

# PANDUAN PRASISWAZAH

Sesi Akademik 2014-2015

Fakulti Perubatan



PANDUAN PRASISWAZAH  
Fakulti Perubatan  
Sesi Akademik 2014-2015

# AHLI - AHLI PENGURUSAN TERTINGGI PUSAT PERUBATAN UKM



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ENCIK ADLI MUHAMMAD  
KETUA PEGAWAI OPERASI

# **PANDUAN PRASISWAZAH**

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### Sesi Akademik 2014-2015

**Fakulti Perubatan**  
Universiti Kebangsaan Malaysia  
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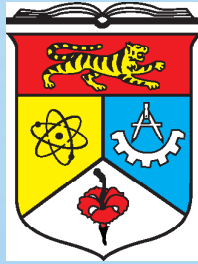
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*Universiti Kebangsaan ini merupakan  
puncak dari usaha kita ke arah  
memenuhi tuntutan dan aspirasi rakyat  
yang ingin melihat bahawa bahasa ibunda  
mempunyai kedaulatan dan kedudukan  
yang sewajarnya di dalam usaha  
memenuhi keperibadian nasional*



(Ucapan Tun Abdul Razak di Konvokesyen Pertama UKM, 1973)



## Maksud Logo UKM

Logo UKM ialah sebuah perisai yang berpetak empat. Tiap-tiap petak mengandungi gambar dan membawa maksud-maksud tertentu.

### Buku

Buku melambangkan ilmu pengetahuan iaitu peranan utama UKM sebagai pusat pengajian tinggi dan penyelidikan.

### Perisai

Perisai bererti keteguhan. Keteguhan yang dimaksudkan ialah kemampuan UKM memainkan peranan sebagai pusat pengajian tinggi di negara ini.

### Harimau

Harimau melambangkan keberanian dan kegagahan. Harimau mencerminkan masyarakat Malaysia yang berteraskan kebudayaan Melayu. Harimau garang menggambarkan kesediaan dan keupayaan UKM mara memerangi kejahatan, kejahatan dan kepalsuan.

### Atom dan Teknologi

Simbol-simbol atom dan teknologi melambangkan konsep pembangunan negara yang berlandaskan sains dan teknologi moden. UKM sebagai pusat ilmu bertanggungjawab mengeluarkan tenaga-tenaga mahir dalam semua bidang untuk memenuhi keperluan pembangunan negara.

### Bunga Raya

Bunga raya adalah bunga kebangsaan Malaysia. Lima helai ranggi melambangkan lima prinsip Rukun Negara yang diamalkan dan sentiasa dipelihara oleh rakyat Malaysia.



# Kandungan

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### **Kata Alu-aluan**

Assalamualaikum w.b.t, Salam Sejahtera dan Salam 1Malaysia,

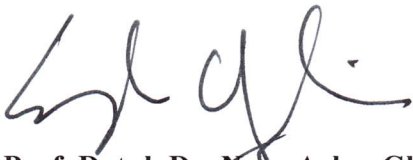
Saya mengucapkan tahniah dan syabas di atas kejayaan saudara-saudari melanjutkan pengajian di Universiti Kebangsaan Malaysia. Saudara-saudari seharusnya berbangga menjadi warga baru universiti kebangsaan yang ditubuhkan hasil perjuangan para pejuang bangsa yang berjuang untuk memartabatkan bahasa Melayu sebagai bahasa ilmu tinggi beracuankan budaya kebangsaan.

Universiti Kebangsaan Malaysia merupakan sebuah universiti komprehensif yang dapat memberikan pelbagai pengalaman istimewa kepada pelajar. Suasana pembelajaran menuntut para pelajar berinisiatif sendiri; mencipta dan meneroka peluang mendalami ilmu pengetahuan tinggi; mendampingi para ilmuwan dan intelektual; mengenal potensi diri; mengembangkan minat dan bakat; membentuk keupayaan memimpin; dan membina interaksi sosial yang sihat. UKM sebagai universiti penyelidikan, akan sentiasa memberi dorongan kepada para pelajar agar lebih kreatif dan inovatif dalam merintis segala hasrat yang boleh dikembangkan untuk membina masa hadapan saudara-saudari yang cemerlang.

Bertepatan dengan tuntutan negara yang ingin menzahirkan transformasi sistem pendidikan secara pantas dan mampan, para pelajar dicabar untuk mendukung hasrat tersebut. Pola pemikiran dan pendekatan dalam bertindak bagi era inovasi ini pastinya berbeza. Oleh itu, para pelajar harus memanfaatkan aliran perkembangan ini dengan memahami dan menghayati sistem pendidikan berasaskan eko-sistem ilmu di UKM. Pembangunan modal insan yang berkualiti bukan sahaja bergantung kepada pendidikan berkualiti di dalam dewan kuliah mahupun makmal sahaja, ianya juga adalah hasil penerokaan ilmu serta potensi diri yang mempunyai jati diri yang kukuh, berketerampilan mulia, berkeupayaan mencipta peluang baru serta kebolehan untuk berhadapan dengan persekitaran global yang sering berubah.

Saya menyeru agar sepanjang keberadaan saudara-saudari di Universiti ini, manfaatkanlah segala peluang yang ada untuk menjadi modal insan dambaan negara. Saudara-saudari juga diharapkan agar dapat memberi sumbangan bermakna untuk membangunkan dan menjayakan peranan UKM sebagai “Guardian of The Nation”.

Sekian, terima kasih.



**Prof. Datuk Dr. Noor Azlan Ghazali**  
Naib Canselor  
Universiti Kebangsaan Malaysia

**TARIKH AKADEMIK 2014-2015**  
**IJAZAH DOKTOR PERUBATAN**

**PROGRAM PENDIDIKAN**  
**TAHUN 1**  
**SESI 2014-2015**

**Semester 1**

TARIKH	MINGGU	AKTIVITI
1 □ 5 Sept 2014	1	Pendaftaran & Minggu Mesra Pelajar (MMP)
8 □ 12 Sept. 2014	1	Minggu Mesra Pelajar Fakulti/Kem PPD
15 Sept. □ 31 Okt. 2014	7	Sesi Pembelajaran
3 □ 7 Nov. 2014	1	<b>CUTI PERTENGAHAN SEMESTER 1</b>
10 Nov. 2014 - 9 Jan 2015	9	<b>Sesi Pembelajaran</b>
12 □ 16 Jan. 2015	1	<b>CUTI ULANGKAJI</b>
19 □ 30 Jan 2015	2	Peperiksaan Akhir Semester 1
3 □ 13 Feb 2015	2	<b>CUTI AKHIR SEMESTER 1</b>

**Semester 2**

TARIKH	MINGGU	AKTIVITI
16 Feb □ 10 April 2015	8	Sesi Pembelajaran
13 □ 17 April 2015	1	<b>CUTI PERTENGAHAN SEMESTER 2</b>
20 April □ 12 Jun 2015	8	<b>Sesi Pembelajaran</b>
15 □ 19 Jun 2015	1	<b>CUTI ULANGKAJI</b>
22 Jun □ 3 Julai 2015	2	Peperiksaan Akhir Semester 2
6 Julai □ 31 Julai 2015	4	<b>CUTI ULANGKAJI SEMESTER 1 &amp; 2</b>
3 □ 14 Ogos 2015	2	Peperiksaan Ulangan Akhir Semester I & II
<b>JUMLAH MINGGU</b>	<b>50</b>	

Catatan:

- \* Cuti Hari Malaysia 16 September 2013 (Selasa)
- Cuti Hari Raya Haji 5 Oktober 2014 (Ahad)
- Cuti Hari Deepavali 23 Oktober 2014 (Khamis)
- Cuti Awal Muharam 25 Oktober 2014 (Sabtu)
- Cuti Tahun Baru Cina 19 & 20 Februari 2015 (Khamis & Jumaat)
- Cuti Hari Raya Puasa 18 & 19 Julai 2015 ( Sabtu & Ahad)

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**Yang Amat Berbahagia Tun Ahmad Sarji Bin Abdul Hamid**

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Tunku Puteri Intan Safinaz binti Tuanku Sultan Haji Abdul Halim Mu'adzam  
Shah**

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Ahli Jemaah Pemangku Sultan Kedah

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Prof. Dr. Norzalita Abd. Aziz  
BBA (UiTM), MBA (Marketing)(UKMalaysia), Ph.D (UMalaya)  
(mulai 1 Julai 2013)

### **Pusat PERMATApintar Negara**

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### **Pusat Jaminan Kualiti**

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### **Muzium Warisan Akademik**

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### **UKM Holdings Sdn. Bhd.**

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## Falsafah, Wawasan, Misi dan Matlamat UKM

### **Falsafah**

Paduan antara iman kepada Allah dengan ilmu yang bermanfaat serta gabungan antara teori dan amal adalah dasar utama bagi perkembangan ilmu, proses pembinaan masyarakat terpelajar dan pembangunan Universiti.

### **Wawasan**

UKM bertekad menjadi Universiti terkehadapan yang mendahului langkah masyarakat dan zamannya bagi membentuk masyarakat dinamis, berilmu dan berakhlak mulia.

### **Misi**

Menjadi universiti terpilih yang memartabatkan Bahasa Melayu serta mensejagatkan ilmu beracuan budaya kebangsaan.

### **Matlamat**

Untuk menjadi pusat keilmuan yang terkehadapan, berteknologi dan berdaya saing yang:

- Memartabatkan Bahasa Melayu sebagai bahasa ilmu;
- Membangun masyarakat dinamis dan berakhlak mulia;
- Mengantarabangsakan citra dan sumbangan UKM bagi masyarakat sejagat; dan
- Menjana teknologi yang bermanfaat kepada masyarakat.

## Latar Belakang Universiti Kebangsaan Malaysia

Cetusan pertama gagasan perlunya pendidikan tinggi untuk orang Melayu berlaku dalam Mesyuarat Majlis Raja-raja pada 1903. Za'ba, seorang cendekiawan, menulis berkenaan gagasan tersebut dalam akhbar Lembaga Melayu pada 1917. Gerakan pemikiran, perdebatan serta tekad golongan cendekiawan Melayu untuk menubuhkan sebuah universiti dan menggunakan bahasa Melayu, bahasa ibunda sebagai bahasa pengantar di institusi pengajian tinggi dalam negara bermula pada 1923 apabila Abdul Kadir Adabi, seorang lagi cendekiawan Melayu mengemukakan memorandum gagasan tersebut kepada DYMM Sultan Kelantan. Namun demikian, pemikiran dan tekad tersebut tidak dapat berkembang dan terlaksana kerana wujudnya berbagai-bagai halangan dan rintangan oleh tekanan kolonialisme.

Mulai 1957 hingga 1967, perjuangan untuk penubuhan universiti kebangsaan menjadi semakin bersemarak sebagai memenuhi tuntutan dan semangat kemerdekaan bangsa dan negara. Sehubungan itu, pada 1968 cendekiawan Melayu telah membentuk sebuah jawatankuasa penaja yang berperanan merancang penubuhan sebuah universiti kebangsaan. Pelbagai forum budaya dan politik diadakan bagi mendapat sokongan kerajaan dan rakyat untuk mewujudkan sebuah institusi pengajian tinggi yang memartabatkan bahasa Melayu sebagai bahasa pengantar dalam semua bidang pengajian dan keilmuan. Perjuangan yang tidak pernah luput itu mencapai kejayaan dengan penubuhan Universiti Kebangsaan Malaysia (UKM) pada 18 Mei 1970. Kumpulan pertama pelajar prasiswazah seramai 192 orang dan dua (2) orang siswazah mula mendaftar di tiga buah fakulti iaitu Fakulti Sains, Fakulti Sastera dan Fakulti Pengajian Islam.

Pada 1974, UKM menubuhkan UKM Kampus Sabah di Kebun Kawang, Papar. Nama Kebun Kawang kemudiannya ditukar kepada Limauan oleh Tun Datu Mustapha Datu Harun yang ketika itu sebagai Ketua Menteri Sabah. Kampus yang menempatkan Fakulti Sains dan Sumber Alam ini berpindah ke Bukit Padang, Kota Kinabalu pada 1980. Seterusnya berpindah ke Menggatal, Tuaran pada 1990 bersama Fakulti Sains Pembangunan yang asalnya ditempatkan di Kampus Induk Bangi. Dengan penubuhan Universiti Malaysia Sabah pada 1994, UKM Kampus Sabah ditutup secara rasminya pada 1996 dan kedua-dua fakulti berkenaan dipindahkan ke Kampus Induk Bangi, Selangor.

Universiti ini terus berkembang pesat sebagai sebuah institusi pengajian tinggi awam terkehadapan yang kini mempunyai tiga belas (13) fakulti dan enam belas (16) institut kecemerlangan penyelidikan. UKM juga mempunyai entiti yang beroperasi secara komersial, iaitu UKM Holdings Sdn. Bhd. sebagai satu pendekatan praktis

dalam memanfaatkan dan memasyarakatkan kepakaran yang dimiliki di samping membantu dalam penjaan kewangan Universiti.

Kampus induk UKM yang mempunyai keluasan 1,096.29 hektar terletak di Bangi, Selangor Darul Ehsan, kira-kira 35 kilometer dari Kuala Lumpur. Kampus Induk Bangi menempatkan sembilan (9) fakulti, dan lima belas (15) institut kecemerlangan penyelidikan. Selain itu, UKM juga mempunyai sebuah kampus di Jalan Raja Muda Abdul Aziz, Kuala Lumpur dengan keluasan 20 hektar yang menempatkan Fakulti Perubatan (Praklinikal), Fakulti Sains Kesihatan Bersekutu, Fakulti Pergigian dan Fakulti Farmasi. Manakala Pusat Perubatan UKM (PPUKM) yang mempunyai keluasan 22.3 hektar di Cheras, Kuala Lumpur menempatkan Fakulti Perubatan, Hospital UKM dan Institut Perubatan Molekul (UMBI).

Sejak 40 tahun penubuhannya, UKM telah menghasilkan 138,671 graduan iaitu 119,104 graduan Sarjana Muda, 17,467 Sarjana dan 1,622 PhD. Peningkatan jumlah pelajar luar negara yang setakat ini berjumlah 4,172 pelajar dari 55 buah negara membuktikan penerimaan global terhadap program dan ekosistem ilmu UKM.

Berasaskan kecemerlangan dalam bidang penyelidikan lebih tiga dekad, UKM dipilih sebagai salah sebuah universiti penyelidikan di Malaysia pada 2006. Proses pementapan bidang penyelidikan disusuli dengan pengwujudan projek-projek tertumpu di bawah lapan (8) nic yang dikenalpasti iaitu Cabaran Membina Negara-bangsa, Pembangunan Lestari Wilayah, Tenaga Keterbaharuan, Teknologi Kesihatan & Perubatan, Perubahan Iklim, Nanoteknologi & Bahan Termaju, Kepelbagaian Biologi dalam Pembangunan Bioteknologi dan ICT: Informatik Isian.

Universiti juga adalah penerima Anugerah Kualiti Perdana Menteri 2006 dan memperolehi status Swa-Akreditasi tahun pada 2010. Penganugerahan ini adalah pengiktirafan bagi kecemerlangan UKM dalam bidang akademik dan pengurusan. Dengan asas yang mantap ini, UKM melestarikan kecemerlangannya melalui Pelan Strategik UKM 2000-2020 (PS2020) dan Pelan Transformasi ke arah universiti terkemuka dunia menjelang 2018.

Kini, UKM tampil dengan citra baru melalui garis tanda “Mengilham Harapan, Mencipta Masa Depan”. Garis tanda ini memberi keyakinan kepada warganya untuk mengembangkan bakat yang dimiliki, tempat memupuk kebolehan, labuhan untuk berkarya dan berjaya dalam karya tersebut, kerana di sini mereka disediakan dengan prasarana untuk memiliki masa depan yang gemilang.

## **Pentadbiran Fakulti**

### **Dekan Fakulti Perubatan & Pengarah Pusat Perubatan UKM**

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Dr. Sivakumar A/L Palaniappan  
MBBS(Manipal)

## **JABATAN PERUBATAN KECEMASAN**

### **Ketua Jabatan**

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MBBChBAO(Ireland), MEMed(UKM)

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## **Pensyarah**

**Prof. Dr. Khairani Omar**

MD(UKM), MMed.(Fam.Med)(UKM), DRM(UPM), Adol Health(Melbourne)

**Prof. Dr. Noor Azah Abd. Aziz**

MD(UM), MMed.(Fam.Med)(UKM), M.Phil(UK)

**Prof. Madya Dr. Leelavathi A/P Muthupalaniappen**

MBBS(Jaipur), MMed.(Fam.Med)(UKM), GDFPD(NUS)

**Prof. Madya Dr. Aznida Firzah Abd. Aziz**

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Dr. Mohd Fairuz Ali  
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Dr. Ezura Madiana Md. Monoto  
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## **JABATAN PSIKIATRI**

### **Ketua Jabatan**

Prof. (Klinikal) Dr. Hatta Sidi  
DipSHC(Australia), MBBS(Malaya), MMed.(Psych)(UKM)

### **Pensyarah**

Prof. (Klinikal) Dr. Abdul Hamid Abdul Rahman  
MD(UKM), MMed(Psych)(UKM), Fellow in Psych(NSW)

Prof. Dr. Maniam Thambu  
MBBS(Malaya), MPsychMed.(Malaya), DipThs(Ext), FAMM

Prof. Madya (Klinikal) Dr. Rosdinom Razali  
MD(UKM), MMed.(Psych)(UKM)

Prof. Madya Dr. Susan Tan Mooi Koon  
MD(UKM), MMed.(Psych)(UKM), DCH(London), Adv.M.Ch.Ado.Psych.(UKM), AM

Prof. Madya Dr. Marhani Midin  
MBBCh.BAO (Dublin), MMed.(Psych)(UKM), MIMH(Australia)

Prof. Madya Dr. Azlin Baharudin  
MD(UKM), MMed.(Psych)(UKM)

Prof. Madya Dr. Nik Ruzyanei Nik Jaafar  
MBBChBAO(Ireland), MMed.(Psych)(UKM)

Prof. Madya (Klinikal) Dr. Wan Salwina Wan Ismail  
MBBS(Adelaide), MMed.(Psych)(UKM), Adv.M.Ch.Ado.Psych.(UKM)

Dr. Fairuz Nazri Abdul Rahman  
MBChB(Glasgow), MMed.(Psych)(UKM)

Dr. Tuty Iryani Mohd Daud  
MBBS(Adelaide), MMed.(Psych)(UKM)

Dr. Chan Lai Fong  
MD(UKM), MMed.(Psych)(UKM)

Dr. Hazli Zakaria  
MBBS(Adelaide), MMed.(Psych)(UKM)

Dr. Suriati Mohamed Saini  
MBBS(Adelaide), MMed.(Psych)(UKM)

Dr. Suzaily Wahab  
MD(UKM), MMed(Psych)(UKM)

Puan Aishvarya A/P Sinniah  
BA(Hons.)(UKM), MA(Clinical Psych)(UKM)

Puan Raynuha A/P Mahadevan  
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Cik Shalisah Sharip  
BA(Hons.)(UKM), MA(Clinical Psych)(UKM)

## **JABATAN RADIOLOGI**

### **Ketua Jabatan**

Prof. Madya Dr. Hamzaini Abdul Hamid  
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### **Pensyarah**

Prof. Dr. Zulfiqar Muhamed Annuar  
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Prof. Madya (Klinikal) Dr. Zahiah Mohamed  
MD(UKM), MMed.(Radiology)(UKM)

Prof. Madya Dr. Ahmad Sobri Muda  
MD(UKM), MMed.(Radiology)(USM)

Prof. Madya Dr. Shahizon Azura Mohamed Mukari  
MBChB(Glasgow), MMed.(Radiology)(UKM)

Prof. Madya Dr. Rozman Zakaria  
MBBS (Queensland), MMed.(Radiology)(UKM)

Dr. Suraya Aziz  
BMed.Sc., BMBS(Nottingham), MMed.(Radiology)(UKM)

Dr. Fazalina Mohd Fadzilah  
MBBCh,BAO(Ireland), MMed.(Radiology)(UKM)

Dr. Norzailin Abu Bakar  
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MBBS(Bangalore), MMed.(Radiology)(UKM)

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MD(UKM), MMed.(Radiology)(UKM)

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### **Ketua Jabatan**

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MBBS(Otago), MS(UKM)

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MBBS(Malaya)

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MD(UKM)

Dr. Soon Bee Hong  
MD(UKM)

Dr. Fam Xeng Inn  
MD(UKM)

## **Penerangan Mengenai Fakulti**

### **Fakulti Perubatan**

#### **Latar Belakang**

Fakulti Perubatan telah ditubuhkan pada 30 Mei 1972 dengan Dekan pertama Dato' Dr. Amir Abas. Tujuan penubuhan Fakulti ini adalah untuk memberi peluang kepada pelajar-pelajar aliran kebangsaan mengikuti kursus perubatan dan dapat melahirkan ramai doktor-doktor Melayu dan tempatan. Fakulti ini memulakan kursus pra-perubatan di Fakulti Sains UKM Jalan Pantai Baharu, Kuala Lumpur pada Mei 1973 dengan pengambilan seramai 44 orang pelajar (39 lelaki dan 5 perempuan). Kursus perubatan praklinikal bermula pada bulan Mei 1974 di bangunan sementara Fakulti Perubatan di Jalan Raja Muda Abdul Aziz dalam Kompleks Hospital Kuala Lumpur. Pada 27 Februari 1975, Menteri Kesihatan Tan Sri Lee Siok Yew telah mengisytiharkan Hospital Kuala Lumpur sebagai Hospital Pengajar Fakulti Perubatan UKM bagi latihan tahun klinikal.

Pada awal penubuhannya, Fakulti Perubatan telah mendapatkan khidmat tenaga pengajar pinjaman dari Indonesia untuk pengajaran praklinikal dan dari negara-negara Commonwealth untuk pengajaran klinikal sementara menunggu pensyarah-pensyarah pelatih UKM kembali dari latihan perubatan di luar negara. Peperiksaan Ikhtisas Akhir Ijazah Doktor Perubatan yang pertama telah diadakan pada 19 hingga 31 Mac 1979 dan daripada 42 orang pelajar yang mengambil peperiksaan, 37 daripadanya telah lulus dan dikurniakan Ijazah Doktor Perubatan. Ini merupakan detik gemilang bagi Fakulti Perubatan khususnya dan UKM amnya kerana telah berjaya mengeluarkan graduan pertama Ijazah Doktor Perubatan. Fakulti juga telah memulakan program sarjana kepakaran perubatan mulai sesi 1981/82 bermula dengan Sarjana Surgeri (Surgeri Am) dan Sarjana Surgeri (Ortopedik) dan diikuti dengan Sarjana Sains Perubatan dan Doktor Falsafah.

Pada awal 1990, Fakulti bercadang menubuhkan hospital pengajarnya sendiri dan pada 2 November 1993 pembinaan Hospital UKM (HUKM) telah dimulakan di tapak seluas 23 hektar di Jalan Tenteram, Bandar Tun Razak, Cheras. Pada 1 Julai 1997 HUKM telah siap dan memulakan operasinya. Pejabat Dekan dan jabatan-jabatan klinikal telah berpindah ke kompleks HUKM sementara jabatan-jabatan praklinikal masih mendiami kampus Jalan Raja Muda Abdul Aziz dan pelajar-pelajarnya menginap di Kolej Tun Dr. Syed Nasir, Jalan Temerloh, Kuala Lumpur; sementara pembelajaran Tahun III, IV, dan V dilakukan di HUKM dan pelajar-pelajarnya menginap di Kolej Tun Dr. Ismail. HUKM mempunyai keluasan lantai 200,000 meter persegi, kos pembinaannya bernilai RM 327,822,000.00 dan boleh menampung 1054 katil pesakit. Fakulti juga menawarkan program-program kejururawatan seperti Sarjanamuda Kejururawatan Dengan Kepujian, Diploma Kejururawatan dan Diploma Lanjutan Kebidanan. Fakulti juga telah mengorak langkah dengan menawarkan program Sarjana Kepakaran Lanjutan seperti Sarjana Lanjutan Dermatologi, Sarjana Lanjutan Kardiologi dan Sarjana Lanjutan Psikiatri Kanak-kanak dan Remaja. Sehingga kini, Fakulti Perubatan telah melahirkan 4423 orang doktor perubatan dan lebih 2100 orang pakar klinikal.

## **Visi**

Untuk menjadi hab akademik perubatan yang terkehadapan dan berdaya saing berteraskan ilmu, inovasi dan pasukan profesional perubatan yang berdedikasi dalam membentuk masyarakat yang sihat dan bermaklumat.

## **Misi**

Untuk memberi pendidikan dalam penyediaan profesional perubatan dan perkhidmatan bermutu tinggi berteraskan penyelidikan dalil perubatan, inovasi dan kepekaan sosial.

## **Objektif**

Program ini dijalankan dengan tujuan untuk melahirkan doktor yang mahir dalam bidangnya. Semasa melaksanakan khidmat utamanya untuk memenuhi keperluan dan tuntutan kesihatan Malaysia, doktor ini akan berupaya :

1. Menggunakan pengetahuan, kemahiran dan memperlihatkan sikap yang diperlukan dengan cekap dan bijaksana.
2. Menceburi mana-mana bidang pengkhususan perubatan yang dipilihnya.
3. Bertugas di mana-mana situasi (hospital, pusat kesihatan dan lain-lain) yang berkenaan.
4. Mengenalpasti dan menganalisis masalah-masalah kesihatan pada tahap individu, keluarga dan masyarakat serta menyelesaikan masalah-masalah ini melalui peningkatan kesihatan pada tahap individu, keluarga dan masyarakat serta menyelesaikan masalah-masalah ini melalui peningkatan kesihatan, pencegahan, penyembuhan dan pemulihan semula dengan menggunakan sumber dengan cermat dan berkesan.
5. Menunjukkan kepekaan terhadap nilai-nilai agama dan moral, adat resam dan tradisi masyarakat serta menghormatinya di mana pun mereka bertugas.
6. Memimpin dan berperanan sebagai ahli pasukan kesihatan yang berkesan.
7. Menerima hakikat bahawa pendidikan perubatan adalah suatu proses yang berterusan seumur hidup.

# IJAZAH DOKTOR PERUBATAN

## 1. CURRICULUM STRUCTURE

The curriculum structure is based on 8 broad outcome domains :

- i. Clinical Skills.
- ii. Scientific Foundation.
- iii. Professional Values & Attitude.
- iv. Population Health.
- v. Critical Thinking.
- vi. Information Management.
- v. Communication Skills.
- vii. Entrepreneurship Skills

## 2. PROGRAMME EDUCATIONAL OBJECTIVES

The objective of this programme is to produce **doctors** who are able to:

1. apply their knowledge and skills in an effective and judicious manner whilst demonstrating an attitude that is appropriate and desirable.
2. function effectively in any healthcare setting (hospitals, healthcare centres, etc.)
3. recognize and analyze health problems at the level of the individual, family and community; and solve these problems through health promotion, disease prevention, treatment and rehabilitation, using the available resources in a cost-effective manner.
4. demonstrate sensitivity towards religious, moral, cultural and traditional values of the community they serve.
5. lead and play an effective role in the healthcare team.
6. pursue any field of specialization of their choice.
7. accept the principle of life-long learning.

## 3. GENERAL OBJECTIVE

This curriculum is designed to train students to apply knowledge and skills effectively in a holistic and professional manner expected of a doctor. It also prepares them to be leaders in the field of medicine in both the local context and the global arena.

## 4. PROGRAMME LEARNING OUTCOMES

By the end of the course students will demonstrate :

1. the ability to apply knowledge and clinical skills to practice safely and competently.
2. a scientific critical approach to problem solving and decision-making.
3. the ability to work collaboratively within a multi-professionals team with integrity and enthusiasm and to assume a leadership role when appropriate.
4. the ability to lead and collaborate with other health professionals in health promotion and disease prevention.
5. a caring attitude and sensitivity to the needs of self, patients and their families, colleagues and the community.
6. the ability to adopt a holistic approach to patient management.
7. effective communication and social skills.
8. ethical, spiritual and moral principles and abide by legal requirements.
9. competency in information and communication technology and its management.
10. the appropriate teaching skills and willingness to educate patients, their families, the community and colleagues.
11. a commitment to life long learning.

## 5. COURSE STRUCTURE

### 5.1 Faculty

#### **Year 1**

##### *Semester I*

- FF1113 Cellular Biomolecules  
FF1213 Tissues of Body  
FF1333 Membranes & Receptors  
FF1412 Metabolism  
FF1713 Personal & Professional Development IA (Adaptation Skills I)

- LMCW2173 Hubungan Etnik*  
*LMCK1331 Komunikasi Efektif*  
*LMCK1531 Kepimpinan & Kreativiti*

*Semester II*

- FF1312 Human Genetics
- FF1244 Infection & Immunity
- FF1223 Mechanisms of Diseases
- FF1424 Musculoskeletal System
- FF1521 Clinical Sciences I (History Taking I)
- FF1622 Medicine & Society I (Health & Population)
- FF1722 Personal & Professional Development IB (Adaptation Skills II)

*LMCK1421 Pemikiran Kritikal & Penyelesaian Masalah*

*LMCK1621 Etika & Profesional*

**Year 2**

*Semester I*

- FF2113 Blood & Lymph
- FF2214 Cardiovascular System
- FF2313 Respiratory System
- FF2433 Urinary System
- FF2511 Clinical Sciences IIA (History Taking II & Physical Examination I)
- FF2613 Medicine & Society II (Statistics & Epidemiology)
- FF2712 Personal & Professional Development IIA (Community Services I)

*LMCW2163 Tamadun Islam & Tamadun Asia*

*LMCK2711 Tanggungjawab Alam Sekitar*

*LMCK2811 Sosial & Kebertanggungjawaban*

*Semester II*

- FF2125 Gastrointestinal System
- FF2242 Endocrine System
- FF2325 Neuro Sciences
- FF2443 Reproductive System
- FF2521 Clinical Sciences IIB (Physical Examination II)
- FF2622 Comprehensive Health Care
- FF2722 Personal & Professional Development IIB (Community Services II)

### **Year 3**

#### *Semester I*

- FF3118 Medicine I
- FF3618 Medicine & Society III (Community Health)
- FF3714 Personal & Professional Development IIIA (Leadership)

#### *Semester II*

- FF3128 Surgery I
- FF3226 Obstetrics & Gynaecology I
- FF3723 Personal & Professional Development IIIB (Teamwork)  
Elective

### **Year 4**

#### *Semester I*

- FF4118 Psychiatry
- FF4212 ORL-HNS
- FF4314 Ophthalmology
- FF4412 Anaesthesiology
- FF4713 Personal & Professional Development IVA
- FF4812 Special Study Module I (Proposal Development & Submission)
- FF4911 Forensic Pathology I

#### *Semester II*

- FF4127 Paediatrics I
- FF4229 Orthopaedics & Traumatology
- FF4723 Personal & Professional Development IVB (Medical Ethics)
- FF4822 Special Study Module II (Ethics Approval & Organization of Data Collection)
- FF4921 Forensic Pathology II

### **Year 5**

#### *Semester I*

- FF5115 Family Medicine
- FF5213 Emergency Medicine
- FF5316 Internal Medicine II
- FF5713 Personal & Professional Development V (Medical Career)
- FF5816 Special Study Module III (Data Collection, Analysis & Report Writing)
- FF5911 Forensic Pathology III

*Semester II*

FF5126 Surgery II  
FF5227 Paediatrics II  
FF5326 Obstetrics & Gynaecology II

Professional Examination

**5.2 CITRA UKM**

**Year 1**

*Semester I*

LMCW2173 *Hubungan Etnik*  
LMCK1331 *Komunikasi Efektif*  
LMCK1531 *Kepimpinan & Kreativiti*

*Semester II*

LMCK1421 *Pemikiran Kritikal & Penyelesaian Masalah*  
LMCK1621 *Etika & Profesional*

**Year 2**

*Semester I*

LMCW2163 *Tamadun Islam & Tamadun Asia*  
LMCK2711 *Tanggungjawab Alam Sekitar*  
LMCK2811 *Sosial & Kebertanggungjawaban*

\* LMCK2922 *Kemahiran Insaniah*

(Pra-syarat: Lengkap sekurang-kurangnya 2 unit Kursus Citra Kompetensi Modul Wajib (LMCK))

## Kursus rentas CITRA UKM

Domain Citra	Fakulti	Tahun 1	Tahun 2	Tahun 3	Tahun 4	Tahun 5	Catatan
Citra 1 ☑ Etika, Kewarganegaraan dan Ketamadunan	Semua Fakulti	Minimum 3 kredit ☑ LMCXXXX atau mana-mana kursus Citra yang ditawarkan oleh Fakulti					Pilihan dan taburan pengambilan kursus ditentukan oleh pelajar sendiri
Citra 2 ☑ Bahasa, Komunikasi dan Literasi	Semua Fakulti	Minimum 3 kredit ☑ LMCXXXX atau mana-mana kursus Citra yang ditawarkan oleh Fakulti					
Citra 3 ☑ Penaakulan Kuantitatif dan Kualitatif	Semua Fakulti	Minimum 3 kredit ☑ LMCXXXX atau mana-mana kursus Citra yang ditawarkan oleh Fakulti					
Citra 4 ☑ Kepimpinan, Keusahawanan dan Inovasi	Semua Fakulti	Minimum 3 kredit ☑ LMCXXXX atau mana-mana kursus Citra yang ditawarkan oleh Fakulti					
Citra 5 ☑ Sains, Teknologi dan Kelestarian	Semua Fakulti kecuali FFAR, FSK, FGG dan FKAB	Minimum 3 kredit ☑ LMCXXXX atau mana-mana kursus Citra yang ditawarkan oleh Fakulti					
Citra 6 ☑ Keluargaan, Kesihatan dan Gaya Hidup	Semua Fakulti kecuali FFAR, FSK, FGG dan FPER	Minimum 3 kredit ☑ LMCXXXX atau mana-mana kursus Citra yang ditawarkan oleh Fakulti					

## 5. 1. Year 1

### General Objectives

By the end of Year 1, students should be able to :

1. explain the structures and functions of biomolecules, cell tissues, human genetics, endocrine changes and metabolism in relation to basic pathological process of common diseases and principles of drug action.
2. differentiate among the various pathogens and their interactions with the host's immunity.
3. apply the principles of history taking, basic life support, aseptic techniques & universal precaution in clinical practice.
4. explain the concepts and principles of community health and its management, related health care services and the effects of globalization on health care.
5. demonstrate skills in problem solving, decision-making, self-management, and teamwork effectively with a caring attitude and sensitivity.
6. apply basic information technology skills in every aspect of their learning.

### Specific Objectives

By the end of Year 1, students should be able to :

1. explain the normal structures and functions of biomolecules, cells and tissues of the body.
2. explain biochemical processes and their regulation in the cells.
3. explain genetic inheritance and mutation and relate their effects on individuals and population.
4. differentiate among the various pathogens and their interactions with the host's immunity.
5. explain the basic pathological processes of diseases.
6. explain the principles of drug actions.
7. explain the concepts and principles of community health and its management, related health care services and the effects of globalization on health care.
8. explain the principles of ecology in relation to human health.
9. perform history taking, basic life support and hand washing.
10. explain the concepts and principles of aseptic techniques and universal precaution in clinical practice.
11. demonstrate self-management and coping skills in the university environment.
12. work effectively as a team member, as well as a team leader.
13. demonstrate caring attitude and sensitivity to the needs of others.
14. demonstrate problem solving, decision-making and IT skills.

## FF1113      CELLULAR BIOMOLECULES

The aim of this module is to describe to the students the structure and function of biomolecules and their role in cellular structure and function. The module will emphasise and relate protein structure to their functions. Enzymes will be introduced as important biocatalysts and as a tool in diagnosis. The synthesis of proteins and its regulation will also be discussed. In addition, the module will discuss the structure of DNA in relation to its function in inheritance and expression of genetic material, differentiate between eukaryotic and prokaryotic processes and explain how these differences can be exploited therapeutically. Several structural abnormalities in biomolecules leading to diseases will also be illustrated. Students will also perform some biochemical tests and be able to relate this to the structure and function of biomolecules.

### References

1. Anne MR Agur, Arthur F Dalley, Keith L Moore. 2013. *Clinically Oriented Anatomy*. 7th Edition. Lippincott Williams and Wilkins, USA.
2. Michael Lieberman & Allan Marks. 2012. *Basic Medical Biochemistry: A Clinical Approach*. 4th Edition. Lippincott Williams & Wilkins, USA.
3. Richard S Snell. 2011. *Clinical Anatomy for Medical Students*. 9th Edition. Lippincott William and Wilkins, USA.
4. Baynes, J. & Dominiczak, MH. 2009. *Medical Biochemistry*. 3rd Edition. Elsevier Health Sciences, UK.
5. Murray R.K., Granner D.K., Mayes PA & Rodwell VW. 2007. *Harper's Biochemistry*. Appleton & Lange, USA.
6. Ferrier DR. 2013. *Lippincott's Illustrated Reviews. Biochemistry*. 6th Edition. Lippincott Williams & Wilkins, USA.
7. Nussbaum RL, Mc Innes RR, Willard HF. 2007. *Genetics in Medicine*. 7th Edition. Elsevier Health Sciences, USA.

## FF1213      TISSUES OF BODY

Continuous medical learning requires an adequate knowledge of the functional unit of all living organism which is the cell. This module helps in learning about the structure of body tissues which is composed of cell. Structure is closely related to function and function of cells can be deduced by careful examination of their components. Together with the knowledge from physiology, biochemistry, pathology and other basic sciences, the study of body tissues can provide a powerful tool in understanding the normal functioning of the body as well as the diseased process. The module aims to enable the students to describe the living body as a cellular system, classify basic tissues and explain their embryological derivation. The knowledge will then be applied in starting the cellular basis of diseases.

## References

1. Liebermans M. and Marks AD. 2013. *Marks' Basic Medical Biochemistry :A Clinical Approach*. 4th Edition. Lippincotts, Williams & Wilkins, USA.
2. Sandler T.W. 2012. *Langman's Medical Embryology*. 12th Edition. Lippincott, Williams & Wilkins, USA.
3. Young B. & Heath J.W. 2006. *Wheater's Functional Histology*. 5th Edition. Churchill Livingstone.
4. Vinay Kumar, Abul K. Abbas, Nelson Fausto, Jon Aster. 2010. *Robbin's Pathologic Basis of Disease*. 8th Edition. Elsevier Saunders, Philadelphia, USA.
5. Keith L. Moore, Arthur F. Dalley, Anne MR Agur. 2013. *Clinically Oriented Anatomy*. 7th Edition. Lippincotts, Williams & Wilkins, USA.

**FF1333 MEMBRANES & RECEPTORS**

Continuous medical learning requires an adequate knowledge of the membrane structure and function of membrane lipids and proteins. This module helps the students to learn about the movement of ions and molecules across membrane, as well as the properties of cell surface and other receptors. By understanding how chemical messengers such as hormones and neurotransmitters influence the activity of cells and organs through their interactions with the receptors, they will appreciate how drugs might modify the action of such chemical messengers. In relation to that, they will learn the fate of drugs in the human body and the mechanisms of drug action and toxicity.

## References

1. Katzung B. G. 2007. *Basic and Clinical Pharmacology*. 10th Edition. Appleton & Lange, McGraw Hill.
2. Sherwood L. 2006. *Human Physiology: From Cells to System*. 6th Edition. Brooks/ Cole Thompson Learning.
3. Barret K, Brooks H, Boitano S & Barman S. 2009. *Ganong's Review of Medical Physiology*. 23rd edition. McGraw-Hill Medical.
4. Baynes JW & Dominiczak MH. 2009. *Medical Biochemistry*. 3rd Edition. Mosby International Ltd.
5. Lieberman MA & Marks A. 2008. *Marks' Basic Medical Biochemistry: A Clinical Approach*. 3rd Edition. Lippincott Williams & Wilkins.
6. A. Goodman & Gilman; *The Pharmacological Basis of Therapeutics*. 2006. 11th edition. Brunton L, Chabner BA, Knollmann BC (eds). McGraw Hill, New York.
7. Kalant H, Grant D & Mitchell JD. 2006. *Principles of Medical Pharmacology*. 6th edition. Oxford University Press, Oxford.
8. Richard S Snell. 2000. *Clinical Anatomy for Medical Student*. 6th Edition. Lippincott Williams and Wilkins Publications.

9. B Young, JS Lowe, A Stevens, JW Heath and Deakin PJ. 2006. *Wheater's Functional Histology - A Text and Colour Atlas*. 5th Edition. Churchill Livingstone Publication.
10. Murray RK, Granner DK, Mayes PA, Rodwell VW. 2006. *Harper's Illustrated Biochemistry*. 27th Edition. A Lange Medical Book. Prentice - Hall International. Inc. USA.

## **FF1412      METABOLISM**

The aim of this module is to describe the basic knowledge on biochemical process in cells with regards to synthesis, degradation, storage, utilization and inter-conversion of sugar, amino acids, fatty acids and their role in energy expenditure to the students. The importance of balanced diet and regulation of body weight in terms of the balance between energy intake and expenditure will be discussed. Students will also perform some simple biochemical tests which are related to carbohydrate metabolism.

### References

1. Marks A.D. & Liebermanns M. 2013. *Mark's Basic Medical Biochemistry: A Clinical Approach*. 4th Edition. USA: Lippincott Williams & Wilkins.
2. Baynes, J & Dominiczak, MH. 2005. *Medical Biochemistry*. 2nd Edition. Elsevier Mosby Publisher, London, UK.
3. Gillham B, et. al. 2001. *Will's Biochemical Basis of Medicine*. 3rd Edition. Arnold Publisher.
4. Murray RK et. al. 2007. *Harper's Biochemistry*. 29th Edition. Prentice Hall Int.
5. Harvey RA and Ferrier DR. 2011. *Lippincott's Illustrated Reviews. Biochemistry*. 5th Edition. Lippincotts Williams and Wilkins Publications, Pennsylvania. USA.
6. Devlin TM. 2007. *Textbook of Biochemistry with Clinical Correlations*. 6th Editions. Wiley - Liss.
7. B.G. Katzung, S.B. Masters, A. J. Trevor. *Basic and Clinical Pharmacology*. 12th Editions. Lange Basic Science, McGraw Hill - Medical, California.

## **FF1713      PERSONAL & PROFESSIONAL DEVELOPMENT IA (ADAPTATION SKILLS I)**

It is essential to facilitate the student's personal and professional development in holistic and comprehensive manner. In this module, student would be introduced to the major components of the Personal and Professional Development strand, mainly to facilitate the students' adaptation to university life and to the medical school in

particular. Students will also be introduced to skills in teamwork and leadership, communication skills, spiritual awareness, critical thinking and decision-making skills.

#### References:

1. Jacalyn Duffin. 1999. *History of Medicine: A Scandalously Short Introduction*. University of Toronto Press. Toronto.
2. Bill Scott. 1995. *The Skills of Communicating*. Jaico Publishing House, Mumbai.
3. Ros Jay. 2003. *How To Build A Great Team*. Prentice Hall, London.
4. Charles J. Margerison. 2002. *Team Leadership*. Thomson, London.
5. Edward De Bono. 1985. *Six Thinking Hats*. Back Bay Book, New York.
6. David L. Dotlich, James L. Noel & Norman Walker. 2004. *Leadership Passages: The Personal and Professional Transitions That Make Or Break A Leader*. Jossey-Bass, San Francisco.
7. Stephen D. Brookfield. 1987. *Developing Critical Thinkers: Challenging Adults To Explore Alternative Way of Thinking and Acting*. Jossey-Bass, San Francisco.
8. Janet Donald. 2002. *Learning To Think: Disciplinary Perspective*. Jossey-Bass, San Francisco.
9. Elliot, Kratochwill, Littlefield Cook, Travers. 2000. *Educational Psychology*. 3rd Editions. McGraw Hills.
10. Hettler B. 1984. *Wellness: Encouraging A Lifetime Pursuit Of Excellence Health Values*, 8(4): 13-17.

## FF1312 HUMAN GENETICS

The aim of this module is to present the principles of inheritance and communicate an understanding of the origin and amount of genetic diversity. Students will learn about the causes of mutation and how these mutations can lead to disease. The molecular mechanisms of genetic diseases will be learned and how these may affect patients individually and in discrete populations. Students will also be exposed to the principles and applications of recombinant DNA technology.

#### References

1. Turnpenny, P., & Ellard, S. 2011. *Emery's Elements of Medical Genetics* 14th Edition. Elsevier Churchill Livingstone.
2. Cummings, M.R. 2011. *Human Heredity: Principles and Issues* 9th Edition Thomson, Brooks and Cole
3. Jorde, L.B., Carey, J.C., Bamshad, M.J., White, R.L. 2009. *Medical Genetics*. 4th edition. Mosby Inc.
4. Korf, B.R. 2000. *Human Genetics and Genomic: A problem based application* 2nd edition. Blackwell Science.

5. Nussbaum, R.L., McInnes, R.R., Willard, H.F. 2009. *Thompson and Thompson Genetics in Medicine*. 6th edition. Saunders.
6. Gardner, R.J.M., Sutherland, G.R. 2004. *Chromosome Abnormalities and Genetic Counselling 3rd edition*. Oxford University Press.

## FF1244      INFECTION & IMMUNITY

The aim of this module is to enable the students to acquire the fundamental knowledge of a wide range of organisms that are pathogenic to man. The scope includes introduction to classification of microorganisms (such as helminthes, protozoa, fungi, bacteria and viruses), their genetics, virulence factors, pathogenesis and laboratory identification of these microorganisms from clinical specimens. This module also emphasizes the importance of the role of host's immune system (cellular and humoral) in protecting the body from the invading pathogens. The components of the immune system and the mechanisms of immune response will be covered and the consequences of an abnormal immune response will be briefly introduced. A basic understanding of the antigen-antibody reactions *in vivo* and *in vitro* is also covered.

Despite the availability of many new antibiotics, there are few instances where antimicrobial therapy fails to combat the pathogens. This module will enable the students to know the appropriate use of antibiotics and its mechanism of action. They will also understand the different mechanisms how the pathogens can successfully evade the immune system and develop antibiotic resistance. Relevant to the education of future doctors in Malaysia, the students will be taught the basics of the various types of infectious diseases and medical entomology. In addition, the elementary aspects of some emerging diseases of non-human origin will be introduced to raise the awareness to their importance. Where relevant, the basic principles of host-pathogen relationship, epidemiology, control and prevention strategies will be highlighted. This is to provide a foundation for the students understanding of the common types of infectious diseases to be learned in the forthcoming systemic modules respectively.

### References

1. Levinson, W. 2010. *Review of Medical Microbiology and Immunology*. 11th edition. McGraw-Hill.
2. Arora, D.R. & Arora, B.B. 2010. *Medical Parasitology*. 3rd edition. CBS Publisher & Distributor Pvt. Ltd. India
3. Noor Hayati Mohd Isa. 2004. *Atlas Berwarna Parasitologi Perubatan*. 2nd edition. NHMIKBM Enterprise.
4. Jayaram Paniker CK. 2006. *Textbook of Medical Parasitology*. 6th Edition. New Delhi: JAYPEE Brothers Medical Publishers.
5. Katzung BG. 2009. *Basic & Clinical Pharmacology*. 11th Edition.

## FF1223      MECHANISMS OF DISEASES

The module aims to provide an introduction to basic pathological processes which will help students to understand the diseases of the organ systems. Appreciation of the mechanisms and characteristics of the principle types of disease processes facilitates an understanding of the symptoms with which patients present, the physical signs which they demonstrate and the abnormal investigation results. It will also allow an appreciation of how various therapeutic interventions affect disease processes. In this module students shall learn through concept lectures, practicals, Problem-Based Learning (PBL) packages and Directed Student Learning packages (DSL). The lectures shall include the following aspects: classification, pathogenesis of diseases, morphological features as well as clinical correlations. In each lecture, the scope of learning is outlined in the guidebook as seen in the content and specific objectives of each topic. Students are expected to acquire their knowledge through reading of suggested textbooks and recommended websites.

### References

1. Lakhani SR, Dilly SA, and Finlayson CJ. 2009. *Basic Pathology: An introduction to the mechanisms of disease*. 4rd Edition, Arnold, London.
2. Kumar V, Cotran RS and Robbin SL (Eds). 2007. *Robbins Basic Pathology*. 8th Edition, Saunders, Philadelphia.
3. Underwood JCE (Ed) and Cross SS. 2009. *General and Systemic Pathology*. 5th Edition, Churchill Livingstone, Edinburgh.
4. Reid R, Robert F and MacDuff E. 2011. *Pathology Illustrated*. 7th Edition, Churchill Livingstone, Edinburgh.
5. Katzung BG, Master S and Trevor A. 2009. *Basic & Clinical Pharmacology*. 11th Edition, Appleton & Lange.
6. Levinson W. 2010. *Review of Medical Microbiology & Immunology*. 11th edition. Lange McGraw Hill.
7. Rang HP, Dale MM, Ritter JM and Flower RJ. 2011. *Rang and Dale's Pharmacology*. 7th Edition. Churchill Livingstone.
8. Harvey RA, Clark MA, Finkel R and Rey JA. 2011. *Lippincott's Illustrated Reviews: Pharmacology*. 5th Edition. Philadelphia: Lippincott Williams and Wilkins.
9. Kumar V, Abbas AK, Fausto N and Aster J (Eds). 2005. *Robbins and Cotran Pathologic Basis of Disease: with STUDENT CONSULT Online Access (Robbins Pathology)*. 8th Edition. Philadelphia: Saunders.
10. Website: <http://www.kumc.edu/instruction/medicine/pathology>
11. Website: <http://www.medlib.med.utah.edu/WebPath/webpath.html>
12. Website: <http://www.med.uiuc.edu/PathAtlasf/framer3/path3.html>

## **FF1424      MUSCULOSKELETAL SYSTEM**

The aim of this module is to enable the student to acquire the cardinal principles of structures of the bones, joints, muscles, neurovascular supply and its function. The emphasis on the application of basic knowledge to the common clinical disorders and diseases of the musculoskeletal system will be discussed. In addition, clinical correlations classes in radiology and orthopaedic disciplines will be introduced to enhance the students' knowledge and appreciation to this module. The student shall learn through concept lectures, practicals, Problem-Based Learning packages (PBL) and Self-Learning packages (SLP).

### References

1. Keith L Moore, Arthur F Dalley & Anne MR Agur. 2010. *Clinically Oriented Anatomy*. 6th Edition. Lippincott Williams & Wilkins.
2. Lauralee Sherwood. 2008. *Human Physiology, From Cells to Systems*. 7th Edition. Brookes/Cole. Thompson Learning.
3. Kumar V, Abbas AK, Fausto N & aster J. *Robbins and Cotran Pathologic Basis of Diseases*. 2009. 8th Edition. Saunders. Philadelphia.
4. Keneth J Ryan, C George Ray, Nafees Ahmad, W Lawrence Drew & James J Plorde. 2010. *Sherris' Medical Microbiology : An Introduction to Infectious Diseases*. 5th Edition. McGraw-Hill.
5. Bertram G Katzung B.G. 2007. *Basic and Clinical Pharmacology*. 10th Edition. McGraw-Hill Companies Inc.

## **FF1521      CLINICAL SCIENCES I (HISTORY TAKING I)**

History-taking is an integral component of doctor-patient relationship. Early clinical exposures among students are essential for them to develop awareness to appreciate a patient as an individual in an unfamiliar and stressful situation. Specific skill objectives include proficiency in history-taking. Various teaching-learning methodologies including role-play will further emphasize the need for effective communication skills. In this semester, the student will learn techniques to obtain basic history in adults and special groups like children, women, elderly, disabled patients and in patients who do not communicate well, thus the need for using interpreters or third parties. This module also aims to integrate the teaching of basic sciences with clinical practice by re-visiting the cases and clinical problems learnt in the basic sciences modules.

## References

1. Douglas G, Nichol F and Robertson C 2009. *Macleod's Clinical Examination*, 12th edition. London. Churchill Livingstone
2. Talley N & O'Connor S 2009. *Clinical Examination: A Systemic Guide to Physical Diagnosis*, 6th edition. Churchill Livingstone, Sydney,
3. Swash M, Glynn M. 2007. *Hutchinson's Clinical Methods : An Intergrated Approach to Clinical Practice*, 22nd edition. Edinburgh : Saunders.
4. Murtagh J, 2007. *General Practice*, 4th edition. Australia : McGraw-Hill.
5. Kumar P & Clark M. 2009. *Kumar and Clark's Clinical Medicine*, 7th edition. London : Saunders.

## FF1622      MEDICINE & SOCIETY I (HEALTH & POPULATION)

The module discusses several issues and challenges in the current and future settings in delivering health care services. It combines various disciplines of basic community health in tackling the issues of disease prevention and health care. The module covers topics on psychosocial aspects of disease and comprehensive health care, principle of disease prevention, basic environmental health, principle of health management, basic family health and nutrition. By introducing the principles of community health to the students, it is hoped that they are able to use it in evaluating health problems, to plan and monitor community health activities and to deliver health education to the community.

## References

1. Asma Rahim. 2008. *Principles & Practice of Community Medicine*. New Delhi: Jaypee Brothers Medical.
2. Raihanah Abdullah. 2004. *Kesihatan Keluarga*. PTS Publications & Distributors. Kuala Lumpur.
- 3.. Howard Frunkin. 2005. *Environmental Health from Global to Local*. Jossey – Ban A Wiley Imprint.
4. Smolin, L.A. & Grosvenor, M.B. 2008. *Nutrition: science & applications*. 1st Ed. John Wiley & Sons, Inc., USA.
5. Robbins & Coulter. 2002. *Management*. 7th Edition. Prentice and Hall International Inc.

## **FF1722      PERSONAL & PROFESSIONAL DEVELOPMENT IB (ADAPTATION SKILLS II)**

This module is a continuation of previous FF1712. Being the second module in this strand for the First Year, the required personal and professional skills are further emphasized. The major aim is to further enhance the students' understanding and skills in critical areas in PPD such as adaptation skills, critical thinking, communication skills, teamwork, leadership and spiritual development.

### References:

1. Azizi Ali. 2001. *Millionaires Are From Different Planet*. TrueWealth Sdn. Bhd. Sdn. Bhd. Kuala Lumpur.
2. Azizi Ali. 2002. *The Millionaire In Me*. TrueWealth Sdn. Bhd. Kuala Lumpur.
3. Ros Jay. 2003. *How To Build A Great Team*. Prentice Hall. London.
4. Charles J. Margerison. 2002. *Team Leadership*. Thomson, London.
5. David L. Dotlich, James L. Noel & Norman Walker. 2004. *Leadership Passages: The Personal and Professional Transitions That Make or Break A Leader*. Jossey-Bass, San Francisco.
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7. Bill Scott. 1995. *The Skills of Communicating*. Jaico Publishing House, Mumbai.
8. Dean C. Halverson. 1996. *The Compact Guide to World Religions*. Bethany House Publisher, Michigan.
9. Edward De Bono. 1985. *Six Thinking Hats*. Back Bay Books, New York.
10. Stephen D. Brookfield. 1987. *Developing Critical Thinkers: Challenging Adults to Explore Alternative Ways of Thinking and Acting*. Jossey-Bass, San Francisco.
11. Elliot, Kratochwill, Littlefiled Cook, Travers. 2000. *Educational Psychology*. 3rd Edition. McGraw-Hill.

## 5.2 YEAR 2

### General Objectives

By the end of Year 2, students should be able to :

1. explain the structures and functions of, the pathological process, effects and complications of common diseases in the musculoskeletal, blood and lymph, cardiovascular, respiratory, gastrointestinal, urinary, reproductive and nervous systems and the principle of drug action.
2. perform history taking, physical examination and basic clinical procedures.
3. interpret results of basic laboratory investigations in the diagnosis of common diseases.
4. compare and contrast the approaches used in the health care services, in the provision of comprehensive and holistic care to patients, families and the community, as well as groups with special needs and those related to occupational and environmental problems.
5. apply critical thinking, demonstrate leadership, effective communication skills, basic principles of religious and cultural values in dealing with patients, colleagues and the community.
6. demonstrate the ability to utilize various resources to obtain relevant and current information.

### Specific Objectives

By the end of Year 2, students should be able to :

1. describe the anatomy and explain the physiology of the following organ systems :
  - i. Musculoskeletal system
  - ii. Blood and lymph
  - iii. Cardiovascular system
  - iv. Respiratory system
  - v. Gastrointestinal system
  - vi. Urinary system
  - vii. Reproductive system
2. discuss the aetiology, pathological processes, effects and complications, and describe the pathological changes of common diseases affecting them.
3. perform physical examination of the above organ systems in a normal person as well as take his/her history.
4. interpret the results of basic laboratory investigations in the diagnosis of common diseases of the above organ systems.

5. discuss the pharmacology of different drugs used in the treatment of diseases of the above organ systems.
6. compare the different approaches used in health care services for patient, family and the community.
7. apply basic principles of epidemiology and statistics in conducting small research.
8. apply basic principles of a comprehensive and holistic approach in health care.
9. describe basic principles of health care services and health programme for groups with special needs such as mothers, children and workers.
10. discuss the risk factors, problems and preventive approaches related to occupational and environmental health.
11. perform the following basic clinical procedures :
  - i. Venepuncture
  - ii. Dressing
  - iii. Blood pressure measurement
  - iv. Catheterization
12. recognize basic teachings of various religions and apply universal, spiritual and humanistic values in self development and interpersonal interaction.
13. demonstrate critical thinking in the learning process.
14. demonstrate the ability to work collaboratively in a team as well as the ability to lead.

## FF2113      BLOOD & LYMPH

The module aims to enable students to acquire basic knowledge on the normal blood cell production and also the mechanisms and pathophysiology of common blood and lymphoreticular disorders. It will also facilitate the student to understand the signs and symptoms of these common blood disorders and enable them to interpret the relevant investigation results for the diagnosis of these disorders. The module will also cover the principles of blood grouping and transfusion and the basic principles of stem cell transplantation. In this module students shall learn through concept lectures, practicals, Problem-Based Learning packages (PBL), and Directed Student Learning packages (DSL). The scope of learning is outlined in the guidebook as shown in the content and specific objectives of the topics. Students are expected to further acquire their knowledge through reading suggested textbooks and websites.

### References

1. Ramzy S. Cotran, Vijay Kumar, Stanley L. Robbins. 2003. *Robbins Pathologic Basis of Disease*. 7th Edition. Saunders, Philadelphia.
2. Hoffbrand, A.V., Pettit, J.E., Moss, P.A.H. 2006. *Essential Haematology*. 5th Edition. Blackwell Science.
3. Hoffbrand, A.V., Pettit, J.E. 2002. *Clinical Haematology Illustrated*. Churchill Livingstone
4. Lewis S.M., Baon B.J., Bates I. 2006. *Dacie and Lewis Practical Haematology*. 10th Edition. Churchill Livingstone.
5. Noor Hayati Md Isa. 2004. *Atlas Berwarna Parasitologi Perubatan*. Edisi Ke-2. NHHMIKBM Enterprise, Kuala Lumpur.
6. Parakrama Chandrasoma, Clive R. Taylor. 2002. *Concise Pathology*. 4th Edition. Appleton and Lange.
7. Martin R Howard, Peter J Hamilton. 2002. *Haematology, An Illustrated Colour Text*. Churchill Livingstone.
8. Katzung BG. 2004. *Basic and Clinical Pharmacology*. 9th Editions. Appleton and Lange, McGraw Hill, Norwalk. Connecticut/Los Altos California.
9. CK Jayaram Paniker. 2004. *Textbook of Medical Parasitology*. 5th Edition. Jaypee Brothers Medical Publishers, New Delhi.
10. Arora DR and Arora B. 2001. *Medical Parasitology*. CBS Publishers and Distributers, New Delhi.
11. Sallehuddin Sulaiman. 1999. *Entomologi Perubatan*. Penerbit Universiti Kebangsaan Malaysia, Bangi.
12. Roitt I, Brostoff J and Male D. 2001. *Immunology*. 6th Edition. Gower Medical Publishing, London.
13. Kenneth J Ryan and C George Ray. 2004. *Sherries Medical Microbiology. An Introduction to Infectious Diseases*. 4th Edition. McGraw Hill.
14. Website: [www.BloodMed.com](http://www.BloodMed.com)

## FF2214      **CARDIOVASCULAR**

The aim of this module is to enable the student to acquire the knowledge of the structure and functions of the cardiovascular system. This module provides an introduction to common cardiovascular diseases and to describe the pathophysiological changes that occur with the disease process. It also enables the student to acquire knowledge on the underlying mechanisms and the principles of management of common diseases of the cardiovascular system.

### References

1. Longo, Fauci, Kasper and Hauser. 2012. *Harrison's Principles of Internal Medicine*. 18th Edition. McGraw Hill, New York.
2. Goodman and Gilman. 2010. *The Pharmacological Basis of Therapeutics: Hardman and Limbird*. 12th Edition. McGraw Hill New York.
3. Katzung and Masters. 2012. *Basic and Clinical Pharmacology*. 12 Edition. Lange/McGraw Hill.
4. Rang & Dale's *Pharmacology*. 2011. 7th Edition. Churchill Livingstone, London.
5. Cotran, Kumar, Collins. 2009. *Robbin's Pathologic of Disease*. 8th Edition. WB Saunders Company.
6. Reid et. al. 2011. *Pathology Illustrated*. 4th Edition. Churchill Livingstone.
7. Lauralee Sherwood. 2012. *Human Physiology, from cell to Systems*. 8th Edition. Brookes/Cole. Thompson Learning.
8. Barret et. al. 2012. *Ganong's Review of Medical Physiology*. 24th Edition. Lange Medical Books/McGraw-Hill Medical Publishing Division, New York.
9. B. L. Chia. 1999. *Clinical Electrocardiology*. 3rd Sub Edition. World Scientific.
10. Keith L Moore, Arthur F Dalley. 2009. *Clinically Oriented Anatomy*. 6th Edition. Lippincott Williams & Wilkins.
11. Richard Snell. *Clinical Anatomy for Medical Students*. 7 Edition. Lippincott Williams & Wilkins.
12. Young et. al. 2006. *Wheater's Functional Histology - A Text and Colour Atlas*. 5th Edition. Churchill Livingstone Publication.
13. TW Sadler. *Langman's Medical Embryology*. 12th Edition. Lippincott Williams & Wilkins.

## FF2313      **RESPIRATORY**

The aim of this module is that the students should be able to understand the structure of the respiratory system and relate the structure to its functions. The knowledge of basic sciences obtained in year 1 such as infection and immunity, the mechanism of diseases and the pharmacokinetics of drugs will help students to understand the diseases commonly affecting the respiratory system and the drugs used in respiratory diseases.

## References

1. Barret, K.E., Barman, S.M., Boitano, S. & Brooks H. 2010. *Ganong's Review of Medical Physiology*. 23rd Edition. USA : McGraw Hill
2. Katzung, B.G. 2004. *Basic and Clinical Pharmacology*. 9th Edition. Norwalk : McGraw Hill
3. Nabishah Mohamad. 2006. *Fisiologi Pernafasan: Pendekatan Berasaskan Masalah*. Penerbit Universiti Kebangsaan Malaysia, Bangi.
4. Murray P.R., Rosenthal K.S., Kobayashi G.S. & Pfaller M.A. 2002. *Medical Microbiology*. 4th edition. USA: Mosby.
5. Richard Snell. 2000. *Clinical Anatomy for Medical Students*. 7th Edition. USA : Lippincot Williams & Wilkins.
6. Cotran, Kumar, Collins, Colins. 1999. *Robbins Pathologic Basis of Diseases*. 6th Edition. USA: WB Saunders Company.
7. Lauralee Sherwood. 2001. *Human Physiology: From Cells to System*. 4th Edition. USA: Brooks/Cole Thomson Learning.
8. Murray R.K., Granner D.K., Mayes P.A. & Rodwell, V.W. 1996. *A Lange Medical Book Harper's Biochemistry*. 24th Edition. USA: Prentice Hall International Inc.
9. Walter and Israel. 1996. *General Pathology*. 7th Edition. Connecticut: Appleton & Lange.
10. Young B & Heath J.W. *Wheather's Functional Histology*. 5th Edition. Churchill Livingstone.
11. Sadler TW. *Langman's Medical Embryology*. 9th Edition. Lippincott Williams & Wilkins.

## FF2433 URINARY SYSTEM

The aims of this module are, first, the students should have sufficient knowledge of macroscopic and microscopic structure of the urinary tract system in order to understand the normal function and common clinical problems. Second, that the students should appreciate the role of the kidney in controlling the volume and composition of body fluid and the way in which they respond to abnormal volume, electrolyte concentration and systemic haemodynamics. Third, students should understand as much detail of renal cellular function as well as allow them to appreciate the basis of relevant therapeutics. Fourth, students should be able to describe normal micturition, the reasons for oliguria, and such common conditions as glomerulonephritis, pyelonephritis, urinary tract infection, urinary calculi, haematuria, proteinuria and acute and chronic renal failure.

## References:

1. Ganong WF. *Review of Medical Physiology*. 21st Edition. Appleton-Lange Medical Books/ McGraw Hill, Medical Publishing Division, NY.

2. Richard Snell. *Clinical Anatomy for Medical Students*. 7th Edition. Lippincot Williams & Wilkins.
3. Murray RK, Granner RK, Mayers PA, Rodwell VW. *Harpes Biochemistry*. 25th Edition. Prentice Hall International. USA.
4. B. Young, JW Heath. *Wheather's Functional Histology*. 4th Edition. Churchill Livingstone.
5. TW Sadler. *Langman's Medical Embryology*. 12th Edition. Lippincot William & Wilkins.
6. James A Perkins. 2003. *Robbins Basic Patology (Edited by) Vinay Kumar, Ramzi S Cotran, Stanley L Robbins with illustration*. 7th Edition. Saunders.
7. Govan et. al. 1999. *Pathology Illustrated*. 5th Edition. Churchill Livingstone.
8. Parakrama Chandrasoma. *Concise Pathology*. 3rd Edition. Stamford, Appleton and Lange.
9. William J Marshall & Stephen K Bangert. 2007. *Clinical Chemistry*. 6th Edition. Churchill Livingstone.
10. Keneth LN et. al. *Sherris Medical Microbiology*. 3rd Edition. Appleton & Lange.
11. Stites et. al. *Medical Immunology*. 10th Edition. Langen.
12. BG Katzung. *Basic and Clinical Pharmacology*. 7th Edition. Appleton & Lange.
13. Goodman and Gilman MacMillan. *The Pharmacological Basis of Therapeutics*. 10th Edition.
14. WB Saunders. 2002. *Kumar and Clark Clinical Medicine*. 5th Edition.
15. Devlin, TM. *Textbook of Biochemistry with Clinical Correlations*. 4th Edition. A John and Wiley and Sons Publication Inc, New York.
16. Goering et. al. *Mim's Medical Microbiology*. 4th Edition. Elsevier.
17. Website: [www.bartleby.com/107/253.html](http://www.bartleby.com/107/253.html)
18. Website: [www.medlib.med.utah.edu/WebPath/webpath.html](http://www.medlib.med.utah.edu/WebPath/webpath.html)
19. Website: [www.med/uiuc.edu/PathAtlasf/framer3/path3.html](http://www.med/uiuc.edu/PathAtlasf/framer3/path3.html)

## **FF2511 CLINICAL SCIENCE MODULE**

This module is to provide the students with a complete approach to history taking and physical examination of the cardiovascular and respiratory system. The students will revise history taking which they have learnt in the first year, this time focusing on features and presentations which are typical to cardiovascular and respiratory systems. This will be followed by learning to perform physical examination systematically. Besides, the students will also learn some basic clinical procedures related to cardiovascular and respiratory systems which will enhance their learning during the year and in subsequent clinical years. Their learning will be further reinforced by learning on how to interpret normal radiographic images of the two systems.

## References:

1. Douglas G, Nichol F and Robertson C. 2009. *Macleod's Clinical Examination*. 13th Edition. Churchill Livingstone.
2. Talley N and O'Connor S. 2010. *Clinical Examination: A Systemic Guide to Physical Diagnosis*. 6th Edition. Elsevier
3. Glynn M, Drake WM. 2012. *Hutchinson's Clinical Method: An Intergrated Approach to Clinical Practice*. 23rd Edition. WB Saunders.
4. CD 'Physical Examination of the Cardiovascular System' FPUKM
5. CD 'Physical Examination of the Respiratory System' FPUKM
6. CD 'General Examination' FPUKM

### FF2613 MEDICINE AND SOCIETY MODULE

The module discusses the concept of control and prevention of communicable and non-communicable diseases. Attention is specifically given to the programmes and services of disease control that has become the public health problem in Malaysia. This module also introduces basic demography including important statistics, fertility data, population expansion and life table. Basic knowledge on occupational safety and health, as well as hazard assessment and control measures at the workplace are also explored. The students will be exposed to the existing occupational safety and health acts and regulations in Malaysia, as well as the occupational accident prevention programmes and the occupational injury compensation legislation. This module also introduces the students to the technique of conducting research from proposal preparation and data collection until data analysis and report writing. Basic statistical techniques such as descriptive statistics and inferential statistics will be introduced to the students as they conduct their research.

## References:

1. Mausner, J.S. & Bahn. 1985. *Epidemiology - An Introduction Text*. WB Saunders Company, Philadelphia.
2. Osman Ali. 1990. *Kaedah Epidemiologi*. Dewan Bahasa dan Pustaka, Kuala Lumpur.
3. Md. Idris Mohd. Noor. 1997. *Asas Statistik dan Penyelidikan Perubatan*. Edisi ke-2. Dewan Bahasa dan Pustaka.
4. Chan Y.H., 2003 - 2005. *Basic Statistics for Doctors Series*. Singapore Medical Journal. Freely available from <http://www.sam.org.sg/smj/>
  - o 101 : Data Presentation (June 2003)
  - o 102 : Quantitative Data - Parametric & Non-Parametric Tests (August 2003)
  - o 103 : Qualitative Data - Tests of Independence (October 2003)
  - o 104 : Correlational Analysis (December 2003)

- o 201 : Linear Regression Analysis (februari 2004)
5. Swinscow, T.D.V. 2001. *Statistics at Square One*. 10th Ed. BMJ Publishing Group. Freely available from <http://www.bmj.com/collections/statsbk/>
  6. Blog at <http://drtamil.wordpress.com>
  7. Facebook Group at <https://www.facebook.com/groups/ms2.2014>
  8. Slideshares at <http://www.slideshare.net/drtamil>

## **FF2712      PERSONAL & PROFESSIONAL DEVELOPMENT IIA (COMMUNITY SERVICES I)**

The aims of this module are to further develop the student's total approach to the learning and practice of medicine which includes information technology. There will be more emphasis on health issues facing the community. Student's ability to adapt life as a medical student is also revisited and reviewed.

### References:

1. Bill Scott. 1995. *The Skills of Communication*. Mumbai. Jaico Publishing House.
2. Dean C. Halverson. 1996. *The Compact Guide to World Religions*. Bethany House Publisher, Michigan
3. Stephen D. Brookfield. 1987. *Developing Critical Thinkers: Challenging Adult to Explore Alternative Ways of Thinking and Acting*. Jossey-Bass, San Francisco
4. Donald, J. 2002. *Learning To Think : Disciplinary Prespective*. San Francisco. Jossey Bass Publishers.

## **FF2125      GASTROINTESTINAL SYSTEM**

The aim of this module is to guide the students in understanding and learning the development (embryology), structure, relation, radiology and histology (anatomy), functions (physiology) and metabolisms (biochemistry) of gastrointestinal tract and hepatobiliary system. It also emphasizes on the pathological aspects in terms of epidemiology, aetiology, pathogenesis, clinical manifestations (pathology, microbiology and parasitology) and basic principles of management and control (pharmacology & public health) of gastrointestinal diseases and infections.

### References:

1. Long, M.S. & Cheshire, E. 2002. *Gastrointestinal System*. 2nd Edition. Mosby, London.

2. Netter, F.H. 2003. *Atlas of Human Anatomy*. 3rd Edition. New Jersey: Icon Learning System.
3. Devlin, T.M. 1997. *Textbook of Biochemistry with Clinical Correlations*. 4th Edition. New York: John Wiley & Sons Inc. Publications.
4. Neva, F.A. & Brown, H.W. 1994. *Basic Clinical Parasitology*. 6th Editions. Connecticut: Prentice-Hall International Inc.
5. Heelan, J.S. & Ingersoll, F.W. 2002. *Essentials of Human Parasitology*. USA: Delmar Thompson Learning.
6. Zaman, V. & Keong, L.A. 1994. *Handbook of Medical Parasitology*. 3rd Edition. Singapore: KC Ang Publication Pte Ltd.
7. Ganong, W.F. 2005. *Review of Medical Physiology-From Cells to Systems*. 4th Edition. USA: Brooks/Cole Thompson Learning.
8. Guyton, A.C. & Hall, J.E. 1996. *Textbook of Medical Physiology*. 9th Edition. Pennsylvania: WB Saunders Co.
9. Vander, A.J., Sherman, J.H.P. & Luciano, D.S. 1998. *Human Physiology-The Mechanisms of Body Functions*. 7th Edition. McGraw-Hill.

## **FF2242      ENDOCRINE SYSTEM**

The aim of this module is to enable the students to acquire basic knowledge on the endocrine system which include the anatomy of the endocrine glands, the hormones they secrete including their synthesis and degradation, mode of action and regulation of their secretion and also the mechanisms and pathophysiology of common endocrine disorders. It will also facilitate students to understand the signs and symptoms of these common endocrine disorders and enable them to interpret the relevant investigation results for the diagnosis of these disorders. The module will also cover the pharmacological management of some common endocrine disorders. In this module, the student shall learn through concept lectures, practicals, and Problem Based Learning packages (PBL).

### References:

1. Katzung B. G. 2009. *Basic and Clinical Pharmacology*. 11th edition, McGraw Hill Lange
2. Cotran, R.S., Kumar, V. & Robbins, S.L. 2005. *Robbin's Pathologic Basis of Disease*. 7th Edition. Philadelphia: Elsevier Saunders.
3. Parakrama Chandrasoma, Clive R.Taylor, 2002. *Consise Pathology*. 4th edition. Appleton and Lange.
4. Willian J Marshall, Stephen K Bangert. 2004. *Clinical Chemistry*. 5th edition Mosby
5. Richard S. Snell. 2004. *Clinical Anatomy for Medical Student* 7th. edition, Lippincotts Williams & Wilkins

6. Smith, C.M., Marks, A.D. & Marks, L.M. 2005. *Basic Medical Biochemistry: A Clinical Approach*. 2nd Edition. Maryland, USA: Williams & Wilkins Publications.
7. Goodman & Gilman's. 2001. *The Pharmacological Basis of Therapeutics*. 10th Edition. New York: McGraw-Hill.
8. Harvey RA, Champe PC, Finkel R, Cubeddu L, Clarke MA. 2008. *Lippincott's Illustrated Reviews*. 2008 Pharmacology. 4th Edition. Williams & Wilkins Lippincotts.
9. Luiz Carlos Junqueira & Jose. *Basic Histology Atlas*. McGraw-Hill.
10. Moore, K.L. & Dalley. A.F. *Clinically Oriented Anatomy*. 5th Edition. Lippincotts Williams & Wilkins.
11. Young, B. & Heath, J.W. 2000. *Wheater's Functional Histology-A Textbook and Colour Atlas*. 4th Edition. Churchill Livingstone Publications.
12. Sadler, T.W. 2004. *Langman's Medical Embryology*. 10th Edition. Lippincotts Willims & Wilkins.
13. Netter, F.H. 2003. *Atlas of Human Anatomy*. 3rd Edition. New Jersey: Icon Learning system.

## **FF2325 NEURO SCIENCES**

The aims of the Neuroscience Module are to provide the medical students, through a study of the structure and the function of the major components of the nervous system, the important connections and the concept of its functions and dysfunctions. They will also gain an insight into the testing and imaging of the nervous system as applied to patients' problems. It will make the diagnostic importance of concepts such as upper and lower motor neurons and peripheral and central divisions of nervous system and the associated lesions more apparent. Besides, examining discrete malfunction of the major elements, the global function of the cerebral cortex and the other parts of the nervous system, is covered with reference to the neurochemistry of the brain. They will also understand common infections of the nervous system including toxoplasmosis, prevention and the drugs used in the treatments. In addition, they will understand the drugs used in the degenerative diseases, drugs of abuse, sedative hypnotics, anaesthetics, anticonvulsants, antidepressants and antipsychotics. Furthermore, the student will understand the common cerebral neoplasia, the effects and complications. Similarly, they will understand the effects of the space occupying lesions in the nervous system.

### References

1. Snell R.S. 2004. *Clinical Anatomy for Medical Students*. 7th Edition. USA : Lippincott Williams and Wilkins Publications.
2. Snell R.S. 2001. *Clinical Neuroanatomy for Medical Students*. 5th Edition. Lippincott Williams & Wilkins Publications.

3. Crossman AR, Neary D. 1997. *Neuroanatomy - An Illustrated Colour Text*. Edinburgh: Churchill Livingstone.
4. Sandler, T.W. 2004. *Langman's Medical Embryology*. 10th Edition. USA: Lippincott Williams & Wilkins.
5. Sherwood, L. 2007. *Human Physiology. From Cells to System*. 6th Edition. USA: Brooks/Cole Thompson Learning.

## **FF2443 REPRODUCTIVE SYSTEM**

The aim of this module is that students should understand the processes of human reproduction from the production of gametes to the establishment of independent life of the neonate. Students should understand common problems and disorders of the male and female reproductive tract, mechanism of contraception and the sexual transmission of infections.

### References

1. Keith L. Moore, Arthur F. Dalley, Anne M.R. Agur. 2010. *Clinical Oriented Anatomy*. 6th Edition. USA: Lippincott Williams and Wilkins.
2. Katzung, BG. 2009. *Basic and Clinical Pharmacology*. 12th Edition. McGraw Hill.
3. Kim Barret, Heddwen L. Brooks, Scott Baitano, Susan M Barman. 2010. *Ganong's Review of Medical Physiology*. 23rd Edition. Lange Basic Science
4. Snell RS. 2004. *Clinical Anatomy for Medical Students*. 7th Edition. Lippincott Williams & Wilkins Publications.
5. Cotran, RS, Kumar V & Robbins SL. 2007. *Robbins Pathologic Basis of Disease*. 8th Edition. Philadelphia: Elsevier Saunders.
6. Young B. Lowe JS, Stevens A & Heath. J.W. 2006. *Wheater's Functional Histology - A Textbook and Colour Atlas*. 5th Edition. Churchill Livingstone.
7. Sandler T.W. 2012. *Langman's Medical Embryology*. 12th Edition. Lippincott Williams & Wilkins.
8. Netter F.H. 2003. *Atlas of Human Anatomy*. 3rd Edition. Icon Learning System.
9. Richard V Goering, Hazel M Dockrell, Mack Zuckerman, Derek Wakelin, Ivan Roitt, Cedric Mims, Peter L Chiodini. 2007. *Mim's Medical Microbiology*. 4th Edition. Elsevier Saunders.

## **FF2521 CLINICAL SCIENCES IIB (HISTORY TAKING III & PHYSICAL EXAMINATION II)**

The aim of this module is similar to the 3rd semester module which is to provide students with a complete approach to history taking and physical examination according to the

body system. Students will continue revising history taking which they have learnt in 1st year while focusing on features and presentations which are typical to the abdominal and the nervous system. This will be followed by learning to perform physical examination of the systems under review systematically. Beside this, the students will also learn to do some basic clinical procedures which will enhance their learning during the year and in subsequent clinical years.

## References

1. Douglas G., Nichol F. & Robertson C. 2009. *Macleod's Clinical Examination*. 13th Edition. Churchill Livingstone.
2. Talley N & O'Connor S. 2010. *Clinical Examination: A Systemic Guide to Physical Diagnosis*. 6th Edition. Churchill Livingstone.
3. Swash M. 2002. *Hutchinson's Clinical Methods*, 21st Edition. WB Saunders, London.
4. Glynn M & Drake WM. 2012. *Hutchinson's Clinical Methods*. 21st Edition. WB Saunders, London.
5. Murtagh J. 2003. *General Practice*. 3rd Edition. McGraw Hill, Australia.
6. UKM (2005) CD audio-visual package on Physical Examination (of the system).

## FF2622 COMPREHENSIVE HEALTH CARE

This module is aimed to introduce the concept of comprehensive health care according to the modern medical principle. It includes the principle of solving health problems at the individual, family and community level. The module discusses the holistic approach in patient management. It also emphasizes on the concept of patient, family and community interactions from the aspect of health. The students will be exposed to the needs of patient with chronic diseases and how it is assessed and managed comprehensively. Functions of health organizations and health facilities at various levels in the community are also discussed.

## References:

1. Reagan, P.A., Brookins-Fisher, J. 2002. *Community Health in the 21st Century*. 2nd Edition. San Francisc: Pearson Education, Inc.
2. Mc Whitney, I.R. Freeman T. 2009. *A Text Book of Family Medicine*. 3rd edition. Oxford University Press.
3. Rakel, R.E. 2007. *Text Book of Family Medicine*. 7th Edition. Philadelphia : Saunders.
4. Taylor, R. 2003. *Fundamentals of Family Medicine : The Family Medicine Clerkship Textbook*. 3rd Edition. Springer Pub. Co.

5. Phoon, W.O. Chen, P.C.Y. 1986. *Textbook of Community Medicine in South East Asia*. Singapore : John Wiley & Sons.
6. Unwin BK, Jerant AF. 1999. *The Home Visit : American Family Physician*. Vol 60 : 1481 - 8

## **FF2722      PERSONAL & PROFESSIONAL DEVELOPMENT IIB (COMMUNITY SERVICES II)**

The aims of this module in the second semester of the second year program are centered on achieving a satisfactory standard of communication skills and to provide guidance for managing diversity. This is primarily because the students will be moving to the clinical years. There is also a need to consolidate their professional judgements and critical thinking skills.

### References:

1. Scott, B. 2004. *The Skills of Communicating*. Mumbai: Jaico Publishing House.
2. Brookfield, S.D. 1991. *Developing Critical Thinkers : Challenging Adults to Explore Alternative Ways of Thinking and Acting*. San Francisco: Jossey-Bass Publishers..
3. Donald, J. 2002. *Learning to Think : Disciplinary Prespective*. San Francisco: Jossey-Bass Publishers.
4. Ethical Code & Guidelines: <http://www.mmc.gov.my>

## 5.3 YEAR 3

### General Objectives

At the end of Year 3, students should be able to:

1. take a complete history, perform a proper physical examination, formulate provisional and differential diagnoses, justify relevant investigations and plan patient management taking into considerations the pathogenesis of diseases; pharmacological principles of drug use; medico-legal aspect; psychosocial, cultural, religious, and ethical values of patients, family and the community.
2. perform basic investigations and procedures.
3. communicate effectively as an individual, a leader and a team member.
4. demonstrate a sense of responsibility in self development and life-long learning ability as a junior doctor.
5. discuss health services provided by district health offices, health clinics and hospitals.
6. make a research proposal, conduct a survey, diagnose the main health problems in the community and perform health promotion activities.

### Specific Objectives

At the end of year 3, students should be able to:

1. demonstrate self-learning and self-independence in acquiring clinical skills and interacting with patients and the community.
2. work effectively as a team member as well as a leader.
3. take clinical history and perform relevant physical examination, taking into consideration the holistic approach in the respective disciplines :
  - 3.1 Medicine.
  - 3.3 Surgery.
  - 3.3 Obstetrics and Gynaecology.
4. formulate provisional and differential diagnoses in the respective disciplines :
  - 4.1 Medicine.
  - 4.2 Surgery.
  - 4.3 Obstetrics and Gynaecology.
5. relate the pathogenesis of disease to the clinical diagnosis.
6. perform basic investigations and procedures.

## FF3118 INTERNAL MEDICINE

The module discusses the clinical approach to the various diseases in medicine. By applying basic and clinical sciences, the students learn through an integrated approach encompassing history taking, clinical examination and principles of patient management in a holistic manner. Students will also be expected to perform simple clinical procedures.

### References

#### Textbooks

1. Christopher H, Edwin RC, John AAH, Nicki C, Nicholas AB. 2002. *Davidson's Principles and Practice of Medicine*, 19th Edition. Churchill Livingstone
2. Nicholas JT, Simon O. 2001. *Clinical Examination: A Systematic Guide to Physical Diagnosis*. 4th Edition. Blackwell Publishers
3. Parveen JK, Michael C. 2005. *Kumar & Clark Clinical Medicine*. 8th Edition. W.B. Saunders Company
4. Anthony SF, Eugene B, Dennis LK, Stephen LH, Dan L.L, Larry JJ, Joseph L. 2008. *Harrison's Principles of Internal Medicine*. 17th edition. The McGraw-Hill Companies Inc.
5. David AW, Timothy MC, John DF, Edward JB. 2005. *Oxford Textbook of Medicine*. 4th Edition. USA: Oxford University Press.

#### Websites

1. [www.medscape.com](http://www.medscape.com)
2. [www.emedicine.com](http://www.emedicine.com)
3. [www.uptodate.com](http://www.uptodate.com)

## FF3618 MEDICINE AND SOCIETY III (COMMUNITY HEALTH)

The Medicine & Society III (MS III) posting is an eight-week (1+7) educational program. There are seven subjects/disciplines covered during the posting:

1. Health and Hospital Management.
2. Family Health.
3. Community Nutrition.
4. Epidemiology and Statistics.
5. Occupational Health.
6. Environmental Health.
7. Health Promotion & Education.

During this posting, the medical students are exposed to health services system and activities provided by the Ministry of Health. They are also required to carry out a community survey by applying their epidemiological and statistical knowledge. The principles guiding the design of the posting stem from the ultimate objective to produce a competent medical doctor professional who will primarily serve the health needs of the Malaysian population. Briefing is given by the Module Head or Assistant Module Head at the beginning of each posting.

## References

1. Sabin C. & Petrie A. 2005. *Medical Statistics at a Glance*. 2nd Edition. Blackwell Publishing USA.
2. Dawson B. & Trapp R.G. 2004. *Basic and Clinical Biostatistics*. 4th Edition. Mc Graw Hill, New York.
3. Chan Y.H., 2003-2005. *Basic Statistics For Doctors Series*. Singapore Medical Journal. Freely available from <http://www.sma.org.sg/smj/>  
 101: Data Presentation (June 2003)  
 102: Quantitative Data - Parametric & Non-Parametric Tests (August 2003)  
 103: Qualitative Data - Tests of Independence (October 2003)  
 104: Correlational Analysis (December 2003)  
 201: Linear Regression Analysis (Feb 2004)
4. Swinscow, T. D. V. 2001. *Statistics at Square One*. 10th Edition. BMJ Publishing Group. Freely available from <http://www.bmj.com/collections/statsbk/>
5. Fox, J.A. 2002. *Primary Health Care of Infants, Child and Adolescent*. St. Louis: Mosby.
6. WHO. 2008. *Primary Health Care - Now More Than Ever*. The World Health Report Geneva.
7. Detels et al. 2009. *Oxford Textbook of Public Health*. Oxford University Press, USA.
8. Robbins & Coulter. 2002. *Management*. 7th Edition. Prentice and Hall International Inc.
9. *Annual Report Malaysia*. 2005, 2006, 2007. Ministry of Health Malaysia, Kuala Lumpur.
10. Hanafiah Mohd. Salleh. 2000. *Family & Health*. Dewan Bahasa dan Pustaka, Kuala Lumpur.
11. Osman Ali. 1990. *Kaedah Epidemiologi*. Dewan Bahasa dan Pustaka, Kuala Lumpur.
12. Md. Idris Mohd. Nor. 1995. *Asas Statistik dan Penyelidikan Perubatan*. Dewan Bahasa dan Pustaka, Kuala Lumpur.
13. Website of MOH: <http://www.moh.gov.my/MOHPortal>
14. Website of WHO: <http://www.who.org>
15. Website of CDC : <http://www.cdc.gov>

## FF3128 SURGERY

The surgical posting in the 3rd year of Universiti Kebangsaan Malaysia medical school is a 7-week posting with emphasis on Professional and Personal Development (PPD) and Self Directed Learning (SDL). The students need to attend the Basic Clinical Programme design at the initial part of the rotation for one week (not include in the 7-week posting). The Department of Surgery is made up of general surgery and related surgical subspecialties such as neurosurgery, urology, plastic and paediatric and cardiothoracic surgery. General surgery is further subdivided into the Breast and Endocrine Unit, Colorectal Unit, Hepatobiliary Unit, Upper Gastrointestinal/Minimally Invasive Surgery (MIS) Unit and Vascular Unit. Each unit is headed by a consultant (usually a Professor/Associate Professor/Senior Lecturer) under whom there is a clinical specialist (lecturer), registrars and medical officers who are usually Master of Surgery (MS) postgraduate students as well as houseofficers. Students are distributed among lecturers in all the units whereby the main aim is exposure to general surgery with a secondary aim of exposure to the subspecialties. Each group will have to go through 2 general surgery subspecialty unit during the 7-week rotation.

### References

1. O.J. Garden, A. W. Bradbury, J. Forsythe. 2002. *Principles and Practice of Surgery*. 4th Edition. Churchill Livingstone, Edinburgh
2. Harold Ellis and Roy Yorke Calne. 1972. *Lecture Notes on General Surgery*. 4th Edition. Blackwell Scientific Publications, Oxford
3. H.G. Burkitt, C.R.G. Quick, D. Gatt. 1990. *Essential Surgery : Problems, Diagnosis and Management*. Churchill Livingstone, Edinburgh
4. Norman L. Browse. 2005. *Symptoms & Signs of Surgical Disease*. 4th Edition. Hodder Arnold, London
5. N.S. Williams, C.J.K. Bulstrode, P.R. O'Connell. 2008. *Bailey & Love's Short Textbook of Surgery*. 25th Edition. Hodder Arnold, London.
6. Website: [www.surgical-tutor.org.uk](http://www.surgical-tutor.org.uk)
7. Website: [www.emedicine.com](http://www.emedicine.com)
8. Website: [www.medicine.ukm.my/e.learning](http://www.medicine.ukm.my/e.learning).
9. MDCConsult (via HUKM library website)

## FF3226 OBSTETRIC & GYNAECOLOGY

The Obstetric and Gynaecology module will take place over 8 weeks per group. Each group size will have between 70-72 students. Students will be expected to participate in all ward, clinic and operating theatre activities to obtain a good overall experience of obstetrics and gynaecology. The teaching components will be made up of concept lectures, tutorials and workshops.

## References

1. Phil Baker, Ash Monga. 2006. *Obstetrics by Ten Teachers*. 18th Edition. Great Britain. Hodder Arnold.
2. Phil Baker, Ash Monga. 2006. *Gynaecology by Ten Teachers*. 18th Edition. Great Britain. Hodder Arnold.
3. Jeremy Oats, Suzanne Abraham. 2004. *Llewellyn-Jones Fundamentals of Obstetrics and Gynaecology*. 8th edition. Great Britain. Mosby.
4. DM Hart, J Norman. 2000. *Gynaecology Illustrated*. 5th Edition. Great Britain. Churchill.
5. Kevin P Hanretty. 2003. *Obstetrics Illustrated*. 6th Edition. Great Britain. Churchill.
6. F. Gary Cunningham, Kenneth J. Leveno, Steven L. Bloom, John C. Hauth, Larry C. Gilstrap III, Katherine D. Wenstrom. 2005. *Williams Obstetrics*. 22nd Edition.
7. Sabaratnam Arulkumaran, V Sivanesaratnam, Alokendu Chatterjee, Pratap Kumar. 2011. *Essentials of Obstetrics*. 2nd Edition.
8. Sabaratnam Arulkumaran, V Sivanesaratnam, Alokendu Chatterjee, Pratap Kumar. 2011. *Essentials of Gynecology*. 2nd Edition.

## **FF3714, FF3723    PERSONAL & PROFESSIONAL DEVELOPMENT IIIA & IIIB**

PPD module is to facilitate adaptation to clinical work and life as future doctors. There is more emphasis given to medical ethics leadership, teamwork and communication skills. The module will also familiarize the students with the uncertain nature of clinical medicine, as well as the unpredictable and varied behaviour of patients.

### **PRINCIPLES OF PPD-CLINICAL INTERGRATION IN YEAR 3**

1. The PPD objectives are clearly defined and applicable to all postings.
2. Certain PPD objectives will be emphasized more in relevant postings.
3. Specific formal sessions for PPD are limited to general lectures only.
4. PPD learning activities need to be relevant and related to the particular clinical posting.
5. Teaching-learning activities would be integrated into the clinical sessions.
6. PPD formal assessment is compulsory. Students must pass PPD module before proceeding to year 4.

## References

1. Paul Ramsden. 2004. *Learning To Teach In Higher Education*. 2nd Edition. New York: Routledge Falmer.

2. Tony Ghaye, Sue Lilyman. 2000. *Reflection: Principles and Practice for Healthcare Professionals*. Dinton: Mark Allen.
3. Asma Abdullah, Paul B. Pedersen. 2003. *Understanding Multicultural Malaysia Delight, Puzzles & Irritations*. Petaling Jaya: Prentice Hall.
4. Frederick W. Platt, Geoffrey H. Gordon. 2004. *Field Guide to the Difficult Patient Interview*. 2nd Edition. Philadelphia: Lippincott Williams & Wilkins.
5. Paul Freeling, Conrad M. Harris Foreword by William A.R. Thomson. 1984. *The Doctor-Patient Relationship*. Edinburgh: Churchill Livingstone.
6. Eileen Scholes. 2003. *Handbook of Communication*. Infinity Books.
7. Harun Yahya. 2003. *The Rise of Islam*. Kuala Lumpur: A.S. Noordeen.
8. David D. Burns, M.D. 1993. *Ten Days To Self-Esteem*. New York: Quill.
9. Michael W. Eysenck. 2004. *Psychology An International Perspective*. New York: Psychology Press.
10. David L. Dotlich, James L. Noel, Norman Walker. 2004. *Leadership Passages*. San Francisco: John Wiley & Sons.
11. Peter Maguire. 2000. *Communication Skills for Doctors*. London: Arnold.
12. Bonnie F. Fremgen. 2002. *Medical Law & Ethics*. Upper Saddle River, N.J: Prentice Hall.
13. Robert M. Veatch. 1997. *Medical Ethics*. 2nd Edition. Boston: Jones and Bartlett.
14. Margaret Llyod and Robert Bor Foreword by Professor Sir David Weatherall. 1996. *Communication Skills for Medicine*. New York: Churchill Livingstone.
15. Suzanne Kurtz, Jonathan Silverman and Juliet Draper Foreword by Barbara Korsch and Sir David Weatherall. 1998. *Teaching and Learning Communication Skills in Medicine*. Oxford: Radcliffe Medical Press.

## ELECTIVE POSTING

The aim of this elective posting is to give the students an opportunity to experience and learn from any humanitarian project of their interest. It is scheduled for a period of 2 weeks (international) or 4 weeks (local) and is to be carried out preferably during their Year 3. However exemptions will be considered for those candidates who had failed any prior modules or have a valid reason to carry out their electives in Year 4. The elective posting may be undertaken in any institution (governmental or non-governmental) locally or internationally. The students are provided with a list of institutions for the students to choose from. However the students may decide to have their placement in any organization outside the given list and it is left to the students to make their own arrangements for their placement. The students may discuss their elective programme choices with the Elective Coordinator or her assistant.

## **5. 4. YEAR 4**

### **General Objectives**

At the end of Year 4, the students should be able to :

1. perform history taking, physical examination, formulate provisional and differential diagnoses, justify relevant investigations and plan patient management utilizing hospital information system, taking into consideration principle of growth and development, needs of patients and their families in relation to emergency, death and dying as well as uncertainties, medico-legal and ethical issues.
2. apply knowledge and skills in forensic medicine competently as to comply with relevant legislation.
3. function as an effective leader and demonstrate a sense of responsibility in self and professional development and life long learning ability as a junior doctor.

### **Specific Objectives**

At the end of Year 4, the students should be able to :

1. demonstrate complete history taking relevant to the respective discipline.
2. perform complete examination relevant to the respective discipline.
3. formulate Provisional Diagnosis and Differential Diagnosis.
4. identify and justify the relevant investigations, cost consideration and interpretations of the result
5. perform common relevant procedures correctly.
6. explain relevant procedures including their indications and complications.
7. differentiate between normal psychological responses and disorders.
8. relate the knowledge of normal growth, physical and emotional development to clinical disorders
9. plan the basic principles in the management of patients in the respective disciplines.
10. apply the pharmacological knowledge of drugs commonly used in terms of efficacy, safety, suitability and cost
11. demonstrate good communication skills appropriate to the situation.
12. explain the impact of illness on the community.
13. recommend health education program to individual, family and community eg immunization, exercise, nutrition and prevention of blindness.
14. apply basic life support (BLS) methods in the appropriate situations and be certified in the Newborn Resuscitation Programme (NRP).
15. explain the needs of patients and their families in relation to difficult situations such as emergencies, dying, death and uncertainties.
16. apply knowledge and skill of forensic medicine (pathology & psychiatry) competently as to comply with relevant legislation.

17. apply knowledge in biomedical science gained in earlier years to the various clinical situations in the respective disciplines
18. evaluate the ethical issues that arise in common clinical situations.
19. plan pre- and postoperative care including postoperative pain relief.

## **F4118            PSYCHIATRY**

This module covers the clinical approach to various syndromes and disorders in psychiatry. By applying basic and clinical sciences, the students learn through an integrated approach of core clinical and PPD components to gain adequate knowledge and skills as well as proper attitude and conduct for a holistic management of patients.

### References

#### A. Textbooks

1. Desk Reference to the Diagnosis Criteria from DSM-5, June 2013, American Psychiatric Association.
2. Cowen, P., Harrison, P., Burns, T. 2012. *Shorter Oxford Textbook of Psychiatry by Gelder*. Oxford University Press, Oxford.
3. Benjamin, J.S., Sadock, V.A., Ruiz, P. 2014. *Kaplan & Sadock's Synopsis of Psychiatry: Behavioral Sciences/Clinical Psychiatry*. 11th Edition. Wolter Kluwer.

#### B. Websites

- <http://www.emedicine.com/med/PSYCHIATRY.htm>
- <http://www.merck.com/mmpe/sec15.html>
- <http://eprints.utas.edu.au/287/>
- <http://www.behavenet.com>

## **FF4212            OTORHINOLARYNGOLOGY**

The 3 weeks posting in year 4 covers the clinical approach to the common diseases in ORL-HNS. By applying biomedical and clinical sciences, the students learn through an integrated approach encompassing history taking, clinical examination and principles of patient management in a holistic manner. Students are expected to perform and observe simple clinical procedures and surgeries.

### References

1. Colman, Bernard H. 1992. *Hall & Colman's disease of the nose, throat and ear, and head & neck handbook for students and practitioners*. 14th Ed. Edinburgh: Churchill Livingstone.
2. Bull PD, Clarke R. 2007. *Lecture notes, Disease of the ear, nose & throat*. 10th Ed. Mass: Blackwell Publishing
3. Stafford ND, Youngs R. 1992. *Colour guide to ENT*. 2nd Ed. Edinburgh: Churchill Livingstone

4. Dhingra PL. 2007. *Disease of Ear, Nose and Throat*. 4th Edition, New Delhi: Elsevier.

Website

1. [www.sciencedirect.com](http://www.sciencedirect.com)
2. [www.UTMB grandround.com](http://www.UTMB_grandround.com)
3. [www.OVID Medline.com](http://www.OVID_Medline.com)

## **F4314           OPHTHALMOLOGY**

This is a three week posting where students will be exposed to the common eye diseases in Malaysia. The module covers the clinical approach to the various diseases in ophthalmology.

References

1. J. Oliver, L. Cassidy, 2005. *Ophthalmology at A Glance*. Blackwell Science Ltd.
2. JJ Kanski, B. Bowling, 2005. *Ophthalmology In Focus*. Elsevier, Churchill Livingstone.
3. Basic Ophthalmology for Medical Students and Primary Care Residents, American Academy of Ophthalmology.
4. J. Bruce, C. Chris, B. Anthony, 2003. *Lecture Notes On Ophthalmology*. 8th Edition. Blackwell Publishing
5. M. Batterrury, B. Bowling, 2005. *Ophthalmology: An Illustrated Colour of Text*. Churchill Livingstone.

## **F4412           ANAESTHESIOLOGY**

This is a 2-week posting where the students will be exposed to the basic principles of both general and regional anaesthesia, which includes the skills of maintaining an airway in an unconscious patient. The knowledge and skills of basic life support resuscitation will also be taught and assessed.

References

1. Gwinnutt, Carl. 2012. *Clinical Anaesthesia (Lecture Notes)*. 4th Edition. Blackwell Publishing Limited.
2. Basic Life Support Course Manual. 2011. *An Introduction to Cardiopulmonary Resuscitation, Basic Airway Management and Defibrillation*. 2nd Edition. UKMMC

## FF4127 PAEDIATRICS

During this 8-week paediatric posting the students will be exposed to various aspects of clinical training in paediatric and neonatology including history taking, physical examination and assessment of developmental milestones.

### References

1. Karen Marcadante, MD, Robert M. Kliegman, MD, Richard E. Behrman. 2011. *Nelson Essential Paediatrics*. 6th Edition. Philadelphia: W.B. Saunders.
2. Lissauer T, Clayden. 2011. *Illustrated Textbook of Paediatrics*. 4th Edition. Edinburgh: Mosby.
3. Arnold & Robertson. 2013. *A Manual of Neonatal Intensive Care*. 5th Edition. London: Hodder&Arnold
4. Hussain Imam Haji Muhammad Ismail, Ng Hoong Phak, Terrence Thomas. 2012. *Paediatric Protocols for Malaysian Hospitals*. 3rd Edition. Kementerian Kesihatan Malaysia
5. Behrman R. E., Kliegman R.M. 2011. *Nelson Textbook of Paediatrics*. 19th. Edition. Philadelphia; W.B. Saunders
6. Clinical Practice Guidelines-Asthma(2004), Dengue(2004), Nephrotic Syndrome(1999).
7. Website of Academy of Medicine: <http://www.acadmec.org.my/html/cpg.htm>
8. [www.mpaeds.org.my](http://www.mpaeds.org.my)

## FF4229 ORTHOPAEDICS & TRAUMATOLOGY

This is an 8 weeks posting where students will be exposed to common orthopedic disorders and orthopedic emergencies. This serves as a preparatory posting before entering the senior clerkship in the final year and eventually nurtures them into competent house-officers.

### References

1. Solomon L, Warwick D, Selvadurai N. 2010. *Apley's System of Orthopaedics and Fractures*. 9th Edition. London : Butterworth-Heinemann
2. Canale S, Beaty J. 2007. *Campbell's Operative Orthopaedics*. 11th Edition. Mosby.
3. Spivak J, Zuckerman J. 1999. *Orthopaedics : A Comprehensive Study Guides*. 10th Edition. McGraw-Hill Companies
4. Apley AG, Solomon L. 1997. *Physical Examination in Orthopaedic*. 1st Edition. London : Butterworth-Heinemann
5. Egol K, Koval K, Zuckerman J. 2010. *Handbook of Fractures*. 4th Edition. Lippincott Williams & Wilkins.

6. Thompson J. 2009. *Netter's Concise Atlas of Orthopaedic Anatomy*. 2nd Edition. Saunders.
7. Reider B. 2004. *The Orthopaedics Physical Exam*. 2nd Edition. Saunders.

#### Website

1. Wheelless' Textbook of Orthopaedic : <http://www.wheelless.com/>
2. AO Surgery Reference : <http://www.aosurgery.org/>

### **FF4713 & FF4723 PERSONAL & PROFESSIONAL DEVELOPMENT YEAR IVA & IVB**

Year 4 PPD module is to facilitate further the development of professionalism in clinical work of medical students as part of the preparation to become future clinicians. There is more emphasis given to emphatic skills in doctor-patient relationship, communication skills, teamwork, leadership, and medical ethics. The module will also familiarize the students with the uncertain nature of clinical medicine, such as the challenge in breaking bad news as well as the unpredictable and varied behavior of patients.

#### References

1. Paul Ramsden. *Learning to Teach in Higher Education*. 2nd Edition.
2. Tony Ghaye, Sue Lilyman. *Reflection : Principles and Practice for Healthcare Professionals*.
3. Asma Abdullah, Paul B. Pedersen. *Understanding Multicultural Malaysia Delights, Puzzles and Irritations*.
4. Frederick W. Platt, Geoffrey H. Gordon. *Field Guide to the Difficult Patient Interview*. 2nd Edition.
5. Paul Freeling, Conrad M. Harris. *The Doctor-Patient Relationship*.
6. *Handbook of Communication* by Infinity Books.
7. Harun Yahya. *The Rise of Islam*.
8. David D. Burns, M.D. *Ten Days to Self-Esteem*.
9. Michael W. Eysenck. *Psychology : An International Perspective*.
10. David L. Dotlich, James L. Noel, Norman Walker. *Leadership Passages*.
11. Peter Maguire. *Communication Skills for Doctors*.
12. Bonnie F. Fremgen. *Medical Law & Ethics*.
13. Robert M. Veatch. *Medical Ethics*. 2nd Edition.
14. Margaret Llyod, Robert Bor. *Communication Skills for Medicine*.
15. Suzanne Kurtz, Jonathan Silverman, Juliet Draper. *Teaching and Learning Communication Skills in Medicine*.

## **FF4812, FF4822 & FF5816 SPECIAL STUDY MODULE (SSM) I, II & III**

Special Study Module (SSM) is conducted on every Thursday afternoon throughout year 4 and the first 7 weeks of year 5. In this module, students have to conduct medical research which allows them to develop their skills of communication, critical thinking, information and data handling. Students are divided into groups of 5-6 students each and assigned to supervisors from various departments. The groups of students are given the opportunity to choose the type of medical research they wish to do. Special Study Module is a pre-requisite for the Final Professional Examination.

## **FF4911 & FF4921 FORENSIC PATHOLOGY I & II**

The forensic pathology module is a 2- years educational programme (Year 4 and Year 5), which prepares the students to deliver basic forensic pathology services at the level of junior Medical Officer to the police and relevant agencies according to the Malaysian Law. The students are required to attend all lectures, observe and perform postmortem examination under lecturer's supervision.

The students are required to fulfill the requirements in this posting i.e. observation of at least 2 (two) cases during the first semester and another 2 (two) in second semester. However, all students are encouraged to complete all 10 (ten) observations.

### References

#### Essential Textbooks :

1. Shahrom AW. 2001 *Patologi Forensik*. Dewan Bahasa Dan Pustaka
2. Simpson K and Knight B. 1991. *Forensic Medicine*. 10th Edition. Kent : Edward Arnold.
3. Knight B. 2004. *Forensic Pathology*. 3rd Edition. London : Edward Arnold.
4. Knight B. 1992. *Legal Aspects of Medical Practice*. 5th Edition. Edinburgh : Churchill Livingstone.
5. Spitz and Fisher. 1993. *Medicolegal Investigation of Death*. 3rd Edition. Springfield : Charles C. Thomas.
6. Camps FE. 1976. *Gradwohl's Legal Medicine*. 3rd Edition. Bristol : John Wright & Sons.
7. Gordon & Shapiro. 1982. *Forensic Medicine*. 2nd Edition. Edinburgh : Churchill Livingstone.
8. Mant AK. 1984. *Taylor's Principles and Practice of Medical Jurisprudence*. 23rd Edition. Edinburgh : Churchill Livingstone.

Journals :

1. Forensic Science International.. Journal of Forensic Medicine and Pathology.
3. Medicine, Science and Law.
4. Malaysian Journal of Forensic Pathology and Science.

## **5. 5. YEAR 5**

### **General Objectives**

At the end of Year 5, the students should be able to :

1. function as a junior doctor under direct supervision of a specialist.
2. conduct a research project and present the findings.
3. communicate effectively as a doctor, team member and assume leadership role in relevant situations.
4. demonstrate life long learning ability as a basis for future development in one's medical career.

### **Specific Objectives**

At the end of Year 5, the students should be able to :

1. describe principles of health management including functions of managers, organizational behaviour and human resource management.
2. describe basic economic issues of healthcare, including cost management, health insurance, managed care and referral system.
3. describe concept, organization, and function of urban health authority.
4. describe occupational accidents, rehabilitation and compensation process, and workplace hazards.
5. prepare a research proposal.
6. perform a research project in a chosen field of health using appropriate methods.
7. apply critical thinking skills throughout the conduct and process of research.
8. present research findings verbally, visually and in writing.
9. relate the various medicolegal aspects to clinical practice.
10. analyze the principles and practice of organizational leadership.
11. apply the dual role of doctors as team leaders and team players.
12. demonstrate good communication skills in special clinical situations such as bereavement, HIV counseling, etc.
13. apply critical thinking and learning skills in the pursuit of life-long learning and continuous professional development
14. apply medical information technology such as Hospital Information System, Electronic Medical Record, Telemedicine, etc
15. apply skills at interviews, preparing resume, and management of self, finances and health.
16. manage common problems that present to primary care practices in an evidence-based and cost-effective manner that utilizes.
17. manage mental health conditions.
18. clerk, perform physical examination, outline management plan on newly admitted patients.

19. assist the ward team in day to day management of patients.
20. assist in basic ward procedures.
21. competent in performing basic clinical procedures and interpretations of basic clinical laboratory results.
22. demonstrate good patient-doctor relationship through fine communication skills, ethical practice, appropriate bedside manners and a high degree of professionalism.
23. recognize the role of epidemiology in health promotion, disease prevention and control.
24. assist in the management of clinical emergencies.
25. assist in taking consent for a procedure and surgery.
26. assist in clinical procedures.
27. carry out patient and family counseling sessions.
28. break bad news.
29. perform on-call duties.
30. perform basic labour room procedures including normal delivery and episiotomy suturing.

## FF5115 FAMILY MEDICINE

On completion of this 5-week module, the student should be able to:

1. Perform competently a patient-centered consultation in the following types of patient encounters:
  - i) Illness-oriented
  - ii) Health-maintenance
  - iii) Undifferentiated problem-based
2. Understand the concept of continuity of care in patient management.
3. Diagnose common problems that present to a primary care practice.
4. Manage common health problems in primary care.
5. Perform common procedures typically conducted in primary care settings.
6. Interpret investigations commonly performed in primary care.
7. Assess the psychosocial, cultural and familial influences that have impact on the patient's health and disease.
8. Demonstrate effective doctor-patient relationship.
9. Demonstrate good working relationships with healthcare team members.
10. Plan and discuss aspect of health maintenance and promotion and disease prevention.
11. Identify patients who require secondary or tertiary care.
12. Identify relevant care services in the community.
13. Develop skills to enable lifelong learning.
14. Utilize the information based technology for learning process (e-learning).
15. Understand the basic principles of palliative care in managing terminally ill patients.

### References:

1. Rakel R. Editor. 2001. *Textbook of Family Practice*. 6th Edition. W B Saunders
2. J. Murtagh. 2007. *General Practice*. 3rd Edition. Mc Graw Hill Book Co.
3. Taylor R. Editor. 1998. *Fundamentals of Family Medicine : The Family Medicine Clerkship Textbook*. 2nd Edition. Springer Pub. Co.
4. Mc Whinney IR. 1997. *A Textbook of Family Medicine*. 2nd Edition. Oxford University Press.
5. Jones R, Britten N, Culpepper L, Gass D, Grol R, Mant D et al. 2004. *Oxford Textbook of Primary Care Medicine*. Oxford University Press.
6. Sloane P, Slatt L, Ebell M, Jacques L, editors. 2001. *Essentials of Family Medicine*. 4th Edition. Lippincott Williams & Wilkins.
7. Steele DJ, Susan JL, McCurdy FA, editors. 2003. *Student Guide to Primary Care, Making the Most of Your Early Clinical Experiences*. Hanley and Belfus.
8. Montauk SL, Ricer R, Filak, editors. 2001. *A Guide to The Family Medicine Clerkship*. Lippincott Williams & Wilkins.

9. Saultz J, editor. 1999. *Textbook of Family Medicine*. McGraw-Hill.

#### Online Textbooks

1. Merck Manual on-line <http://www.merck.com/mrkshared/mmanual/home.jsp>
2. Clearinghouse for Web-based textbooks for medical students <http://medicalstudent.com/>
3. eMedicine's medical textbooks <http://www.emedicine.com/med/contents.htm>
4. Virtual Naval Hospital <http://nvh.org/GMO/01Contents.html>
5. General Practice Notebook - a UK medical encyclopedia on the WWW <http://medicalstudent.com/>
6. University of Iowa Family Practice Handbook <http://vh.org/adult/provider/familymedicine/FPHandbookTOC/index.html>.
7. Academy of Medicine, Malaysia (for online access to Malaysian Clinical Practice Guidelines) <http://acadmed.org.my>

#### Journals

1. British Journal of General Practice <http://www.rcgp.org.uk/publicat/journal/index.htm>.
2. British Medical Journal (Pearls for Family Medicine) <http://www.bmj.com>
3. J Australian Family Physician <http://afp.racgp.org.au/afp/indexs.html>
4. American Family Physician <http://www.aafp.org/afp>
5. Malaysian Family Physician [www.ejournal.afpm.org.my/](http://www.ejournal.afpm.org.my/)
6. Family Practice [www.fampra.oxfordjournals.org](http://www.fampra.oxfordjournals.org).

### **FF5213 EMERGENCY MEDICINE**

This module exposes the students to the clinical approach of various common emergency cases that includes resuscitation and traumatology. The students will encounter a wide variety of patients with emergent, urgent & non-emergency problems. Our goal is to ensure that the students complete the rotation with a general understanding of the principles of pre-hospital care, initial evaluation & stabilization of critically ill patients; when to consult for further management; and appropriate disposition of emergency patients. While it is impossible within this short module to learn in depth about emergency medicine, we hope that it can create a different perspective towards modern emergency care through experiential learning techniques.

#### References

1. Shirley Ooi, Peter Manning. 2004. *Guide to the essentials in Emergency Medicine Singapore*. McGraw-Hill.

4. Jonathan Wyatt, Robin Illingworth, Colin Graham, Kerstin Hogg. 2012. *Oxford Handbook of Emergency Medicine*. 4th Edition. OUP Oxford.
5. Judith E. Tintinalli, Gabor D. Kelen, J. Stephan Stapczynski. 2011. *Emergency Medicine : a comprehensive study guide/American College of Emergency Physicians*. 8th Edition. New York : McGraw Hill.
6. John Marx, Robert Hockberger, Ron Walls. 2014. *Rosen's Emergency Medicine*. 8th Edition. Mosby.

#### Journal

1. Annals of Emergency Medicine (<http://www.sciencedirect.com/science/journal/>)
2. Circulation ([http://circ.ahajournals.org/content/vol112/24\\_suppl/](http://circ.ahajournals.org/content/vol112/24_suppl/))
3. Emergency Medicine Practice through PPUKM library portal (<https://www.ebmedicine.net>)

#### Websites

1. Uptodateonline (through PPUKM library portal)
2. Lifeinthefastlane.com (medical education blog)

## **FF5316 INTERNAL MEDICINE II**

During this posting, the concept of senior clerkship is introduced in the second part of the medical attachment in order to train and prepare the final year students prior to their internship, so that they are familiar and competent in handling acute and chronic medical cases.

#### References

1. Haslett Christopher. 2010. *Davidson's Principles and Practice of Medicine*. 21st Edition. Churchill Livingstone.
2. Talley, Nicholas J and O'Connor, Simon. 2005. *Clinical Examination: A Systemic Guide to Physical Diagnosis*. 5th Edition.
3. Kumar, Parveen / Clark, Michael. 2012. *Kumar & Clark Clinical Medicine*. 8th Edition.
4. Malaysia's Clinical Practice Guidelines
5. Kasper, Dennis L. 2008. *Harrison's Principles of Internal Medicine*. 17th Edition. New York: The McGraw-Hill Companies Inc.
6. David A. Warrell, Timothy M. Cox. 2003. *Oxford Textbook of Medicine*. 4th Edition.
7. medscape: [www.medscape.com](http://www.medscape.com)
8. e-medicine: [www.emedicine.com](http://www.emedicine.com)

## FF5126 SURGERY II

During the 7 week posting, the students will initially be given a week of refresher course which will include seminars and lectures on specific topics plus demonstrations on basic surgical procedures. Following this, they will be divided into 2 groups; each group will be required to spend a 3 week rotation each in UKMMC and Teluk Intan Hospital. The group at UKMMC will be further divided based on the 5 units in General surgery consisting of:

1. Breast and Endocrine Surgery
2. Colorectal Surgery
3. Hepatobiliary Surgery
4. Vascular Surgery
5. Minimally Invasive Surgery.

*These subgroups will consist of 5-15 students who will be taught by 5-10 lecturers.*

Each lecturer is required to teach at least weekly for a minimum of an hour. However, the leaders of these subgroups are responsible to contact the lecturers themselves, early in the posting, to arrange for these teaching sessions which are usually conducted in the wards. Other additional teaching sessions usually take place in the operation theatres, clinics and endoscopy suites. Students are exposed to the concept of senior clerkship during their surgical attachment. The senior clerkship serves to prepare the students to become familiar and competent in handling common surgical cases and perform simple day-to-day procedures as surgical house officers. The current module will give more emphasis in basic surgical emergencies and procedures. Apart from these, the general surgical posting also imparts the personal and professional development module in the training. In line with the senior clerkship concept, the students are required to go on-call and perform as "Junior House Officers".

All tasks (performed/observed) by the students must be immediately documented in their respective log books for verification/grading purposes by the supervising doctors/staff. At the end of each 3 week posting, the students need to get their supervisors' report. Each student should at the end of the surgical posting have a total of 2 supervisor's report; one from Teluk Intan Hospital and one from UKMMC.

The Friday of the 5th week of posting is the dateline to submit a case report to the office for stamping of date of reception; those submitted thereafter will be rejected & the student will be given zero for his/her case write-up. The end of posting test will be held in the surgical wards in UKMMC on the last day. Having completed the surgical posting, the students are expected to have acquired the necessary surgical knowledge and skills to enable them to be proficient house officers.

## References

### Textbook

1. Forrest, Carter. 2005. *Macleod: Principles and Practice of Surgery*. Churchill Livingstone.
2. Cushieri, Hennessy, Greenhalgh, Rowley and Grace. 2003. *Clinical Surgery*. Blackwell Science.
3. Williamson. 2005. *Scott: An Aid to Clinical Surgery*. Churchill Livingstone.
4. Normal L Browse. 2005. *An Introduction to The Symptoms and Signs of Surgical Diseases*.

### Reference Book:

1. Cushieri, Giles, Moossa. 1996. *Essential Surgical Practice*.
2. *Bailey and Love's short practice of Surgery*. 23rd Edition. 2004.

### Web Reference:

1. Surgical tutor- [surgical-tutor.org.uk](http://surgical-tutor.org.uk)
2. International journal of surgery - <http://www.theijs.com>

## FF5227 PAEDIATRICS II

This is the second paediatric posting in the medical undergraduate program. During this module, the concept of senior clerkship is introduced in order to train and prepare the students prior to the internship, so that students are familiar and competent in handling acute and chronic paediatric cases. Four weeks are in PPUKM and two weeks of this posting will be spent at a peripheral district hospital. Students are expected to perform ward work and attend ward rounds and clinics at these hospitals. The seventh week will consist of a community visit and presentation, and self-directed learning in the skills laboratory.

## References

1. Lissauer & Clayden 2007. *Illustrated Textbook of Paediatrics*. 3rd Edition. Publisher: Mosby
2. Kliegman 2011. *Nelson Essential Pediatrics*. 6th Edition. Publisher : Saunders
3. *Clinical Practice Guidelines-Asthma (2004), Dengue (2004), Gastroenteritis (2001), Nephrotic Syndrome (1999)*
4. *Malaysian Schedule of Immunisation (2006)*. Source: Ministry of Health
5. Robertson 2001 & Rinnie. *A Manual of Neonatal Intensive Care*. 4th Edition. Publisher: Hodder & Arnold
6. Kliegman 2010. *Nelson's Textbook of Pediatrics*. 19th Edition. Publisher: Saunders
7. Website of MOH: <http://www.acadmed.org.my/html.cpg.htm>

## FF5326 OBSTETRICS & GYNAECOLOGY II

The final year are reserved for more direct clinical exposure to prepare the students for the first year of working in medical service in Obstetric & Gynaecology. Students are posted to the O&G Department for duration of seven weeks in the final year. Students are assigned according to the department rotation and supervised by department lecturers. This training will be either in PPUKM or the satellite hospitals such as Hospital Teluk Intan and Hospital Slim River.

### References

1. S. Arulkumaran et. al. 2011. *Essentials of Obstetrics*. 2nd Edition.
2. S. Arulkumaran et. al. 2011. *Essentials of Gynaecology*. 2nd Edition.
3. A.W.F. Miller, K.P. Hanretta. 1998. *Obstetrics Illustrated*. 5th Edition..
4. D.M. Hart, J. Norman. 2000. *Gynaecology Illustrated*. 5th Edition.
5. Cunningham, Leveno, Bloom et. al. 2005. *Williams Obstetrics*. 22nd Edition.
6. Sir N. Jeffcoate. 2001. *Jeffcoate's Principles of Gynaecology*. 5th Edition.
7. Malaysian Ministry of Health Clinical Practice Guidelines: [www.moh.gov.my](http://www.moh.gov.my)
8. Royal College of Obstetrics & Gynaecology Green Top Clinical Practice Guidelines: [www.rcog.org.uk](http://www.rcog.org.uk)
9. Handbook of Labour Room Practice: A comprehensive guide to the management of women in labour, edited by Dr. Y.H. Lim, Prof. Dr. Muhd. Jamil Yassin, Prof. Dr. Zaleha Abdullah Mahdy.

## FF5911 FORENSIC PATHOLOGY III

The forensic pathology module in year 5 requires the students to continue observe and perform postmortem examination under lecturer's supervision, prepares postmortem report, and attends a moot court video presentation. All students are encouraged to complete a cumulative total of ten (10) observations before they are allowed to perform two (2) postmortem examinations in this year. All students are required to submit two (2) postmortem reports in either English or Malay language each. An end-posting examination will be held at the end of the posting.

### References

Essential Textbooks :

1. Knight B. 2004. *Forensic Pathology*. 3rd Ed. London : Edward Arnold.
2. Simpson K. and Knight B. 1991. *Forensic Medicine*. 10th Ed. Kent : Edward Arnold.
3. Camps FE. 1976. *Gradwohl's Legal Medicine*. 3rd Ed. Bristol : John Wright & Sons.

4. Spitz and Fisher. 1993. *Medicolegal Investigation of Death*. 3rd Ed. Springfield : Charles C Thomas.
5. Gordon and Shapiro. 1982. *Forensic Medicine*. 2nd Ed. Edinburgh : Churchill Livingstone.
6. Knight B. 1992. *Legal Aspects of Medical Practice*. 5th Edition. Edinburgh : Churchill Livingstone
7. Mant AK. 1984. *Taylor's Principles and Practice of Medical Jurisprudence*. 23rd Ed. Edinburgh : Churchill Livingstone.
8. Shahrom AW. 2001. *Patologi Forensik*. Kuala Lumpur : Dewan Bahasa dan Pustaka.

Journals :

1. Forensic Science International
2. Journal of Forensic Medicine and Pathology
3. Medicine, Science and Law
4. Malaysian Journal of Forensic Pathology and Science

## **FF5713      PERSONAL & PROFESSIONAL DEVELOPMENT V (MEDICAL CAREER)**

This PPD module is to further facilitate the development of professionalism in clinical work of medical students as part of the preparation to become future clinicians. There is more emphasis given to emphatic skills in doctor-patient relationship, communication skills, teamwork, leadership, and medical ethics. This module will also familiarize the students with the uncertain nature of clinical medicine, such as the challenge in breaking bad news as well as the unpredictable and varied behaviour of patients.

References:

1. Paul Ramsden. 2004. *Learning to Teach in Higher Education*. 2nd Edition. New York : Routledge Falmer.
2. Toney Ghaye, Sue Lilyman. 2000. *Reflection : Principles and Practice for Healthcare Professional*. Dinton : Mark Allen.
3. Frederick W. Plarr, Geoffrey H. Hordon. 2004. *Field Guide to the Difficult Patient Interview*. 2nd Edition. Philadelphia: Lippincott Williams & Wilkins.
4. Asma Abdullah, Paul B. Pedersen. 2003. *Understanding Multicultural Malaysia Delights, Puzzles & Irritations*. Petaling Jaya : Prentice Hall.
5. Paul Freeling, Conrad M. Harris Foreword by William A.R. Thomson. 1984. *The Doctor-Patient Relation*. Edinburgh: Churchill Livingstone.
6. Eileen Scholes. 2003. *Handbook of Communication*. Infinity Books.
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9. Michael W. Eysenck. 2004. *Psychology: An International Perspective*. New York: Psychology Press.
10. David L. Dotlich, James L. Noel, Norman Walker. 2004. *Leadership Passages*. San Francisco: John Wiley & Sons.
11. Peter Maguire. 2000. *Communication Skills for Doctors*. London: Arnold.
12. Bonnie F. Fremgen. 2002. *Medical Law & Ethics*. Upper Saddle River, N.J.: Prentice Hall.
13. Robert M. Veatch. 1997. *Medical Ethics*. 2nd Edition. Boston: Jones and Bartlett
14. Margaret Llyod & Robert Foreword by Professor Sir David Weatherall. 1996. *Communication Skills for Medicine*. New York: Churchill Livingstone.
15. Suzanne Kurtz, Jonathan Silverman and Juliet Draper. 1998. *Teaching and Learning Communication Skills in Medicine*. Oxford: Radcliffe Medical Press.

### **FF5816 SPECIAL STUDY MODULE (SSM)**

Special Study Module (SSM) is conducted on every Thursday afternoon throughout year 4 and the first 7 weeks of Year 5. In this module students have to conduct medical research which allows them to develop their skills of communications, critical thinking, information and data handling. Students are divided into groups of 5-6 students each and assigned to supervisors from various departments. The groups of students are given the opportunity to choose the type of medical research they wish to do. Special Study Module is a pre-requisite for the Final Professional Examination.

## **STUDENT ASSESSMENT**

### **A. GENERAL CRITERIA**

#### **1. Assessment Terminology**

##### **Year 1, 2, 3 and 4**

- Continuous Assessment (CA)
- End Semester I and II Examinations (ESE)
- Remedial / Refer Examination after End Semester II Examination

##### **Year 5**

- Continuous Assessment (CA)
- Professional Examination (PE)

#### **2. Eligibility to sit for ESE**

- Minimum attendance of 80% in teaching-learning activities
- Fulfill the criteria specified by each module

#### **3. Eligibility to sit for PE**

- Minimum attendance of 80% in teaching-learning activities
- Pass Special Study Module and Forensic Pathology

#### **4. Criteria for Progression**

##### **Year 1 and 2**

- Pass ESE, progress to subsequent year
- Fail any module in ESE,  
- sit for Remedial
- Fail Remedial / Refer Examination, repeat the year
- Fail Remedial/Refer Examination with CGPA 1.33 and below, exit the programme.
- Composite marks of all components are counted as the final marks

##### **Year 3 and 4**

- Pass ESE, progress to subsequent year
- Fail two or less major modules in ESE, refer posting and sit for Remedial / Refer Examination
- Fail more than two major modules in ESE, repeat the year
- Fail Remedial / Refer Examination, repeat the year

- In major clinical modules\*, students must pass all the three assessment components (CA, theory exam, OSCE) in order to pass the module
- In minor clinical modules\*\*, composite marks of all three components are counted as the final marks
- In Medicine and Society Module and PPD Module, students must pass both components CA and ESE to pass the module

### Year 5

- Pass the Professional Examination, a student will be awarded with the MD (UKM) degree.
- Pass with distinction in the Professional Examination, a student will be awarded the MD (UKM) degree and the distinction will be recorded in the transcript.
- Pass with distinction in the Professional Examination and fulfill all the criteria for honours, a student will be awarded the MD(Hons) (UKM) degree.
- Fail Professional Examination, repeat year 5 for 6 months

## 5. Grades : CGPA System

### B. EXAMINATION FORMAT & DISTRIBUTION OF MARKS

#### Years 1 and 2

##### Biomedical Modules

Examinations	Distribution of Marks		Total
CA	End of Module Examination - 20%	PBL - 10%	30%
ESE - Theory	MCQ (OBA & EMI) - 50%	MEQ - 50%	100% → 50% - 70%
ESE - OSPE	≤ 5 stations - 10%	≥ 8 stations - 20%	10% - 20%

##### Clinical Science Modules

Examinations	Distribution of Marks		Total
Year 1 Semester II	CA – 60%	ESE – OSCE 40%	100%
Year 2 Semester I	CA – 30%	ESE – OSCE 70%	100%
Year 2 Semester II	CA – 30%	ESE – OSCE 70%	100%

**Personal & Professional Modules**

Examinations	Distribution of Marks		Total
Year 1 Semester I	CA – 50%	ESE - OSCE + Theory 50%	100%
Year 1 Semester II	CA – 50%	ESE - OSCE + Theory 50%	100%
Year 2 Semester I	CA – 60%	ESE – OSCE 40%	100%
Year 2 Semester II	CA – 60%	ESE – OSCE 40%	100%

**Medicine & Society Modules**

Year 1 & 2	CA – 30%	ESE – 70%	100%
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**Comprehensive Health Care**

Year 2 Semester 2	CA – 100%	-	100%
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**Years 3 and 4****Clinical Modules\* (Medicine I, O&G I, Surgery I, Orthopaedics, Paediatrics I, Psychiatry)**

Examinations	Distribution of Marks	Total
CA	30%	30%
ESE - Theory	MCQ (OBA & EMI) and MEQ – 35%	35%
ESE - OSCE	35%	35%
		100%

**Clinical Modules\*\* (ORL-HNS, Ophthalmology, Anaesthesiology)**

Examination	Distribution of Marks	Total
CA	30%	30%
ESE - Theory	35%	35%
ESE - OSCE	35%	35%
		100%

**Personal & Professional Module\*\*\***

Examination	Distribution of Marks	Total
CA	50%	50%
ESE – Theory & OSCE	50%	50%
		100%

**Medicine & Society Module**

Examination	Distribution of Marks	Total
CA	50%	50%
ESE – Theory & OSCE	50%	50%
		100%

**Year 5****Clinical Modules (Medicine II, O&G II, Surgery II, Pediatrics II, Family Medicine, Emergency Medicine)**

Examination	Distribution of Marks	Total
CA	30%	30%
PE – Theory	MCQ I & II (OBA & EMI) - 20% & KFQ - 15%	35%
PE – Clinical	Long Case - 30% & OSCE - 70%	35%

**Forensic Pathology & Special Study Modules (Prerequisite to sit for the PE)**

Examination	Grading
Assessment throughout the modules in Year 4 & 5	Pass or Fail

**Note:**

\* Major clinical modules \*\* Minor clinical modules

Refer Study Guides for more detailed information

PE = Professional Examination

**PERATURAN - PERATURAN  
FAKULTI PERUBATAN  
UNIVERSITI KEBANGSAAN MALAYSIA**

**PERATURAN-PERATURAN  
FAKULTI PERUBATAN**

**DI BAWAH PERUNTUKAN PERATURAN-PERATURAN  
UNIVERSITI KEBANGSAAN MALAYSIA  
(PENGAJIAN SARJANAMUDA) 1990**

1. Syarat-syarat Penerimaan Masuk

1.1. Keperluan Pelajaran Asas

1.1.1. Sijil Pelajaran Malaysia

Calon-calon mestilah lulus peperiksaan Sijil Pelajaran Malaysia (SPM) atau peperiksaan yang setaraf dengannya serta lulus dengan kepujian dalam mata pelajaran Bahasa Melayu/Bahasa Malaysia atau Bahasa Melayu/Bahasa Malaysia Kertas Julai dan;

1.1.2. Sijil Tinggi Persekolahan Malaysia atau yang setaraf

1.1.2.1. Calon-calon mestilah lulus peperiksaan STPM dengan mendapat sekurang-kurangnya PNGK 2.00 dan mendapat sekurang-kurangnya :

- i. Gred C (NGMP 2.00) dalam matapelajaran Pengajian Am ; dan
- ii. Gred C (NGMP 2.00) dalam dua matapelajaran lain dan mendapat sekurang-kurangnya Tahap 1 (Band 1) dalam Peperiksaan Malaysian University English Test (MUET)

1.1.2.2. Calon-calon yang memohon masuk ke Fakulti Perubatan mestilah lulus sekurang-kurangnya Gred B (NGMP 3.00) matapelajaran berikut :

- Matematik T/Matematik Lanjutan T
- Kimia
- Biologi

1.1.2.3. Calon-calon mestilah juga telah lulus Malaysian University English Test (MUET) dengan mendapat sekurang-kurangnya Tahap 3 (Band 3).

ATAU :

### **1.1.3. Sijil Matrikulasi**

**1.1.3.1. Bagi kemasukan ke mana-mana program IPTA di Malaysia, umumnya calon-calon mestilah lulus kursus Matrikulasi Kementerian Pelajaran Malaysia/Asasi Sains UM/Asasi Sains UiTM dengan mendapat sekurang-kurangnya PNGK 3.50 dan mendapat sekurang-kurangnya Tahap 3 (Band 3) dalam Malaysian University English Test (MUET).**

**1.1.3.2. Calon-calon yang memohon masuk ke Fakulti Perubatan mestilah lulus semua matapelajaran peng-khususan dan mendapat sekurang-kurangnya Gred B (NGMP 3.50) dalam matapelajaran berikut;**

- **Biologi**
- **Kimia**
- **Matematik**

(Senat ke-395 - 18 Dis 2013)

## **1.2. Syarat-syarat Masuk Yang Lain**

Calon-calon mestilah juga :

- 1.2.1. dapat memuaskan Senat tentang kecekapan mereka bertutur dalam Bahasa Malaysia ;
- 1.2.2. mengambil apa-apa ujian serta menghadiri temuduga seperti yang ditentukan oleh Senat untuk menilai kelayakan mereka mengikuti kursus di Universiti ;
- 1.2.3. menunjukkan lazimnya bahawa mereka berumur tujuh belas tahun atau lebih pada hari pertama tahun akademik yang mereka mohon masuk ;
- 1.2.4. menunjukkan bukti dalam borang yang disediakan oleh Universiti bahawa mereka adalah cukup sihat dan berupaya untuk mengikuti kursus pengajian di universiti ; dan

- 1.2.5. memenuhi apa-apa syarat lain yang ditetapkan oleh Senat dari semasa ke semasa.
- 1.3. Penerimaan masuk calon ke Fakulti bergantung kepada budi bicara Senat.

## 2. Struktur Pengajian

### 2.1. Kursus

#### 2.1.1. Fakulti

Calon-calun dikehendaki mengikuti semua kursus yang ditetapkan oleh Fakulti. Semua kursus Fakulti adalah kursus wajib. Calon-calun di peringkat klinikal dikehendaki mengikuti kesemua program kepaniteraan atau posting yang ditentukan.

#### 2.1.2. CITRA UKM

Calon-calun dikehendaki mengikuti kursus-kursus CITRA UKM dengan jumlah 30 jam kredit seperti yang ditetapkan berikut :

2.1.2.1 LAPAN (8) jam kredit untuk kursus CITRA WAJIB

2.1.2.2 LAPAN (8) jam kredit untuk kursus CITRA KOMPETENSI.

2.1.2.3 EMPAT BELAS (14) jam kredit untuk kursus CITRA RENTAS.

**Manakala** bagi kursus Bahasa Inggeris, pelajar perlu mengambil sebanyak 4 jam kredit semasa di Tahun 1 pengajian.

*\* Bagi pelajar-pelajar perubatan, Kursus CITRA UKM tidak dikira di dalam pengiraan PNGK.*

### 2.2. Tempoh Pengajian

- 2.2.1. Calon-calun mesti mengikuti kursus ijazah Doktor Perubatan tidak melebihi tujuh (7) sesi di mana pengajian Tahun 1 dan 2 ditetapkan tidak melebihi 3 sesi dan Peperiksaan Ikhtisas Akhir boleh diambil tidak melebihi 3 kali tertakluk kepada tempoh pengajian tujuh (7)

sesi. Walau bagaimanapun, pelajar boleh merayu untuk dibenarkan menduduki Peperiksaan Ikhtisas (Ulangan) satu (1) kali lagi tertakluk kepada persetujuan Fakulti dan Senat.  
(Senat Ke-307 - 16 Julai 2003)

- 2.2.2. Calon-calon program berkembar Ijazah Doktor Perubatan mesti mengikuti kursus tidak melebihi sembilan (9) sesi di mana pengajian Tahun 1, 2 dan 3 adalah ditetapkan tidak melebihi 4 sesi dan sesi pengajian Tahun 3, 4 dan 5 tidak melebihi 5 tahun. Peperiksaan Ikhtisas Akhir boleh diambil tidak melebihi 3 kali tertakluk kepada tempoh pengajian sembilan (9) sesi. Walau bagaimanapun, pelajar boleh merayu untuk dibenarkan menduduki Peperiksaan Ikhtisas (Ulangan) satu (1) kali lagi tertakluk kepada persetujuan Fakulti dan Senat.
- 2.2.3 Calon-calon yang dikecualikan daripada sebilangan unit kursus semasa penerimaan masuk, tempoh minimum yang dikenakan untuk menyelesaikan kursus pengajian bagi ijazah bergantung kepada bilangan kursus/tahun yang dikecualikan. Bagi calon-calon yang memenuhi syarat pengecualian ini, tempoh minimum untuk mengikuti kursus perubatan adalah selama 3 tahun di peringkat klinikal tertakluk kepada perakuan Fakulti.

### **2.3 Pendaftaran Kursus**

- 2.3.1 Calon-calon dikehendaki mendaftar kursus-kursus yang ditentukan pada setiap sesi, kecuali calon-calon di peringkat praklinikal yang dikehendaki mendaftar kursus-kursus berkenaan pada setiap semester. Pendaftaran kursus-kursus tersebut hendaklah dilakukan mengikut syarat-syarat yang ditetapkan oleh Fakulti.
- 2.3.2 Penukaran kursus yang didaftarkan boleh dilakukan hanya dalam tempoh dua (2) minggu pertama permulaan tiap-tiap semester.\*  
(KURSUS UNIVERSITI)
- 2.3.3 Pengguguran kursus yang didaftarkan boleh dilakukan dalam tempoh 4 (empat) minggu pertama permulaan tiap-tiap semester. Pengguguran selepas minggu ke 4 sehingga minggu ke 10 akan diberikan gred TD (Tarik Diri). Kursus yang digugurkan ini tidak akan diambil kira di dalam Penilaian Gred.\* (KURSUS UNIVERSITI)

### 3. Struktur Penilaian\*

- 3.1. Pemberian markah dan gred bagi setiap semester atau sesi adalah untuk setiap kursus dan penilaian-penilaian lain yang diadakan di sepanjang semester, peperiksaan akhir semester dan peperiksaan ikhtisas.
- 3.2. Pemberian markah dan gred untuk sesuatu kursus Fakulti tanpa peperiksaan akhir semester adalah dengan cara penilaian berasaskan kepada kerja kursus dan/atau penilaian lain yang diadakan sepanjang semester.\* (SSM/CLERKSHIP-TAHUN 5)
- 3.3. Markah dan gred (serta nilai gred) yang diberikan kepada sesuatu kursus adalah seperti berikut: (KURSUS TAHUN 1-5)

Markah (%)	Gred	Nilai Gred	Taraf
80 ke atas	A	4.00	Cemerlang
75 - 79	A-	3.67	
70 - 74	B+	3.33	
65 - 69	B	3.00	Kepujian
60 - 64	B-	2.67	
55 - 59	C+	2.33	Lulus
50 - 54	C	2.00	
47 - 49	C-	1.67	
44 - 46	D+	1.33	Gagal
41 - 43	D	1.00	
40 ke bawah	E	0.00	

- 3.4 Gred-gred berikut diberikan tanpa markah atau gred/nilai gred :
  - 3.4.1. L/K (Lulus/Kandas) iaitu gred yang diberikan kepada pelajar-pelajar yang mengambil kursus yang keputusannya tidak digredkan tetapi hanya diberikan catatan “lulus” atau “kandas” sahaja.
  - 3.4.2. TL (Tidak Lengkap) iaitu gred yang diberikan dengan kebenaran Fakulti kepada pelajar yang tidak dapat menyelesaikan sekurang-kurangnya 70% daripada keperluan kursus atas alasan yang munasabah. Pelajar perlu melengkapkan tugas tersebut selewat-lewatnya dua (2) minggu selepas pendaftaran semester berikutnya untuk mendapat penilaian penuh dan gred.

- 3.4.3. SM (Sedang Maju) iaitu gred yang digunakan bagi sesuatu kerja atau projek yang melebihi satu semester untuk disiapkan. Ia tidak diberi mata nilai tetapi unit baginya hanya dikira untuk penentuan unit umum bagi sesuatu semester dan bukan untuk keperluan penilaian untuk mendapatkan ijazah. Unit dan nilai gred bagi kerja atau projek tersebut hanya diambil kira bagi maksud pengiraan jumlah unit untuk keperluan ijazah dan purata nilai apabila simbol SM digantikan dengan gred.
- 3.4.4. U (audit) iaitu gred yang diberikan kepada pelajar yang mendaftar, menghadiri kursus dan mengambil peperiksaan bagi sesuatu kursus itu tetapi nilai gred tidak diberikan dan lulus peperiksaan kursus itu.
- 3.4.5. TD (Tarik Diri) iaitu gred yang diberikan kepada pelajar yang menarik diri bagi sesuatu kursus dengan kebenaran pensyarah dan Dekan Fakulti selepas minggu ke 4 hingga ke 10 sesuatu semester.
- 3.4.6. TP (Tangguh Peperiksaan) iaitu gred yang diberikan kepada pelajar yang memohon untuk menangguhkan peperiksaan di bawah perenggan 7.3. Peperiksaan gantian diadakan semasa Peperiksaan Ulangan Semester.

#### **4. Sistem Penilaian**

- 4.1. Semua kursus akan diambil kira untuk mengira Purata Markah dan Gred Semester/Sesi kecuali kursus Universiti seperti pada perenggan 2.1.2.
- 4.2. Kursus-kursus yang mendapat gred gagal juga diambil kira untuk menentukan Purata Gred/Markah bagi Semester/Sesi berkenaan.
- 4.3. Gred bagi Peperiksaan Ulangan Semester akan diberi taraf lulus sahaja (setaraf gred C) dan diambil kira untuk menentukan Purata Gred/Markah bagi pelajar-pelajar mengulang tertakluk kepada perenggan 8.1.

#### **5. Syarat-Syarat Kelayakan Meneruskan Pengajian**

- 5.1. Taraf Lulus : Seseorang calon dianggap lulus dan dibenar meneruskan pengajian jika lulus semua kursus yang ditetapkan oleh Fakulti. Markah lulus sesuatu kursus adalah 50% dan ke atas atau nilai yang ditentukan melalui kaedah 'Standard Setting' yang dipersetujui dalam Mesyuarat Jawatankuasa PraPemeriksa Kursus/Modul.

- 5.2. Taraf Gagal : Seseorang calon dianggap gagal sesuatu kursus jika tidak memenuhi syarat 5.1., atau dilarang menduduki peperiksaan kerana tidak memenuhi syarat untuk menduduki peperiksaan sesuatu kursus seperti pada syarat 8.1., atau tidak menghadiri peperiksaan sesuatu kursus tanpa sebarang sebab yang munasabah.

5.2.1. Taraf Gagal Tahun 1 dan 2

- 5.2.1.1. Pelajar yang gagal mana-mana modul Peperiksaan Akhir Semester 1 dan/atau Peperiksaan Akhir Semester 2 layak menduduki Peperiksaan Ulangan.  
(Senat ke-385 - 20 Feb 2013)

- 5.2.2.2. Seseorang calon dianggap gagal dan diberhentikan jika :

**5.2.2.2.1. gagal Peperiksaan Ulangan Semester semasa dalam tahun ulangan, atau**

**5.2.2.2.2. telah menghabiskan tempoh maksimum tiga (3) sesi pengajian pada Tahun 1 & 2 seperti pada syarat 2.2, atau**

**5.2.2.2.3. gagal Peperiksaan Ulangan Semester dengan Purata Nilai Gred Keseluruhan (PNGK) kurang atau sama 1.33.**  
(Senat ke-385 - 20 Feb 2013)

5.2.2. Taraf gagal Tahun 3 dan 4

- 5.2.2.1. Seseorang calon yang gagal satu (1) kursus (Major/ Minor) atau dua (2) kursus (Major dan Minor) atau dua (2) kursus Minor atau dua (2) kursus Major dikehendaki menduduki kursus ulangan dan Peperiksaan Ulangan Semester bagi kursus yang gagal dalam tempoh yang ditentukan. Calon dibenarkan untuk menduduki Peperiksaan Ulangan Semester sekali sahaja.

- 5.2.2.2. Seseorang calon yang gagal dua (2) kursus Major dan lebih [dua (2) kursus Major dan satu (1) kursus Minor atau tiga (3) kursus Major atau empat (4) kursus Major] dianggap gagal dikehendaki mengulang tahun pada sesi berikutnya. Kebenaran untuk mengulang tahun hanya diberi kepada seseorang calon yang berjaya

melengkapkan semua kursus pada tahun calon gagal.

5.2.2.3. Calon yang berjaya melengkapkan semua kursus dan lulus 'Continuous Assessment' (CA) akan dikecualikan daripada menyediakan case write-up di tahun mengulang.

5.2.2.4. Seseorang calon dianggap gagal dan diberhentikan jika:

**5.2.2.4.1. gagal Peperiksaan Ulangan Semester semasa dalam tahun ulangan, atau**

**5.2.2.4.2. telah menghabiskan tempoh maksimum tujuh (7) sesi pengajian (syarat 2.2).**

5.2.3. Taraf gagal di Tahun 5

5.2.3.1. Seseorang calon dianggap gagal dan diberhentikan jika telah menghabiskan tempoh maksimum lima (5) sesi pengajian di Tahun 3, 4, dan 5 atau menghabiskan tempoh maksimum tujuh (7) sesi pengajian (syarat 2.2.).

5.3. Taraf Mengulang Tahun

5.3.1. Taraf Mengulang Tahun 1 dan 2

Seseorang calon yang memenuhi syarat 2.2 dan mempunyai PNGK lebih daripada 1.33 dibenarkan mengulang tahun jika:

5.3.1.1. gagal Peperiksaan Ulangan Semester.

Peluang seseorang pelajar untuk mengulang tahun adalah juga tertakluk kepada keputusan fakulti (Senat ke-385 - 20 Feb 2013)

5.4. Taraf Mengulang Tahun 3 dan 4

Seseorang calon yang memenuhi syarat 2.2. dibenarkan mengulang tahun jika :

5.4.1. gagal Peperiksaan Ulangan Semester, atau

5.4.2. gagal 3 atau lebih kursus semasa Peperiksaan Akhir Semester.

5.5. Taraf Mengulang Tahun 5

5.5.1. Seseorang calon yang memenuhi syarat 2.2. dibenarkan mengulang 6 bulan jika :

**5.5.1.1. tidak dibenarkan menduduki Peperiksaan Ikhtisas kerana tidak memenuhi perkara 6.1. atau**

**5.5.1.2. gagal Peperiksaan Ikhtisas**

**5.5.1.3 tergolong dalam peraturan 8.1.2.**

5.5.2. Seseorang calon yang memenuhi syarat 2.2. dibenarkan mengulang 1 tahun akademik jika :

**5.5.2.1. telah mengikuti sekurang-kurangnya 80% daripada keperluan setiap kursus Tahun 5 yang ditetapkan oleh Fakulti seperti pada peraturan 8.1.1.**

5.6. Taraf Diberhentikan Daripada Mengikuti Program

5.6.1. Seseorang calon Tahun 1 dan 2 dianggap gagal dan diberhentikan daripada mengikuti program jika gagal Peperiksaan Ulangan Semester dengan PNGK kurang atau sama 1.33.

5.6.2. Seseorang calon Tahun 3, 4 dan 5 dianggap gagal dan diberhentikan daripada pengajian jika gagal melengkapkan semua kursus pada tahun calon gagal.

5.6.3 Seseorang calon dianggap gagal dan diberhentikan daripada mengikuti program jika gagal Peperiksaan Ulangan Semester semasa berada dalam tahun ulangan.

5.6.4. Seseorang calon diberhentikan jika disahkan oleh Lembaga Perubatan Pelajar Fakulti Perubatan (LPPFP) menghidap penyakit mental yang menjejaskan kemampuan untuk berfungsi sebagai seorang pelajar perubatan dan doktor.

## 6. Syarat Dibenarkan Menduduki Peperiksaan Ikhtisas

- 6.1. Seseorang calon layak menduduki Peperiksaan Ikhtisas jika :
  - 6.1.1. lulus kursus Kajian Khusus
  - 6.1.2. lulus kursus Patologi Forensik
  - 6.1.3. tidak melanggar peraturan 8.1.

## 7. Penilaian Mendapat Ijazah

- 7.1. Seseorang calon mesti memenuhi semua syarat berikut untuk dikurniakan Ijazah Doktor Perubatan :
  - 7.1.1. Lulus Peperiksaan Ikhtisas dengan mendapat markah 50% dan ke atas atau nilai yang ditentukan melalui kaedah 'Standard Setting' yang dipersetujui dalam Mesyuarat Jawatankuasa PraPemeriksa di dalam :
    - 7.1.1.1 keseluruhan peperiksaan;
    - 7.1.1.2 Peperiksaan Klinikal;
  - 7.1.2 Lulus semua kursus Universiti yang ditetapkan;
- 7.2. Seseorang calon layak dianggap cemerlang dalam Peperiksaan Ikhtisas (tertera pada transkrip) jika mendapat markah 75% (bersamaan Nilai Gred 3.67) dan ke atas ATAU nilai lain yang dipersetujui dalam Mesyuarat Jawatankuasa Pra-Pemeriksa;
- 7.3. Seseorang calon layak dikurniakan Ijazah Doktor Perubatan (Kepujian) jika lulus Peperiksaan Ikhtisas dengan :
  - 7.3.1. mendapat markah 75% dan ke atas atau nilai yang dipersetujui dalam Mesyuarat Jawatankuasa PraPemeriksa;
    - 7.3.1.1 Keseluruhan peperiksaan, dan
    - 7.3.1.2 Peperiksaan klinikal;
  - 7.3.2. tidak pernah gagal mana-mana kursus sepanjang mengikuti program pengajian perubatan dan;

- 7.3.3. mendapat sekurang-kurangnya gred B (65% dan ke atas) dalam semua kursus yang diambil dalam semua peperiksaan sepanjang mengikuti program perubatan.  
(Senat Ke-330 - 16 Mei 2007)
- 7.4. Tiada peruntukan untuk lulus bersyarat atau 'redeemable' di dalam Peperiksaan Ikhtisas.
- 7.5. Ijazah boleh dikurniakan kepada calon yang telah :
  - 7.5.1. memenuhi semua kehendak dan Akta Pengajian Sarjanamuda;
  - 7.5.2. memenuhi semua kehendak Peraturan ini;
  - 7.5.3. diperakui supaya diberi ijazah berkenaan oleh Jawatankuasa Pemeriksa dan disahkan oleh Senat.
  - 7.5.4. menjelaskan segala bayaran yang telah ditetapkan.

## **8. Peruntukan-Peruntukan Lain**

- 8.1. Seseorang pelajar tidak akan dibenarkan mengambil peperiksaan sesuatu kursus/ikhtisas sekiranya Dekan telah memperakui bahawa calon berkenaan :
  - 8.1.1. telah tidak mengikuti 100% daripada keperluan kursus tersebut seperti yang ditetapkan oleh Fakulti dan/atau tidak memenuhi syarat-syarat lain yang ditetapkan oleh sesuatu kursus.
  - 8.1.2. telah memplagiat atau menipu apa-apa bentuk penilaian (seminar, laporan, penulisan kes, buku log) yang ditetapkan dalam sesuatu kursus.
  - 8.1.3. tidak memenuhi syarat-syarat lain yang ditetapkan oleh sesuatu kursus.
  - 8.1.4. menghadapi tindakan tatatertib berat misalnya terlibat dengan kes jenayah dan lain-lain tindakan yang boleh menjejaskan profesyen kedokteran.
  - 8.1.5. mempunyai sikap yang tidak bersesuaian sebagai seorang pelajar perubatan dan menjejaskan profesyen kedokteran.  
(Senat Ke-335 - 19 Mac 2008)

- \* Rujuk - 1. Akta Universiti dan Kolej Universiti 1971. Kaedah-kaedah Universiti Kebangsaan Malaysia (Tatatertib pelajar) 1999.
- 2. Peraturan Tatatertib Pelajar Fakulti Perubatan UKM 2014

## **9. Penggantungan Pendaftaran, Kebenaran Tidak Mendaftar Dan Penangguhan Peperiksaan**

### 9.1. Pertimbangan Untuk Penggantungan Pendaftaran

- 9.1.1. Seseorang calon yang sakit untuk tempoh yang agak lama boleh diberi penggantungan pendaftaran untuk sesi-sesi tertentu oleh Dekan Fakulti dan disahkan oleh mesyuarat Fakulti. Dalam kes-kes seperti ini perakuan daripada doktor adalah diperlukan. Perakuan yang bukan daripada doktor boleh dipertimbangkan dalam kes-kes tertentu selepas calon berkenaan telah menjalani rawatan doktor-doktor berkenaan terlebih dahulu. Dalam kes sakit jiwa, kebenaran untuk mendaftar semula tertakluk kepada perakuan doktor-doktor yang berkenaan.
- 9.1.2. Seseorang pelajar yang menghadapi masalah lain daripada perenggan 9.1.1 di atas boleh juga diberi penggantungan pendaftaran untuk sesuatu Sesi tersebut oleh Fakulti tertakluk kepada Dekan Fakulti berpuas hati bahawa masalahnya itu akan menjejaskan pembelajarannya pada Sesi berkenaan. Permohonan menggantung pendaftaran boleh dibuat sehingga minggu ke 10 sesuatu semester. Permohonan selepas minggu ke-10 tidak akan dipertimbangkan tetapi pelajar hendaklah memohon untuk menangguhkan peperiksaan.

### 9.2. Pertimbangan Untuk Tidak Mendaftar

- 9.2.1. Calon-calun yang telah mendapat pengesahan daripada doktor bahawa ia telah hamil antara 6 – 7 bulan pada waktu pendaftaran dinasihatkan tidak mendaftar pada semester tersebut.
- 9.2.2. Seseorang calon boleh dibenarkan oleh Dekan Fakulti untuk tidak mendaftar pada sesuatu semester dengan syarat ia memohon secara bertulis kepada Dekan dengan mengemukakan alasannya.

### 9.3. Pertimbangan Bagi Penangguhan Peperiksaan

- 9.3.1. Calon-calun yang sakit atau menghadapi gangguan-gangguan

lain sewaktu peperiksaan boleh memohon kepada Dekan Fakulti dan disahkan oleh mesyuarat Fakulti untuk menangguhkan pengambilan peperiksaan berkenaan. Permohonan untuk menangguhkan peperiksaan untuk kursus berkenaan hendaklah dibuat dalam tempoh 48 jam selepas peperiksaan itu diadakan.

- 9.3.2. Permohonan untuk menangguhkan pengambilan peperiksaan semester atas sebab-sebab kesihatan hendaklah disertakan dengan pengesahan doktor yang merawat calon berkenaan seperti pada perenggan 9.1.1 di atas. Permohonan atas sebab-sebab lain boleh dipertimbangkan atas budi bicara Fakulti. Peperiksaan gantian diadakan semasa Peperiksaan Ulangan Semester.

#### 9.4. Status Sebagai Seorang Pelajar Universiti

- 9.4.1. Calon-calon yang telah diberi penggantungan pendaftaran dan kebenaran tidak mendaftar akan hilang tarafnya sebagai pelajar Universiti dan dengan demikian beliau tidak berhak mendapat atau menggunakan kemudahan-kemudahan Universiti yang diberikan kepada calon-calon sehingga beliau mendaftar semula selepas tempoh berkenaan.

#### 9.5. Tempoh Pendaftaran Semester Semasa Menggantungkan Pendaftaran/ Tidak Mendaftar

- 9.5.1. Tempoh yang terlibat dengan penggantungan pendaftaran/tidak mendaftar atas sebab-sebab kesihatan tidak diambilkira sebagai sebahagian daripada keperluan maksimum yang dibenarkan bagi melayakkan diri untuk mendapatkan sesuatu ijazah.
- 9.5.2. Tempoh semester yang terlibat dengan penggantungan pendaftaran/tidak mendaftar atas sebab-sebab selain daripada kesihatan diambil kira (kecuali bagi tempoh dua semester yang pertama) sebagai sebahagian daripada keperluan maksimum yang dibenarkan bagi melayakkan diri untuk mendapat ijazah.
- 9.5.3. Tempoh penggantungan pendaftaran/tidak mendaftar tidak boleh melebihi dua semester berturut-turut setiap kali kecuali atas sebab-sebab kesihatan. Tempoh maksimum yang dibenarkan untuk menggantungkan pendaftaran ialah sebanyak empat (4) semester kecuali atas sebab-sebab kesihatan.

## **10. Penyimpanan Kertas-Kertas Jawapan Peperiksaan Dan Rayuan-Rayuan Terhadap Keputusan Peperiksaan**

### 10.1. Kertas-kertas Jawapan Peperiksaan

- 10.1.1. Semua skrip jawapan calon-calon bagi sebarang peperiksaan Universiti hendaklah diserahkan kepada Ketua Jabatan untuk disimpan.
- 10.1.2. Ketua Jabatan hendaklah menyimpan dengan selamat skrip jawapan itu untuk tempoh selama sekurang-kurangnya tiga bulan selepas pemberitahuan mengenai keputusan peperiksaan berkenaan dikeluarkan oleh Pendaftar.
- 10.1.3. Tertakluk kepada perenggan 10.1.4., semua skrip jawapan peperiksaan hendaklah dimusnahkan dengan secepat mungkin selepas genap tempoh tiga (3) bulan seperti yang tersebut dalam Peraturan-peraturan di atas.
- 10.1.4. Dalam kes-kes yang rayuan terhadap keputusan peperiksaan yang dibuat oleh seseorang calon, skrip-skrip jawapan berkenaan tidak boleh dimusnahkan kecuali selepas Fakulti telah mengesahkan keputusan penyemakan semula.

### 10.2. Rayuan Untuk Menyemak Semula Keputusan Penilaian Kursus

- 10.2.1. Sesuatu rayuan untuk menyemak semula keputusan penilaian kursus hendaklah disampaikan secara bertulis kepada Pendaftar oleh calon yang berkenaan dalam masa dua (2) hingga empat (4) minggu kalendar selepas keputusan peperiksaan diumumkan. Sebarang rayuan yang diterima selepas tempoh ini tidak boleh diberi pertimbangan.
- 10.2.2. Setiap rayuan yang dikemukakan hendaklah menyatakan kursus atau kursus-kursus yang diminta disemak semula.
- 10.2.3. Bayaran yuran sebanyak RM25.00 bagi tiap-tiap satu kursus yang diminta disemak semula hendaklah disertakan dengan rayuan berkenaan. Bayaran ini tidak boleh dituntut balik.
- 10.2.4. Apabila diterima sesuatu rayuan, Pendaftar hendaklah merujukannya kepada Dekan Fakulti berkenaan. Dekan Fakulti selepas berunding dengan Ketua Jabatan berkenaan

boleh melantik suatu panel pemeriksa bagi menyemak semula keputusan penilaian kursus berkenaan.

- 10.2.5. Panel pemeriksa hendaklah terdiri daripada Ketua Jabatan, pemeriksa asal kursus berkenaan dan sekurang-kurangnya seorang pemeriksa lain yang bidangnya sama atau hampir sama dengan bidang berkenaan.
- 10.2.6. Perakuan-perakuan panel pemeriksa hendaklah dikemukakan bagi pertimbangan mesyuarat Fakulti. Keputusan Fakulti mengenai penilaian semula kursus-kursus berkenaan hendaklah dikemukakan bagi pengesahan Senat sebelum disampaikan kepada calon berkenaan, sekiranya ada perubahan.
- 10.2.7. Setiap keputusan yang dibuat oleh Fakulti menurut kaedah ini dan disahkan oleh Senat adalah muktamad dan sebarang rayuan selanjutnya terhadap keputusan tersebut tidak boleh dilayan.

### 10.3. Rayuan Untuk Meneruskan Semula Pengajian

- 10.3.1. Seseorang calon yang mendapat keputusan “Gagal dan diberhentikan” oleh sebab gagal memenuhi syarat-syarat untuk meneruskan pengajian boleh mengemukakan rayuan terhadap keputusan tersebut.
- 10.3.2. Setiap rayuan hendaklah dikemukakan kepada Pendaftar dalam tempoh empat (4) minggu selepas pengumuman rasmi keputusan peperiksaan dan setiap rayuan hendaklah disertai dengan bayaran yuran RM25.00. Bayaran ini tidak boleh diberikan pertimbangan.
- 10.3.3. Apabila diterima sesuatu rayuan, Pendaftar hendaklah merujukkannya kepada Dekan Fakulti berkenaan. Dekan Fakulti hendaklah melantik suatu Jawatankuasa Rayuan untuk mempertimbangkannya.
- 10.3.4. Jawatankuasa Rayuan tersebut hendaklah terdiri daripada Dekan sebagai Pengerusi, Timbalan Dekan yang berkaitan dengan Hal Ehwal Akademik Pelajar, Ketua Jabatan yang berkenaan dan sekurang-kurangnya seorang ahli Fakulti yang berkaitan dengan pengajaran/pembelajaran bagi pelajar serta Pendaftar atau wakilnya sebagai Setiausaha.

- 10.3.5. Jawatankuasa tersebut hendaklah mempunyai kuasa-kuasa berikut:
  - 10.3.5.1. menerima atau menolak sesuatu rayuan ;
  - 10.3.5.2. membuat keputusan terhadap semua rayuan yang dipertimbangkan ;
  - 10.3.5.3. memperakukan kepada Fakulti keputusan yang telah dicapai terhadap semua rayuan yang dipertimbangkan dan memperakukan, jika ada, rayuan yang tidak layak dipertimbangkan.
- 10.3.6. Perakuan yang dibuat oleh Fakulti mengenai perkara tersebut hendaklah dikemukakan kepada Senat untuk pengesahan.
- 10.3.7. Setiap keputusan yang dibuat oleh Fakulti menurut kaedah ini dan disahkan oleh Senat adalah muktamad dan sebarang rayuan selanjutnya tidak boleh dilayan.

## **11. Umum**

- 11.1. Peraturan ini dan semua tafsiran mengenai yang dibuat oleh Senat dari masa ke semasa hendaklah berkuatkuasa terhadap pelajar-pelajar baru pada dan selepas tarikh berkuatkuasa.
- 11.2. Peraturan-peraturan sebelumnya hendaklah terus berkuatkuasa terhadap pelajar-pelajar yang telah memulakan program pengajian mereka mengikut peraturan lama sebelum atau selepas tarikh berkuatkuasa dan sehingga semua mereka yang layak untuk mendapatkan ijazah telah mendapat ijazah.
- 11.3. Senat boleh membenarkan apa-apa pengecualian yang difikirkan sesuai daripada kehendak-kehendak Peraturan ini.



**AHLI JAWATANKUASA  
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