.K. (2011). Nursing Faudamental: Standard and Practice. Cengage Asia Singapore.
- LeMone, P. & Burke, K. M. (2008). Medical-surgical nursing care: Critical Thinking in Client Care (4th Ed). New Jersey: Pearson Prentice Hall.

### **Course Assessment:**

Course will be assessed by:

Continuous Assessment: 100%

- Case study and presentation -30%
- Reflective writing -10%
- OSCE -50%
- Clinical Evaluation- 10%

2019/2020



**MID 2009: Medical Nursing II**

**2 credits**

**161**

**Learning Outcomes:**

At the end of the course students are able to :

1. Identify the nursing responsibility in diagnostic procedure for patient with, gastrointestinal, renal, hematology, endocrine and neurological disorders.
2. determine the nursing care of patient with autoimmune, integumentary , gastrointestinal, integumentary, renal, hematology, endocrine and neurological disorders.

**Course Synopsis:**

The course includes nursing care of patients with alterations of body systems which consist of autoimmune, integumentary, gastrointestinal, integumentary, renal, hematology, endocrine and neurological disorders. It's also includes nursing responsibilities in specific procedures related to the diseases.

**Reference Texts:**

- Berman, A J.& Snyder,S. (2011) Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th ed.) New York. Prentice-Hall.
- Berman A.J. & Snyder,S. (2011). Skills in Clinical Nursing (7th ed.). Prentice Hall.\*
- Black, J.M. and Hawks J.H, (2008) Medical Surgical Nursing – Clinical Management for Positive Outcome (8th ed.) St. Louis Saunders Elsevier.
- LeMone, P. & Burke, K. M. (2008) Medical-surgical nursing care: Critical Thinking in Client Care (4th ed). New Jersey: Pearson Prentice Hall.
- Ignatavicius, D.D & Workman M.L. (2005).Medical Surgical Nursing – A Nursing Process Approach Philadelphia: Saunders.

**Course coordinator:**

Madam Noor Hanita

**Course Assessment:**

Course will be assessed by:  
Continuous Assessment: 40%

- Test
- Assignment

Final Examination: 60%

**2019/2020**



**MID 2010: Basic Medical Science IV**

**3 credits**

**162**

**Learning Outcomes:**

At the end of the course students are able to :

1. Identify etiology, pathophysiology, clinical manifestations, investigation, and complications in autoimmune disease, integumentary , gastrointestinal, renal, hematological, endocrine, neurological, urological system and burns.
2. Explain the medical management of patients with autoimmune disease, integumentary , gastrointestinal, renal, hematological, endocrine, neurological, urological system and burns.
3. Describe the surgical management of patients with autoimmune disease, integumentary, gastrointestinal, renal, hematological, endocrine, neurological, urological system and burns.

**Course Synopsis:**

This course includes etiology, pathophysiology, clinical manifestations, investigation, complications, surgical and medical management in the autoimmune disease, integumentary , gastrointestinal, renal, hematological, endocrine, neurological, urological system and burns

**Reference Texts:**

- Berman, A J.& Snyder,S. (2011) Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th ed.) New York. Prentice-Hall.
- Berman A.J. & Snyder,S. (2011). Skills in Clinical Nursing (7th ed.). Prentice Hall.\*
- Black, J.M. and Hawks J.H, (2008) Medical Surgical Nursing – Clinical Management for Positive Outcome (8th ed.) St. Louis Saunders Elsevier.
- LeMone, P. & Burke, K. M. (2008) Medical-surgical nursing care: Critical Thinking in Client Care (4th ed). New Jersey: Pearson Prentice Hall.
- Ignatavicius, D.D & Workman M.L. (2005).Medical Surgical Nursing – A Nursing Process Approach Philadelphia: Saunders.

**Course Assessment:**

Course will be assessed by:

Continuous Assessment : 40%

- Test I-20% (week 7)
- Test II: 20% (week 14)

Final Examination: 60%

**2019/2020**



## MID 2011: Moral and Ethics in Nursing Profession

2 credits

163

### **Learning Outcomes:**

At the end of the course students are able to :

1. Describe moral and ethical principles in nursing.
2. Explain the code of professional conduct in nursing.
3. Explain the ethical dilemma and ethical decision making in patient care.
4. Discuss ethical issues in nursing practice, education, management and research.

### **Course Synopsis:**

The course includes definition of moral and ethics, ethical theories, ethical principles and code professional conduct that control nursing practice. It also covers ethical issues, ethical dilemmas and decision making in clinical practice, management, education and research.

### **Reference Texts:**

- Burkhardt, M.A. & Nathaniel A.K. (2009). Ethics & issues in contemporary nursing (3rd Ed.). Australia; Albany: Delmar.
- Burnard, P. & Chapman, C.M. (2004) Professional And Ethics Issues In Nursing (3rd Ed.). London: Bailliere Tindall.
- Butts J.B. & Rich, K.L. (2008) Nursing ethics: across the curriculum and into practice (2nd Ed.). Sudbury, MA: Jones and Bartlett Publishers.
- Chitty, K. K. & Black, B.P. (2011). Professional Nursing: Concepts & Challenges. (6th Ed.) Maryland: Saunders Elsevier.
- Fry, S.T., Veatch, R.M. & Taylor, C. (2011). Case Studies In Nursing Ethics.(4th Ed.). Sudbury, MA: Jones & Bartlett Learning.
- Thompson, I.E., Melia K.M., Boyd, K.M. & Horsburgh, D. (2006) Nursing Ethics. (5th Ed.). London: Churchill Livingstone.

### **Course Assessment:**

Course will be assessed by:

Continuous Assessment:

- Test - (20%)
- Assignment - 20%

Final Examination: 60%

2019/2020



**YEAR 3 SEMESTER I (2021/2022)**

164

**MID 3001: Professionalism and Legal Aspects in Nursing**

**2 credits**

**Learning Outcomes:**

At the end of the course students are able to :

1. explain the concept of professionalism in nursing.
2. Identify the types of law influencing nursing practice and health services.
3. Apply legal principles in medico-legal issues related to nursing practice.

**Course Synopsis:**

This course consists of professionalism and challenges, nurses act, rules of employment, introduction to law, law related to healthcare practice, medico-legal issues & its application in nursing practice.

**Reference Texts:**

- Black, B.P. (2013). Professional Nursing: Concept & Challenges (7th ed). Elsevier Inc.: St. Louise.
- Hood, L.J. (2014). Leddy & Pepper's Conceptual Bases of Professional Nursing (8th ed). Lippincott: Philadelphia.
- Glembocki, M.M., & Fitzpatrick, J.J. (2013). Advancing Professional Nursing Practice: Relationship-based care and the ANA Standards of Professional Nursing Practice. Creative Health Care Management: USA.
- Puteri Nemie Jahn Kassim. (2012). Nursing Law and Ethics. International Law Book Services: Petaling Jaya.
- Thompson, I.E., Melia, K.M., Boyd, K.M. & Horsburgh, D. (2006) Nursing Ethics (5th ed). Churchill Livingstone, Edinburgh.

**Course Assessment:**

Course will be assessed by:

Continuous assessments: Assignment : 40%  
Final Examination: 60%

2019/2020



## MID 3002: Obstetric & Gynecologic Nursing

3 credits

165

### **Learning Outcomes:**

At the end of the course students are able to :

1. Explain the physiological changes during pregnancy, labor and puerperium.
2. Identify the assessment and management of women during pregnancy, labour and puerperium.
3. Describe the assessment and care of newborn baby.
4. Discuss the management and nursing care of women with obstetrics and gynecological condition.

### **Course Synopsis:**

This course consists of knowledge and skills of Obstetric and Gynecology Nursing. It includes nursing care during the antenatal period, management of mothers in all stages of labour and puerperium. It also focuses on nursing care of the newborn and women with common obstetrics and gynaecology conditions.

### **Reference Texts:**

- Aminah Hashim, A., Sood, M., & Padubidri, V. (2008). Obstetric Nursing. Shah Alam: Oxford.
- Hatfield, N. T., (2014). Introductory maternity & Pediatric nursing 3rd ed. Philadelphia: Lippincott Williams & Wilkins Health, 2014.
- Leifer, G., (2012). Maternity nursing: An introductory text. 11 ed. St. Louis, Mo.: Elsevier/Saunders.
- Lowdermilk, D.L., Perry S.E., Cashion, M.C., & Alden, K.R. (2012). Perry Maternity and Women's Health Care, 10th ed. St. Louis, MO.: Elsevier Mosby.
- McKinney, E.S. James S.R. Murray, S.S., & Ashwill J.W. (2013). Maternal-Child Nursing 4th ed. St. Louis: Elsevier Saunders.
- Ricci S.S., (2013). Essentials of Maternity, Newborn, and Women's Health Nursing, 3rd ed. Philadelphia: Wolters Kluwer Lippincott Williams and Wilkins.
- Perry, S.E., (2012). Maternal and Newborn Nursing 2nd ed. (Clinical Companion). St. Louis, MO: Mosby.

### **Course Assessment:**

Course will be assessed by:

Continuous Assessment: Test 20% Assignment 20%

Final Examination: 60%

2019/2020





## MID 3003: Paediatrics Nursing

3 credits

166

### **Learning Outcomes:**

At the end of the course students are able to :

1. Explain the assessment and management of medical surgical conditions in paediatrics.
2. Determine the nursing care of paediatric patients with medical surgical conditions.
3. Identify the nursing responsibilities related to paediatrics skills.

### **Course Synopsis:**

This course prepares students on assessment and management of medical surgical conditions in paediatrics. It includes nursing care of paediatric patients with various medical surgical conditions and skills.

### **Reference Texts:**

- Daeschner, W. Jr & Richardson, C.J. (2012). Pediatric Nursing. Sanat Printers. Kandii.
- Hockenberry, M.J. (2014) Wong's essentials of pediatric nursing. (9th ed.). St. Louis : Mosby.
- Hockenberry, M.J. & Wilson, D. (2014). Wong's Nursing care of Infant and Children. (9th ed). Elsevier Mosby, St. Louis. Missouri
- Kyle, T. & Carman, S. (2013) Essentials of Pediatric Nursing. (2nd ed.) Philadelphia. Lippincott Williams & Wilkins.
- Sheridan, M., Sharma, A. & Cockerill, h. (2014) .Mary Sheridan's from Birth to Five Years: Children's Developmental Progress. NFER Publishing Co. Ltd., New York.

### **Course Assessment:**

Course will be assessed by:

Continuous assessment : Assignment 20% Test: 20%

Final Examination: 60%

2019/2020



## MID 3004: Nursing Research

3 credits

167

### **Learning Outcomes:**

At the end of the course students are able to :

1. Explain the principles of research process, its application to nursing and health practices and nurses' roles in the research process.
2. Describe research design and methodology applied in nursing research.
3. Discuss ethical considerations in nursing research.
4. Write a research proposal.

### **Course Synopsis:**

In this course, students will learn the research process applied in nursing practice. This course will provide introduction to both quantitative and qualitative research approaches. The steps involve in the research process will be examined, discussed and developed into nursing research proposal. This course also will encourage the students to analyse published nursing researches of its methodology and application to nursing practice. The importance of utilizing research finding into patient care will be emphasised. Nurses' role and responsibilities as consumer of research will be highlighted. Students will be provided opportunity to communicate their research ideas through oral presentation.

### **Reference Texts:**

- Grove, S. K., Gray, J.R. & Burns, N. (2015). Understanding nursing research : building an evidence-based practice (6th ed.). Missouri: Elsevier Saunders.
- Creswell,J.W. (2014). Research design: Qualitative, quantitative and mixed method approaches (4th ed.). USA: Sage.
- Kurup, C.P.B. (2014). Nursing Research & Statistics (3th ed.). New Delhi: Jaypee Brothers Medical Publications (P) Ltd.
- LoBiondo-Wood, G. Haber, J. (2010) Nursing Research: Methods and Critical Appraisal for Evidence-Based Practice. (7th ed.). St. Louis, Mosby.
- Polit, D. F. & Beck, C. T. (2010). Essentials of nursing research: appraising evidence for nursing practice (7th ed.). Philadelphia: Wolters Kluwer Health

### **Course Assessment:**

Course will be assessed by:  
Continuous Assessment - Quiz 10%; Assignment 30%

Final Examination: 60%

2019/2020



## MID 3005: Nursing Practice V

168

4 credits

### **Learning Outcomes:**

At the end of the course students are able to :

1. Identify nursing interventions for women during pregnancy, labor, puerperium and with gynaecological conditions based on assessment.
2. Perform assessment and nursing care to babies and children with various medical, surgical and congenital problems.
3. Perform nursing skills related obstetrics & gynaecology and paediatric nursing.

### **Course Synopsis:**

The course provides clinical experiences in paediatric, obstetrics, gynaecology wards and clinics. It gives opportunity for students to practice nursing care of women during antenatal, intrapartum and postpartum, and with gynaecological conditions, nurse babies and children with various medical, surgical and congenital problems. Students are required to perform related nursing procedures.

### **Reference Texts:**

- Berman, A J. (2010) Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th ed.) New York. Prentice-Hall
- Black, J.M. and Hawks J.H, (2008) Medical Surgical Nursing – Clinical Management for Positive Outcome (8th ed.) St. Louis Saunders Elsevier
- Ingnatavicus, D.D. and Workman M.L. (2009) Medical Surgical Nursing – patient centered collaborative care (6th ed.). Philadelphia : W.B. Saunders
- Potter & Perry (2010) Basic Nursing Theory And Practice (7th ed.) New York : Mosby
- Taylor C. Lillis, C, LeMone, P. Lynn P. (2011) Fundamentals Of Nursing. The Art And Science Of Nursing Care (7th ed.) China: Lippincott Williams & Wilkins

### **Course Assessment:**

Course will be assessed by:

- Continuous Assessment: 100%
- Case presentation 40%
  - Report writing 10%
  - Clinical assessment 40%
  - Clinical Evaluation 10%

2019/2020



**YEAR 3 SEMESTER 2 (2021/2022)**

**MID 3006: Community Health Nursing**

169

**3 credits**

**Learning Outcomes:**

At the end of the course students are able to :

1. explain the concept of maternal and child health care and risk management.
2. explain the concept of school health services, occupational health and children with special needs including rehabilitation.
3. Identify the nutritional needs for maternal and child wellbeing.
4. Describe the immunization schedule in Malaysia.

**Course Synopsis:**

This course consists of concepts of child health assessment from babies to school children, high risk approach for children and mothers, school health services and handling children with special needs at community level. It includes nutrition for maternal and child wellbeing and immunization schedule as well as the role of the nurse in immunization and rehabilitation programme.

**Reference Texts:**

Yadav, H., Chong, M. C., See, T. L. (2011). Community Health Nursing. Oxford Fajar: Kuala Lumpur

Allender JA., Rector C., Warner KD Community & Public Health Nursing: Promoting the Public's Health International Edition 8th edition Copyright 2014 Wolters Kluwer Lippincott Williams & Wilkins

Clark MJ Copyright 2013 Community Health Nursing: Advocacy for Population Health 5th edition Pearson.

Mary A. N & McEwen M Community/Public Health Nursing, 6th Edition Copyright 2015

**Course Assessment:**

Course will be assessed by:

Assignment: 20% Test 20%

Final Examination: 60%

2019/2020



## MID 3007: Statistics in Nursing Research

3 credits

1701

### **Learning Outcomes:**

At the end of the course students are able to :

1. explain the use of statistics, variables, scale of measurements, measure of central tendency and variability.
2. demonstrate proficiency in data management and data entry.
3. summarize data into tabulation and graphical presentation.
4. perform descriptive and inferential statistical analysis and interpretation using basic statistical knowledge and skills.

### **Course Synopsis:**

Students will be introduced to the usage of statistics in health context such as basic concept of descriptive and inferential statistics. Student will also learn the process of data entry and management, data analysis, data interpretation and presentation and also reporting the results. Students will be given opportunities to use the Statistical Package for the Social Sciences (SPSS) software for statistical analysis.

### **Reference Texts:**

Chinna, K., Karuthan, K. & Choo, W.Y. (2012). Statistical analysis using SPSS. Kuala Lumpur: Pearson Malaysian Sdn Bhd.

Kurup, C.P.B. (2014). Nursing Research & Statistics (3th ed.). New Delhi: Jaypee Brothers Medical Publications (P) Ltd.

Lee, N.& Yadav., H (2010) Statistics for health care professionals, Kuala Lumpur: University of Malaya Press.

Polit, Denise F. (2010). Statistics and data analysis for nursing research (2nd ed.). Upper Saddle River, NJ: Pearson.

Sharma, S.K. (2015). Nursing research and statistics (2nd ed.).. India: Reed Elsevier India Pvt. Ltd.

### **Course Assessment:**

Course will be assessed by:

Continuous Assessment: 40% (Quiz 20%; Assignment 20%)

Final Examination: 60%

2019/2020



## MID 3008: Mental Health Nursing

2 credits

171

### **Learning Outcomes:**

At the end of the course students are able to :

1. Explain the concepts of mental health and psychiatric conditions, assessment and management of the patients.
2. Determine the nursing care of patients with mental health and psychiatric conditions.
3. Identify the nursing responsibilities in relation to psychopharmacological, psychological and physical therapies.

### **Course Synopsis:**

This course provides students with knowledge and understanding about mental health disorders. It also includes mental health act, management modalities and nursing care of patients with common mental health disorders.

### **Reference Texts:**

Casey, P. R. & Byng, R. (2011). Psychiatric in Primary Care (4th ed.). Cambridge: University Press.  
Videbeck, S.L.(2014) Psychiatric-Mental Health Nursing. 6th ed. Philadelphia Lippincott: Williams Wilkins.  
Malchiodi, C. A. (2013). Art therapy & health care. New York: The Guilford Press.  
Silverman, W.K. & Field, A.P. (2011). Anxiety Disorder in Children & Adolescents. (2nd ed.). Cambridge: University Press.  
Varcarolis E. M., Halter M. J. (Copyright 2013). Essentials of Psychiatric Mental Health Nursing Communication based care (2nd ed) Saunders, Elsevier Inc.

### **Course Assessment:**

Course will be assessed by:

Continous assessment : Assignment: 20% Test 20%

Final Examination: 60%

2019/2020



## MID 3009: Counseling Skills for Nurses

2 credits

172

### **Learning Outcomes:**

At the end of the course students are able to :

1. Explain theories, aims, principles and process of counselling.
2. Identify the characteristics and nurses' roles in counselling.
3. Apply the counselling skills in specific situation.

### **Course Synopsis:**

This course provides exposure to basic theory and skills in counselling. It includes models, process, counselling in specific situations, ethical concerns and issues in counselling.

### **Reference Texts:**

- Egan, G. (2002) *The Skilled Helper : a problem-management and opportunity-development approach to helping* (7th ed.). Belmont, Calif.: Thomson Brooks/Cole.
- Suradi Salim (1996) *Bimbingan Dan Kaunseling (Edisi Pertama)* Utusan Publications & Distribution Sdn. Bhd.
- Burnard, P (2005) *Counselling Skills For Health Professionals* (4th ed.). Cheltenham: Nelson Thornes Ltd.
- McLeod, J. (2009) *An introduction to counselling* (4th ed.) Open University press, McGraw Hill Co.
- Nelson-Jones, R. (2003) *Essential counselling and therapy skills: the skilled client model*. London: SAGE Publications.

### **Course Assessment:**

Course will be assessed by:

Continuous Assessment: 40%

- Assignment 30%
- Quiz 10%

Final Examination: 60%

2019/2020



## MID 3010: Nursing Practice VI

4 credits

### **Learning Outcomes:**

At the end of the course students are able to :

1. Perform nursing care to patient with mental health and psychiatric conditions.
2. Perform nursing care to maternal and child in community setting.
3. Perform school health service to children and children with special needs in the community.
4. Perform nursing skill related to mental and community health nursing.

### **Course Synopsis:**

The course includes attachment to psychiatric, primary health and community health setting. It also provides opportunity for students to practice specific nursing skills related to the psychiatric and community health.

### **Reference Texts:**

- Berman, A J. (2010) Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th ed.) New York. Prentice-Hall.
- Black, J.M. and Hawks J.H, (2008) Medical Surgical Nursing – Clinical Management for Positive Outcome (8th ed.) St. Louis Saunders Elsevier.
- Ingnatovicus, D.D. and Workman M.L. (2009) Medical Surgical Nursing – patient centered collaborative care (6th ed.). Philadelphia : W.B. Saunders.
- Potter & Perry (2010) Basic Nursing Theory And Practice (7th ed.) New York : Mosby
- Taylor C. Lillis, C, LeMone, P. Lynn P. (2011) Fundamentals Of Nursing. The Art And Science Of Nursing Care (7th ed.) China: Lippincott Williams & Wilkins

### **Course Assessment:**

Course will be assessed by:

- Continuous Assessment :100%
- Case presentation – 20%
- Portfolio-20%
- Reflective writing – 10%
- OSCE - 50%





**YEAR 3 SEMESTER 3 (2021/2022)**

174

**MID 3011: Orthopaedic, Ophthalmology, Otorhinolaryngology & Gerontology  
Nursing**

**3 credits**

**Learning Outcomes:**

At the end of the course students are able to :

1. explain the clinical manifestation and management for patient with orthopaedic, ophthalmology, and otorhinolaryngology conditions.
2. determine nursing care for patient with with orthopaedic, ophthalmology, and otorhinolaryngology conditions.
3. explain management and nursing care of gerontological conditions.

**Course Synopsis:**

This course consists of management and nursing care of patients with orthopaedic, ophthalmology, otorhinolaryngology and gerontology conditions.

**Reference Texts:**

- Berman, A J. (2011). Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th Ed.). New York. Prentice-Hall.\*\*
- Black, J. M. & Hawks J. H, (2008). Medical Surgical Nursing – Clinical Management for Positive Outcome (8th Ed.). St. Louis: Saunders Elsevier.
- Ignatavicius, D. D. & Workman M. L. (2009). Medical-surgical nursing: critical thinking for collaborative care. (6th Ed.). St.Louis: Saunders Elsevier.\*\*
- LeMone, P. & Burke, K. M. (2008). Medical-surgical nursing care: Critical Thinking in Patient Care (4th Ed). New Jersey: Pearson Prentice Hall.
- Taylor C. Lillis, C, LeMone, P. Lynn P. (2011). Fundamentals Of Nursing. The Art And Science Of Nursing Care (7th Ed.). China: Lippincott Williams & Wilkins.\*\*
- Schoen, D. C. (2000). Adult orthopaedic nursing Philadelphia: Lippincott

**Course Assessment:**

Course will be assessed by:  
Continuous Assessment: 40%

- Test- 20%
- Assignment-20%

Final Examination: 60%

2019/2020



## MID 3012: Nursing Practice VII

3 credits

175

### **Learning Outcomes:**

At the end of the course students are able to :

1. Identify nursing intervention when giving care to patient with orthopedic, eye, ear, and nose and throat disorder based on assessment.
2. Perform nursing care to elderly patient in hospital.
3. Perform nursing skill related to orthopedic, eye, ear, and nose and throat disorder and in the care of elderly.

### **Course Synopsis:**

The course provides clinical experiences in orthopaedic, EENT, and gerontology wards and clinics. It gives opportunity for students to practice nursing care and perform related nursing procedures.

### **Reference Texts:**

- Berman, A J. (2010) Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (9th ed.) New York. Prentice-Hall.
- Black, J.M. and Hawks J.H, (2008) Medical Surgical Nursing – Clinical Management for Positive Outcome (8th ed.) St. Louis Saunders Elsevier.
- Ingnatovicus, D.D. and Workman M.L. (2009) Medical Surgical Nursing – patient centered collaborative care (6th ed.). Philadelphia : W.B. Saunders.
- Potter & Perry (2010) Basic Nursing Theory And Practice (7th ed.) New York : Mosby
- Taylor C. Lillis, C, LeMone, P. Lynn P. (2011) Fundamentals Of Nursing. The Art And Science Of Nursing Care (7th ed.) China: Lippincott Williams & Wilkins.

### **Course Assessment:**

Course will be assessed by:

- Continuous Assessment : 100%
- Case presentation 40%
  - Report writing 10%
  - OSCE 50%

2019/2020



**YEAR 4 SEMESTER I (2022/2023)**

**MID 4001: Emergency, Intensive and Preoperative Nursing**

**3 credits**

**Learning Outcomes:**

At the end of the course students are able to :

1. explain the nursing assessment and management of patients with emergency conditions.
2. explain the nursing assessment and management of patients with critical illness and respiratory support.
3. explain the management of patients during preoperative, intraoperative and postoperative phases.
4. determine the nurses' roles and responsibilities in emergency, intensive and perioperative nursing.

**Course Synopsis:**

This course consists of basics emergency, intensive and perioperative nursing. Emergency nursing covers management of patients during trauma, medical emergencies, resuscitation and medico-legal cases. Intensive care nursing covers care of patients with respiratory support and invasive and non-invasive monitoring, specific nursing procedures, continuous renal replacement therapy and renal transplant. Perioperative nursing covers asepsis, infection control and safety practices, anaesthetic drugs and nurses' responsibilities during perioperative period.

**Reference Texts:**

- Hammond, B.B, & Zimmermann, P.G. (2012). Sheehy's Manual Emergency Care.(7th . ed) St.Louis,Mosby:Elsevier Australia.
- Jauch, A., & Tscheshlog, B.A. (2014). Emergency Nursing made Incredibly Easy. (2nd .ed). Lippincott : Wolters Kluwer.
- Diehl, T.S. (2012). Critical Care Nursing made incredibly easy. (3rd ed.). Philadelphia : Lippincott : Wolters Kluwer
- Marino, P, L. (2013). The ICU book. (4th ed.). Lippincott : Wolters Kluwer
- Urden, L.D., Stacy, K.M. & Lough, M.E. (2013). Critical Care Nursing. (7th ed.). St.Louis: Elsevier Mosby.
- Phillips, N. F. (2013). Berry & Kohn's operating room technique (12th ed.). St. Louis, Mo: Elsevier.
- Rothrock, J. C. (2015). Alexander's Care of the patient in surgery (15th ed.). St. Louis, Mo.: Elsevier/Mosby

**Course Assessment:**

Course will be assessed by:



Continuous Assessment: 40%

- Test I (20% )
- Test II (20%)

Final Examination: 60%

## MID 4002: Management and Leadership in Nursing

2 credits

### **Learning Outcomes:**

At the end of the course students are able to :

1. explain the concepts, principles, processes and basic theories of nursing management and leadership.
2. identify the roles and responsibilities of nurse leaders in planning, organizing, staffing, directing, controlling, making decisions and improving patient care quality.
3. demonstrate ability to discuss specific strategies related to change management, conflicts management, team building, staff and personal/professional development, problem solving and delegation process within the nursing contexts.

### **Course Synopsis:**

This is an introduction course to the concepts and theories of nursing leadership and management. It aims to provide the students' knowledge on management and leadership principles, process and theories. The content also focuses on conflict management, change management, quality improvement and personal and professional development in nursing.

### **Reference Texts:**

Ellis, P. & Bach, S. (2015). Leadership, management & team working in nursing (2nd ed.). London, UK: Saga Publication Ltd.

Kelly, P. (2012). Nursing Leadership and Management (3rd ed.). China: Cengage Learning

Marquis, B.L., & Huston, C.J. (2012). Leadership roles and management functions in nursing (7th ed.). Philadelphia: Lippincott

Yadav H., Khatijah Lim , Faridah Hashim & Zahrah Saad (2010), Nursing Management. Shah Alam Selangor: Oxford Fajar.

Yoder-Wise, P.S. (2014). Leading and managing in nursing (6th ed.). St Louis, US: Elsevier-Health Sciences Division.

### **Course Assessment:**

Course will be assessed by:

Continuous Assessment: 40% [Quiz (10%) Assignments (30%)]

Final Examination: 60%



## MID 4003: Research Project

5 credits

178

### **Learning Outcomes:**

At the end of the course students are able to :

1. apply research process in carrying out a research project.
2. write a research project based on the research findings and according to the guidelines of writing project paper.
3. share the results of the research project through oral and poster presentation.

### **Course Synopsis:**

This course requires the students to conduct a nursing research according to the guideline given. Students may conduct their studies either in the field of nursing education, management or clinical practice using a quantitative research approach. Besides producing a research report, students are also required to present and defend their study findings through oral and poster presentation.

### **Reference Texts:**

- Creswell,J.W. (2014). Research design: Qualitative, quantitative and mixed method approaches (4th ed.). USA: Sage.
- Grove, S. K., Gray, J.R. & Burns, N. (2015). Understanding nursing research: building an evidence-based practice (6th ed.). Missouri: Elsevier Saunders.
- Kurup, C.P.B. (2014). Nursing Research & Statistics (3th ed.). New Delhi: Jaypee Brothers Medical Publications (P) Ltd.
- LoBiondo-Wood, G. Haber, J. (2010) Nursing Research: Methods and Critical Appraisal for Evidence-Based Practice. (7th ed.). St. Louis, Mosby.
- Whittaker, A. & Williamson, G.R. (2011) Succeeding in research project plans and literature reviews for nursing students. Exeter U.K: Learning Matters Ltd.

### **Course Assessment:**

Course will be assessed by  
Continuous Assessment 100% (Project)

2019/2020



**MID 4004: Nursing Practice VIII**

**3 credits**

**179**

**Learning Outcomes:**

At the end of the course students are able to :

1. identify the management of patients with emergency conditions, critical condition and patients requiring operations.
2. perform individualized nursing care according to the patients need in emergency unit, intensive care units and operation theatre.
3. demonstrate specific nursing skills related to emergency care, intensive care and perioperative care.

**Course Synopsis:**

The course involves attachment to operation theatre, intensive care unit, and trauma & emergency unit for 6 weeks. It also provides opportunity for students to provide nursing care and related specific nursing skills.

**Reference Texts:**

- Hammond, B.B, & Zimmermann, P.G. (2012). Sheehy's Manual Emergency Care.(7th . ed) St.Louis,Mosby:Elsevier Australia.
- Jauch, A., & Tscheshlog, B.A. (2014). Emergency Nursing made Incredibly Easy. (2nd .ed). Lippincott : Wolters Kluwer.
- Diehl, T.S. (2012). Critical Care Nursing made incredibly easy. (3rd ed.). Philadelphia : Lippincott : Wolters Kluwer
- Marino, P, L. (2013). The ICU book. (4th ed.). Lippincott : Wolters Kluwer
- Urden, L.D., Stacy, K.M. & Lough, M.E. (2013). Critical Care Nursing. (7th ed.). St.Louis: Elsevier Mosby.
- Phillips, N. F. (2013). Berry & Kohn's operating room technique (12th ed.). St. Louis, Mo: Elsevier.
- Rothrock, J. C. (2015). Alexander's Care of the patient in surgery (15th ed.). St. Louis, Mo.: Elsevier/Mosby

**Course Assessment:**

Course will be assessed by:

Continuous Assessment: 100%

- Case study and presentation (40%)
- Reflective writing (10%)
- OSCE (50%)

**2019/2020**



## MID 4005: Teaching Function of A Nurse

2 credits

180

### **Learning Outcomes:**

At the end of the course students are able to :

1. Identify the factors that influence clinical teaching-learning process, learning outcomes, teaching media and strategies according to the learners need.
2. Write a lesson plan for teaching and learning activities for a clinical teaching session.
3. Determine the assessment and evaluation method in planning clinical teaching.

### **Course Synopsis:**

This course provides the nurses with the knowledge on clinical teaching and learning process for client, students and staffs. It consists of factors influencing the teaching-learning process in clinical area, learning outcome, task analysis, preparation for teaching session and lesson plan, clinical teaching method and clinical evaluation.

### **Reference Texts:**

- Bastable, S. B. (2013). Nurse as educator: principles of teaching and learning for nursing practice (4th ed.). Sudbury: Jones and Bartlett.
- Billings, D.M. & Judith A. Halstead. J.A. (2016) . Teaching in nursing : a guide for faculty (5th ed.), St. Louis, Mo. : Elsevier/Saunders.
- Gaberson, K. B. & Oermann, M. H. (2014). Evaluation and Testing in Nursing Education: (4th ed.). New York: Springer Publishing.
- Gaberson, K. B., Oermann, M. H. & Shellenbarger, T. (2015). Clinical Teaching Strategies in Nursing (4th ed.). New York: Springer Publishing.
- Gardner, M & Suplee, P.D. (2010) Handbook Of Clinical Teaching In Nursing And Health Sciences Sudbury, Mass. : Jones and Bartlett Publishers.
- McDonald, M. (2014) The nurse educator's guide to assessing learning outcomes. Burlington, MA : Jones & Bartlett Learning.

### **Course Assessment:**

Course will be assessed by:

Continuous Assessment : 40%

- Assignment and Presentation - 40%

Final Examination : 60%

2019/2020



**YEAR 4 SEMESTER 2 (2022/2023)**

**MID 4006: Nursing Practice IX**

**4 credits**

**Learning Outcomes:**

At the end of the course students are able to :

1. Demonstrate ability in managing nursing care of patients using management and leadership skills.
2. Perform the functions of a team leader in nursing team.
3. Identify the patient's learning needs when planning a structured lesson plan before conducting a patient teaching session.

**Course Synopsis:**

This course provide students the opportunities to manage nursing care of patients using management and leadership skills in the medical and surgical wards. Students will be given experience to function as a team member and team leader in the nursing team. Students are also required to conduct a patient teaching session according to the learner's need using a structured lesson plan.

**Reference Texts:**

- Berman, A. J., Snyder, S. & Frandsen, G (2015). Kozier & Erb's Fundamentals Of Nursing Concepts, Process And Practice (10th Ed.) Edinburgh: Pearson
- Hinkle, J. L & Cheever, K.H. (2014). Brunner and Suddarth's Textbook of Medical Surgical Nursing (13th ed.). Philadelphia: Lippincott Williams & Wilkins
- Gaberson, K. B., Oermann, M. H. & Shellenbarger, T. (2015). Clinical Teaching Strategies in Nursing (4th ed.). New York: Springer Publishing.
- LeMone, P., Burke, K. M., Bauldoff, G. & Gubrud, P. (2015). Medical-surgical nursing: clinical Reasoning in Patient Care (6th Ed). Edinburgh : Pearson
- Marquis B.L & Huston C.J. & (2015). Leadership Roles and Management Functions in Nursing: Theory and Application (8th Ed.). : Philadelphia: Lippincott Williams & Wilkins.

**Course Assessment:**

Course will be assessed by:

Continuous Assessment: 100%

- Patient teaching – 40%
- Patient Round Assessment (hand-over report) – 30%
- Nurse Manager's Evaluation Report – 10%
- Clinical Portfolio – 20%





**MID 4007: Internship**

**5 credits**

**182**

**Learning Outcomes:**

At the end of the course students are able to :

1. Demonstrate an ability to apply comprehensive professional knowledge in nursing care at a hospital setting.
2. Perform the roles of a registered professional nurse according to the requirement of nursing board by integrating ethical principles and interpersonal communication skills.
3. Identify the specific nursing management and leadership skills while performing the role as a team leader of a nursing team in the ward.

**Course Synopsis:**

This course provides an experience for the students to perform as a professional nurse under supervision in a hospital. This may enhance the role transitions process from student to professional nurse besides strengthening their nursing skills. The students also will have the opportunity to apply the managerial and leadership skills in the management of patients.

**Reference Texts:**

Harris, J.L , Roussel, L. & Thomas P.L. (2013). Initiating and Sustaining the Clinical Nurse Leader Role: A Practical Guide (2nd ed.). Burlington, MA: Jones & Bartlett Pub.

Russel –Chapin L.A., Sherman, N. E. & Ivey, A.E. (2016) Your supervised practicum and internship : field resources for turning theory into action. New York: Routledge.

Gaberson, K. B., Oermann, M. H. & Shellenbarger, T. (2015). Clinical Teaching Strategies in Nursing (4th ed.). New York: Springer Publishing.

LeMone, P., Burke, K. M., Bauldoff, G. & Gubrud,P. (2015). Medical-surgical nursing: clinical Reasoning in Patient Care (6th Ed). Edinburgh : Pearson

Marquis B.L & Huston C.J. & (2015). Leadership Roles and Management Functions in Nursing: Theory and Application (8th Ed.). : Philadelphia: Lippincott Williams & Wilkins.

**Course Assessment:**

Course will be assessed by:

Continuous Assessment 100%

- Performance assessment – 30%
- Ward Round – 40%
- Assignment and Presentation - Report – 30%

**2019/2020**



NOTES.....

NOTES.....

184

2019/2020

## NOTES.....

185



*THANK YOU*  
PREPARED BY;

**UNDERGRADUATE UNIT, DEAN'S OFFICE**

FACULTY OF MEDICINE  
UNIVERSITY OF MALAYA