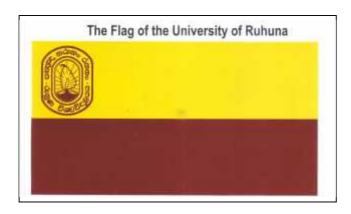




Student Handbook
For Medical Students
Faculty of Medicine
University of Ruhuna

**2019** (Last modification 7/6/2019)



# රුහුණ විශ්වවිදහලයිය ගීතය

මනිලන හිටලක දකුණේ විරුවන් මිනි කළ දෙරණේ පඬුවන් වොරුළුණු පොරණේ සරසවියයි මේ රුකුණේ

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# <u>රුහුණ වෛදා පීඨ ගීතය</u>

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# THE VISION AND MISSION OF THE UNIVERSITY OF RUHUNA

# **VISION STATEMENT**

To be the prime intellectual thrust of the nation.

# **MISSION STATEMENT**

To advance knowledge and skills through teaching, research and services to serve the society.

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# **CHAPTER 1**

# UNIVERSITY OF RUHUNA

The Ruhuna University College was established on 1<sup>st</sup> January 1979 under the section 24 of the University ActNo.16of 1978. The Ruhuna University College was given full university status on 1<sup>st</sup> February 1984. The University of Ruhuna is located on five campuses. The administrative headquarters as well as the Faculty of Fisheries and Marine Sciences & Technology, Faculty of Humanities and Social Sciences, Faculty of Graduate Studies, Faculty of Mangement and Finance, and the Faculty of Science are situated at Wellamadama in Matara. The Faculty of Agriculture is located at Mapalana, Kamburupitiya, the Faculty of Engineering at Hapugala, the Faculty of Medicine at Karapitiya, Galle, the Faculty of Technology at Kamburupitiya and the Faculty of Allied Health Sciences at Uluvitike, Galle.

## **Organizational Structure**

#### Chancellor

The Chancellor, the ceremonial and titular Head of the University, presides over the university convocation. The President of the Democratic Socialist Republic of Sri Lanka nominates the Chancellor for a period of five years.

# **Vice Chancellor**

The Vice Chancellor is the principal executive officer, principal academic officer, and chief accounting officer of the University. The President of the Democratic Socialist Republic of Sri Lanka appoints the Vice Chancellor from the three nominations made by the University Council for a period of three years. The Vice Chancellor is the Chairman and ex-officio of both the Council and the Senate of the University and is responsible for the maintenance of discipline.

## **Deputy Vice Chancellor**

The Deputy Vice Chancellor is appointed by the UGC on the approval of the Council of the University. The Deputy Vice Chancellor is responsible for student affairs and substitutes for the Vice Chancellor as and when it is necessary.

#### Dean

The Faculty Board elects a Dean for each faculty from among the Heads of Departments for a period of three years. The Dean is the academic and administrative Head of the Faculty.

# Registrar

The Council of the University appoints the Registrar. The Registrar is the ex-officio secretary of both the Council and the Senate. The Registrar is responsible for general administration, conduction of examinations, publication of results and discipline of the non-academic staff. The Registrar functions subject to the direction and control of the Vice Chancellor. The Registrar is also the assistant accounting officer of the University and is responsible for the custody of the records and the property. In this connection, Deputy Registrars, Assistant Registrars, and the general administration with its many departments and divisions assist the Registrar.

#### Librarian

The Council, subject to the direction and control of the Vice Chancellor, appoints the Librarian and he is responsible for the administration of the libraries of the University. The Librarian is an ex-officio of the Senate and the Chairman of the Library Committee unless the Vice Chancellor himself chairs the committee.

#### Bursar

The Bursar, appointed by the University Council is responsible for financial administration and the maintenance of accounts subject to the direction and control of the Registrar. He is also the custodian of the funds of the University, in addition to being responsible for the procurement of supplies and the arrangement of all payments. The preparation of the annual statements of accounts is a key function of the Bursar.

# Officers of the University

Chancellor Most Venerable Rajakeeya Panditha Pallaththara Sumanajothi Nayaka Thero

Vice Chancellor Prof Sujeewa Amarasena

Deputy Vice Chancellor Prof E S P Chandena

Registrar Mrs. P.S. Kalugama

Contact details of all University officers and other information are on the University Website (www.ruh.ac.lk)

# **CHAPTER 2**

# **FACULTY OF MEDICINE**

The Faculty of Medicine was established in the premises of the General Hospital, Galle, in July 1980, initially affiliated to the University of Colombo. Although the first five batches of medical students were admitted to the Ruhuna University College, they attended the preclinical course at the Faculties of Medicine in Colombo and Peradeniya. The first batch of students admitted in 1978 and successful at the Second Examination for Medical Degrees held in Colombo and Peradeniya, commenced their Para-clinical and clinical training at Galle in 1980.

Construction of buildings for the Faculty at Karapitiya commenced in December, 1980 and the Faculty moved to its new premises in September 1983. From the Academic Year 1983/84 onwards, students were admitted direct to the Faculty of Medicine, Galle and the entire course of Bachelor of Medicine and Bachelor of Surgery (MBBS) began to be conducted at the Faculty. During the last decade, Faculty started three more undergraduate degree programmes; Bachelor of Science in Nursing, Bachelor of Science in Medical Laboratory Science and Bachelor in Pharmacy.. These three degree programmes were moved to the newly established Faculty of Allied Health Sciences in 2017.

The MBBS Degree awarded by the Faculty of Medicine, University of Ruhuna is recognized by the Sri Lanka Medical Council. This degree is placed at the level 6 of the Sri Lanka Qualifications Framework (SLQF).

The Faculty provides academic, research and service functions through its 15 academic departments and three units that are recognized by the University Grants Commission.

The Teaching Hospital at Karapitiya (THK) is situated oppersite the Faculty of Medicine. Apart from major disciplines such as internal medicine, psychiatry, surgery and paediatrics, THK provides a wide range of services including renal transplant, major cardiac surgery, emergency & trauma care and intensive care in many fields. Obstetrics and Gynaecology units are situated in the TeachingHospital at Mahamodera. Teaching in all clinical disciplines is done in these two hospitals. Comminuty training component of Community Medicine is done in the Field Training Area at Bope-Poddala, located close to the Faculty of Medicine. Students also receive training in rural health at Akuressa District Hospital.

# Officers of the Faculty

Post	Officer	Internal phone no.
Dean	Prof. Vasantha Devasiri	100
Senior Assistant Registrar	Mr Isuru Kalpage	102
Senior Assistant Bursar	Mrs. A. Anusha	105
Senior Assistant Librarian	Mr. K.T.S. Pushpakumara	150

# **Facilities in the Faculty**

The Faculty of Medicine in the Univeirty of Ruhuna is the third oldest medical faculty in the country. Situated in an area of about 8 acres, it is one of the most spacious of the medical faculties in the country. Academic activities occur in four large buildings. The largest of which is occupied by the Para-clinical departments and the Department of Physiology. The pre-clinical block houses the Departments of Anatomy and Biochemistry. The Administration block contains the main administrative offices, library, two lecture theatres, a computer-aided learning laboratory, canteen and common rooms for students, academic and non-academic staff members. In 2003, Clinical Block; a three storied 3000 square meter building was added to the Faculty

infrastructure. This modern building houses five clinical departments in addition totutorial rooms, laboratories, clinical skills lab, clinics and an air conditioned lecture theatre.

A 950 seat, 1000 square meter air-conditioned auditorium is the venue for many academic and cultural activities. An air conditioned conference hall with a seating capacity of 100 is also available.

Students are provided with a number of common facilities. This includes a number of hostels situated in the Faculty premises. Kuwait and STEMCOR House hostels can accommodate 400 and 160 students, respectively. The addition of these two hostels has enabled the Faculty to provide residential facilities to all medical studentsnot appropriate). There are ten fully furnished double occupancy rooms for visitors within the Faculty premises in addition to a lounge and a pantry.

The Faculty has a Medical Exhibition Centre that is open to the public including school children. It displays many prosected human bodies, body parts and organs as well as two and three-dimensional models of organs and systems of the human body in a viewing area of over 6,000 square feet. It is specially developed and designed to assist G.C.E. Ordinary and Advanced Level students, studying Biological Sciences.

# Aims and Objectives of the Faculty

## The Aims of the Faculty of Medicine are

- 1. to train medical undergraduates to function as basic doctors.
- 2. to provide facilities for postgraduate training of health personnel.
- 3. to provide, for the Southern Province of Sri Lanka
  - a diagnostic laboratory service
  - a clinical investigation unit
  - a nuclear medicine unit
  - a medical library service
  - a museum for health education
  - a consultative medico-legal service and
  - a comprehensive occupational health service.

# The objectives of the Faculty are that at the end of the period of undergraduatetraining doctors should

- 1) adopt an empathic and holistic approach to patients and theirproblems and be motivated to serve the people of Sri Lanka.
- 2) have developed positive attitudes towards patients, the community and other members of the health team, and be aware of rights of patients.
- 3) have a perception of the ethical issues relating to individual doctor-patient relationships with other professionals and with society as a whole.
- 4) possess the skills to communicate effectively in both national languages and in English with patients, relatives, carers and the healthcare team.
- 5) have the desire and capability to maintain professional standards.
- 6) demonstrate knowledge of structure and function of the human body and their inter-relationships in health and disease.
- 7) demonstrate knowledge & skills to diagnose, treat, follow up and prevent diseases commonin Sri Lanka and manage medical emergencies with the available resources.
- 8) be aware of other diseases which illustrate important principles in medical science and demonstrate the basic knowledge of lesscommon diseases.
- 9) be able to recognize serious diseases in the early stages.
- understand and engage in reflective practice, audit and self appraisal, be aware of limitations of their professional skills, available facilities and be able to recognize conditions where referral is necessary.
- be able to carry out basic medico-legal procedures, and comply with legal and administrative responsibilities applying the principles of confidentiality, consent and integrity.
- 12) have a knowledge of the managerial skills required to administer healthinstitutions and health teams and be able totake a leadership role when necessary.
- posses skills to efficiently and effectively manage physical resources, human resources, financial resources and information resources in ahealthcare setting, and be able to take a leadership role when necessary.
- 14) have the knowledge to deliver Primary health care.
- develop knowledge, attitudes and skills in prevention of diseases and promotion of healthtaking into consideration social, cultural and economic characteristics of the individual and the society.

- 16) be aware of the principles of behavioural sciences as applied to health and practice of medicine.
- 17) be aware of alternative systems of medicine practiced in the country.
- 18) be capable of continuing self-learning, analytical and critical thinking reasoning and decision making skills.
- 19) be equipped to undergo further post-graduate training.
- 20) recognize the importance of issues such as stress reduction, selfcare and avoiding unhealthy and unethical practices.
- 21) demonstrate the skills of being a life long learner.

# **CHAPTER 3**

# **ACADEMIC REGULATIONS AND PROCEDURES**

# 3.1 THE DEGREE OF MBBS (RUHUNA) - OUTLINE OF COURSES OF STUDY

The Faculty of Medicine offers study courses leading to the Bachelor of Medicine and Bachelor of Surgery degree. Instruction in all subjects takes the form of lectures, tutorials, practicals, clinicals and ward classes. The medium of instruction is English.

The Pre-clinical course is of five terms at the end of which students sit the 2<sup>nd</sup>MBBS examination in Anatomy, Biochemistry and Physiology. This examination is held twice a year. A student may be referred in one or two of these subjects but he shall, in all, be allowed only 4 attempts at this examination. There shall be no "grace" chances.

Students commence their clinical training (which continues through the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> years) after they have passed the 2<sup>nd</sup> MBBS examination. A record of clinical appointments is made on the Student Record Book provided. All clinical appointments have to be completed before a student sits the Final MBBS examination. In the 3<sup>rd</sup> and 4<sup>th</sup> years, students study Para-clinical subjects as well. At the end of the 3<sup>rd</sup> year students sit the 3<sup>rd</sup> MBBS Part I examination (Microbiology and Parasitology), and at the end of the 4<sup>th</sup> year, the 3<sup>rd</sup> MBBS Part II examination (Community Medicine, Forensic Medicine, Pathology and Pharmacology). Each part of the 3<sup>rd</sup> MBBS examination is held twice each year.

A student shall complete his Final Examination *either* within 6 years or 12 scheduled attempts after the first scheduled attempt, all periods of exemption granted by the Senate being excluded when computing this six year period, *or* within 10 years after registration as a student of the Faculty of Medicine, which ever is less. The Final MBBS examination is held twice a year.

#### **Duration of course**

# Approximately 5 years

# Subjects:

1<sup>st</sup> and 2<sup>nd</sup> Years Anatomy

Biochemistry

Physiology

3<sup>rd</sup> Year Microbiology

Parasitology

Community Medicine
Forensic Medicine

Pathology

Pharmacology

4<sup>th</sup> Year Community Medicine

Forensic Medicine

Pathology

Pharmacology

Medicine

Obstetrics & Gynaecology

**Paediatrics** 

Psychiatry

Surgery

5<sup>th</sup> Year Medicine

Obstetrics & Gynaecology

**Paediatrics** 

**Psychiatry** 

Surgery

Special subjects (Short courses in the 4<sup>th</sup> and 5<sup>th</sup> years):

Anaesthesiology

Cardiology

Dermatology

Otorhinolaryngology

Neurology

Oncology

Orthopaedic Surgery

Ophthalmology

Radiology

Rheumatology

Rural Health

Sexually Transmitted Diseases

Tuberculosis

# **3.2 RULES FOR STUDENTS**

## 3.2.1 GENERAL RULES

Some general rules applicable to students of the Faculty of Medicine are given below. A more comprehensive list of rules issued by the University of Ruhuna is given separately.

Any change to the address provided to the Faculty must be immediately brought to the notice of the Dean.

No student is permitted to be absent from academic work for more than 7 days without informing the Dean.

Students doing clinical appointments are expected to work in the wards during public holidays unless they have obtained prior leave from the Consultant to whom they are alllocated.

#### In case of illness

(a) Illness during term time

If a student is taken ill during term time he should inform the UMO-Designate as early as possible. If the student is unable to do so, he/ should inform the Dean via registered post as early as possible, AND submit, a valid medical certificate issued by one of the persons listed under (c) below, within SEVEN DAYS of falling ill.

(b) Illness at examination time (including continuous assessment)

If a student is taken ill immediately before or during any part of an examination he should inform the UMO-Designate as early as possible. If the student is unable to do so for a valid reason, he should inform the Dean via registered post as early as possible AND submit a valid medical certificate from one of the persons listed under (c) below, within SEVEN DAYS of falling ill.

- (c) Persons entitled to issue valid medical certificates for the above purposes
  - (i) The UMO-Designate.
  - (ii) A consultant in any government hospital
  - (iii) A District Medical Officer (DMO) in a government hospital.
- (d) PLEASE NOTE that medical certificates from medical officers other than those listed will NOT BE ACCEPTED.
- (e) A medical certificate is not valid unless it has been submitted within ONE WEEK of the illness.

Students are expected at all times to dress neatly and behave with decorum. Gathering together and talking in loud tones whether in hospital, clinic or in the vicinity of the offices, library or lecture halls should always be avoided. Smoking is prohibited in the premises of the Faculty of Medicine and in the Teaching Hospitals.

Neither tudents nor a student body shall collect money for any purpose without written permission from the Dean and the Vice Chancellor.

Batches of students or student bodies who plan to go on trips must obtain permission to do so from the Student Counselor, Dean and the Vice Chancellor.

Students or student bodies who intend to hold meetings or socials in the Faculty premises should obtain permission from the Dean.

#### 3.2.2 CODE OF CONDUCT FOR CLINICAL STUDENTS OF THE FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA

# 1. Clinical Groups and appointments

No student shall change the clinical group or the clinical appointment allocated to him without the prior permission of the Clinical Coordinator.

# 2. Attendance and punctuality

Attendance at clinical work is compulsory. The student should obtain prior leave from the clinical teacher concerned before he absents himself from clinical work. The student should spend the full amount of time scheduled in the timetable in the wards.

- **3.** The student's dress should be neat and clean. Male should wear a trouser with a shirt and covered shoes. Wearing of overcoats is desirable. Hair should be combed neatly and face fully shaven.
- 4. In the corridors and public areas of the hospital, students should not talk loudly and should not block corridors.
- **5.** On entering the wards the students should identify themselves to the ward staff and obtain permission to see patients. Do not obstruct the working of ward staff.
- 6. Students should not smoke or chew betel in the hospital premises nor should he be under the influence of alcohol.
- 7. Students should obtain consent of the patient/guardian before examining a patient. Do not disturb the patient if he is asleep, having a meal or feeling uncomfortable. When examining a patient of opposite sex it is desirable to have a

chaparone. Expose only the part that is examined and have adequate screening around the patient. Do not examine patients during visiting hours.

## 8. Conduct with the patients

- (a) Student should introduce himself to the patient and address the patient suitably with respect. Student should be courteous and considerate to the patient.
- (b) Under no circumstance, student should give treatment, medicine, money, tobacco, drug, alcohol or any type of food.
- (c) Student should maintain strict professional secrecy with regard to the information obtained from the patient.
- (d) Student should not discuss the patient's condition and prognosis in the presence of the patient.
- (e) Student should educate the patient about management and prevention of the disease. Student should develop competence in giving such information.
- (f) The relationship of the students with patients and their visitors should be at a professional level.

# 9. Hospitals records

Students should not remove hospital records, radiographs, ultrasound scans, echocardiograms, CT scans, MRI scans, ECG or laboratory reports of patients. Strict confidentiality should be maintained with regard to information obtained from records.

## 10. Hospital equipment

Student should use hospital equipment like sphygmomanometers, glassware, thermometers, gloves etc. with utmost care. Accidential breakages of such equipment should be brought to the immediate notice of ward staff.

## 11. Out of bounds period

When clinical examinations are in progress the hospital is made out of bounds for medical students. During such periods students are expected to keep away from the wards and doctors' quarters. However, if a student wishes to visit a close relative in the ward,he shall visit the ward during visiting hours after obtaining prior permission from the consultant in charge and the Dean.

## 12. Communicable diseases

Students who are suffering from a communicable disease should not visit the wards. If in doubt they should consult the University Medical Officer or a person appointed by the Faculty to act in that capacity. In addition they should inform the clinical teacher.

## 13. Consulting specialists and other medical staff

The student should always obtain prior permission and make an appointment when he/she, a relative or a friend of the student wishes to consult a specialist or any other doctor in the hospital.

## 14. Treatment and advice by students

The student should refrain from prescribing and treating patients until they are qualified. No surgical procedure should be done without approval of the ward staff.

## 3.2.3 ATTENDANCE, EXAMINATIONS

#### Attendance at classes

An attendance of 80% (or 65% with medical certificates) is required for signing up student Appointment Books. The medical certificate has to conform to the regulations given under General Rules for Students.

# Hospital and clinical work

For clinical training, students are grouped into batches. Students are expected to follow the schedules drawn up for this purpose by the Dean's Office/Clinical Coordinator. Any unauthorized changes of appointments may result in the cancellation of the appointments with the possible consequence of postponement of the Final Examination.

Clinical appointments which are changed without written permission from the Dean will not be recognized for the course.

Students are reminded that they have to conform to the rules of medical institutions they work in. Students should also be particularly mindful of the human rights of patients and be aware that students have no inherent right to interrogate or examine patients.

# Eligibility to sit examinations

No student will be eligible to sit an examination of the Faculty if he/she has not obtained the signature of the relevant teachers for satisfactory attendance at tutorials, practical classes, ward classes, demonstrations and clinical attachments. The signature should be obtained on the last day of the respective clinical classes.

Students who have defaulted in respect of University dues, even though they may have satisfied stipulated academic requirements, will not be permitted to sit any examination.

# 3.3 By-laws regarding student discipline

Please refer to the documents on by-laws regarding student discipline given to you at the time of admission to this University.

# **CHAPTER 4**

# MANAGEMENT INFORMATION SYSTEM OF THE FACULTY

# Fees

Registration Fees - Rs.200 per year

Medical Fee - Rs.50 per year

Science Deposit Fee - Refundable deposit of Rs.50 to be paid on admission

Library Fee - Refundable deposit of Rs.10 to be paid on admission

Repeat Examinations - A fee of Rs.100 per subject is charged at all repeat examinations.

Issue of certificates to Graduates

Academic Record Rs.100
Academic Transcript Rs.200
Dean's letter Rs. 50

#### **Student Loans**

No scheme available at present.

## **Bursary Scheme**

Bursaries are provided to students who are entering the University, based on parents' income, distance from residence to University and the number of school going brothers and sisters. Currently, the monthly bursary payment is Rs. 2400.00. Bursary money is paid as ten installments in each academic year. The Bursary may be stopped for the following reasons.

- 1) If bursary holders fail to pass any examination
- 2) If students' work, conduct and attendance are unsatisfactory.
- 3) If he/she conducts himself/herself in an indisciplined manner.

Application forms for Bursaries can be obtained from the Student Welfare Branch of the University of Ruhuna, Wellamadama, Matara.

# **Scholarships**

The following scholarships are available to students of the Medical Faculty.

- a) Government Scholarships;
  - Granted to student who are eligible to extend their Grade 5 Scholarships.
- b) Mahapola Scholarships;

Mahapola Scholarships are awarded by the Mahapola Trust Fund of the Ministry of Tradeand Shipping to the students who are entering the University. Currently the monthly instalment of the Mahapola Scholarship is Rs. 5000.00.

## Conditions

- i) Scholarship monies are paid in ten installments in each Academic year. Scholarship may be cancelled if student's work, conduct and attendance are found to be unsatisfactory or if the student fails to obtain a pass at each examination in the University.
- ii) Endowed Scholarship

Endowed Scholarships are awarded to students who have not obtained Mahapola Scholarships, Bursaries or other Scholarships. Selections are made for each Scholarship, by calling for applications based on the conditions of each scholarship.

#### **Student Accommodation**

Accommodation is available for medical students on the site of the Faculty of Medicine in Karapitiya. Applications should be made to the Senior Assistant Registrar, Faculty of Medicine, Galle or to the Senior Assistant Registrar (Student Welfare) at Matara.

# CHAPTER 5 DEPARTMENT OF ANATOMY

## **Academic Staff**

#### **Professor**

Prof. I. Ilayperuma - BVSc (Perad.), PhD (Otago)

## **Senior Lecturers**

Dr. M.B.Samarawickrama - MBBS (Ruhuna), MS General Surgery (Col.)

Dr. P.G.C.L.Nanayakkara - MBBS (Ruhuna), M Phil (Perad.)
Dr. P.M.Rodrigo - MBBS (Ruhuna), PhD (Ruhuna)
Dr. E.I.Waidyarathna - MBBS (Ruhuna), PhD (Ruhuna)
Dr. L.W.G.R. Alwis - MBBS (Kelaniya), PhD (Lund.)

Dr. L.B.L.Prabodha - MBBS (Ruhuna), MPhil (Kelaniya)

Dr. S.K.Y. Iroshani Kodikara - MBBS (Colombo), MD Radiology (Colombo)

#### **ACADEMIC PROGRAMME**

Course duration – Five terms (First to fifth terms of the academic programme, conducted during the first and second years of teaching)

Subject area	Teaching/Learning Method	Term
Gross Anatomy	Dissections 250 hrs.	1 <sup>st</sup> – 4 <sup>th</sup>
i ! !	Lectures 20 hrs.	$1^{1} - 4^{1}$
i I I	Tutorials 64 hrs.	1 1 - 4 th
Histology	Lectures 30 hrs.	1 <sup>st</sup> – 3 <sup>rd</sup>
! ! !	Practicals 48 hrs.	1 <sup>st</sup> – 3 <sup>rd</sup>
Embryology	Lectures 24 hrs.	1 - 3 rd
Neuroanatomy	Lectures 15 hrs.	4 <sup>th</sup> – 5 <sup>th</sup>
: 	Practicals 24 hrs.	4 <sup>th</sup> – 5 <sup>th</sup>
Genetics	Lectures 16 hrs.	5 <sup>th</sup>
Clinical Anatomy	Lectures 25 hrs.	1 - 5 <sup>th</sup>

#### Recommended textbooks

This booklist is not intended to be fully comprehensive and students should consult departmental staff on aspects not covered. Books shown as "Essential reading" are recommended for purchase and books shown as "further reading" are optional. Most of these books are available in the Medical Faculty Library.

# **Gross Anatomy**

## **Essential reading**

- Cunningham's Manual of Practical Anatomy
- Clinical Anatomy HarroldEllis

# **Further reading**

- Clinical Anatomy for Medical Students Richard S. Snell
- Grant's Method of Anatomy John Basmajian, Charles E Slonecker
- Clinical Oriented Anatomy Keith L Moore, Arthur F Dalley
- Last's Anatomy Regional and Applied
- Gray's Anatomy –Peter L Williams & Roger Warwick,
- McMins Colour Atlas of Human Anatomy C D H Abrahams, S C Marks & R T Hutchinson
- Atlas of Human Anatomy Gosline, Harris, Humpherson, Whitmore & Willan
- Human Anatomy Regional and Applied D Chaurasia

# Histology

## **Essential reading**

Wheater's Functional Histology

# **Further reading**

- Basic Histology Luiz Carlos Junquiera and Jose Curreiro
- Bailey's Textbook of Histology Wilfred M Copenhaver, Douglas A Kelly & Richard Wood

- A Textbook of Histology Roland C Leeson, Thomas S Leeson & Paporo Anthony A
- Essential Cell Biology Christopher C Widnell & Karl H Pfenninger
- Molecular Biology of the Cell Alberts, Bray, Lewis, Raff, Roberts & Watson

# **Embryology**

# **Essential reading**

Langman's Medical Embryology

# **Further reading**

- Human Embryology Inderbir Singh
- The Developing Human Clinically Oritented Embryologyby Keith L Moore T V N Persaud

# Neuroanatomy

# **Essential reading**

• Clinical Neuroanatomy– Richard S. Snell

# Further reading

- Neuroanatomy for Medical Students J L Wilkinson
- Manter & Gatz's Essentials of Clinical Neuroanatomy & Neurophysiology
- Principles of Neural Science Eric R Kendel, James H Schwartz & Thomas N Jessel

#### **Genetics**

• An Introduction to Medical Genetics – Fraser, Roberts & Pembrey

<sup>\*</sup> Latest edition is always recommended for books given above.

# CHAPTER 6 DEPARTMENT OF BIOCHEMISTRY

# **Academic Staff**

# **Professors**

Prof. K.A.P.W. Jayatilake - B.Sc (SJP), M.Sc (SJP), PhD (Ruhuna)

Prof. R.P. Hewawasam - BSc (Hon, Perad.), MPhil (Ruhuna), PhD (ANU)

## **Senior Lecturers**

Dr. M.T.Napagoda - BSc (Hon, Col.), MPhil (Perad.), PhD (Germany)

Dr. C. M. Wickramathilake - MBBS (Ruhuna), PhD (Ruhuna)

Dr. A. P. Attanayake - BSc (Hon, Perad.), PhD (Ruhuna)

Dr. G.E.D. de Zoysa - MBBS (Ruhuna), PhD (Ruhuna)

Lecturers

Ms.M.R.P. Hasanga - BSc (Hon, Peradeniya)

## **ACADEMIC PROGRAMME**

Course duration – Five terms (First to fifth terms of the academic programme, conducted during the first and second years of teaching)

Subject area	Teaching / learning Method	Term
Cell Biology and Molecular Biology	Lectures - 29 hrs. Tutorials -12 hrs.	1st
i biology	Practicals- 30 hrs.	
	Lectures - 30 hrs.	ī
Metabolism	Tutorials - 16 hrs.	1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup>
	Practicals / Guided Learning Sessions- 24 hrs.	
Food & Nutrition	Lectures - 27 hrs.	2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup>
I I	Tutorials - 12 hrs.	 
<u> </u>	Practicals /Guided Learning Sessions - 18 hrs.	 
	Lectures - 36 hrs.	
Clinical Biochemistry	Tutorials - 20 hrs.	3 <sup>rd</sup> , 4 <sup>th</sup> , 5 <sup>th</sup>
	Practicals /Guided Learning Sessions - 30 hrs.	İ

The course is intended as an introduction to Biochemistry and Molecular Biology for the 2<sup>nd</sup>MBBS students.Biochemistry, the chemical basis of life is studied in four major sections.

The first is the molecular design of life which includes the structure of the cell, structure and function of biomolecules, basic concepts and kinetics of enzymes and bioenergetics.

The second section is on cellular metabolism, emphasizing the enzymatic mechanisms, cellular compartmentalization and integration of metabolic systems.

One major prequisite for the maintenance of health is that there is optimal dietary intake of nutrients. Therefore the third section is on food and nutrition.

The fourth section is an application of the knowledge gained so far in understanding the biochemical basis of health and disease and therapeutic intervention. Biochemical methods used in diagnosis of disease and interpretation of standard chemical pathology reports are alsodone.

Lectures and practical classes are held throughout the course with tutorial classes in small groups every week. An attendance of 80% is required for the student to be eligible to sit the 2<sup>nd</sup> MBBS examination.

## Recommended textbooks

- Harper's Biochemistry R.K. Murray, D.K. Granner, P.A. Mayas & V.W. Rodwell
- Lippincott's Illustrated Reviews Pamela C. Champe, Richard A. Harvey
- Food & Nutrition T.W. Wikramanayake
- Biochemistry LubertStryer
- Principles of Biochemistry Albert L. Lehninger
- Medical Biochemistry John Bayns&Marek H. Dominiczak
- Clinical Chemistry in Diagnosis and Treatment P. D. Mayne
- Textbook of Biochemistry with Clinical Correlations Thomas M. Devlin
- Clinical Chemistry William J. Marshall
- Nutrition Throughout the Life Cycle T.W. Wikramanayake

<sup>\*</sup> Latest edition is always recommended for books given above.

# CHAPTER 7 DEPARTMENT OF PHYSIOLOGY

# **Academic Staff**

## **Professors**

Prof.Sampath Gunawardena - MBBS (Ruhuna), PhD (Ruhuna)

Prof. Mahinda Kommalage - MBBS (Ruhuna), PhD (Uppsala)

Prof. R.S.J. Lenora - MBBS (Ruhuna), MPhil (Ruhuna), PhD (Lund)

**Associate Professor** 

Prof. K. G. Somasiri - MBBS (Perad.), DCH (Col.), PhD (Ruhuna)

**Senior Lecturers** 

Dr. D.C. Wijewickrama - MBBS (Ruhuna), MPhil (Ruhuna)

Dr. S. P. Hewawasam - MBBS (Ruhuna), MD Gastroenterology (Col.)

Lecturers

Dr. Amaranath Karunanayake - MBBS (Ruhuna), PhD (Kelaniya)

# **ProbationaryLecturers**

Dr. Udari Egodage - MBBS (Colombo), MD Medicine (Col.)

# **ACADEMIC PROGRAMME**

Course duration – Five terms (First to fifth terms of the academic programme, conducted during the first and second years of teaching)

Subject area	Teaching/ Learning Method	Term
Biological Measurements, SI Units, An introduction to	Lectures - 5 hrs.	 
statistics	Tutorials - 4 hrs.	
1 1	Practicals - 4 hrs.	
Body fluids and concept of homeostasis	Lectures - 7 hrs.	1 <sup>st</sup>
	Tutorials - 4 hrs.	
I !	Practicals - 2 hrs.	 
An introduction to autonomic nervous system	Lectures - 1 hr.	
Cardiovascular Physiology	Lectures - 25 hrs.	l i
! !	Tutorials - 8 hrs.	·
ı !	Practicals - 6 hrs.	 
Respiratory Physiology	Lectures - 12 hrs.	
	Tutorials - 3 hrs.	2 <sup>nd</sup>
!	Practicals - 3 hrs	
Gastrointestinal Physiology	Lectures - 6 hrs.	
i !	Tutorials - 2 hrs.	
White blood cells and immune system	Lectures - 5 hrs.	
! !	Tutorials - 2 hrs.	
! !	Practicals - 4 hrs.	 
Component of integrated learning on Blood*	Lectures - 21 hrs.	
1 1	Tutorials - 8 hrs.	i .
i '	Practicals - 12 hrs.	i 

Renal Physiology	Lectures - 12 hrs. Tutorials - 4 hrs. Practicals - 2 hrs.	3 <sup>rd</sup>
Endocrine Physiology	Lectures - 19 hrs. Tutorials - 5 hrs. Practicals - 1 hr.	
Component of integrated learning on diabetes mellitus*	Lectures - 7 hrs. Tutorials - 2 hrs. Practicals - 3 hrs.	4 <sup>th</sup>
Reproductive Physiology	├ Lectures - 15 hrs. ├ Tutorials - 3 hrs. ├ Practicals - 1 hr.	i i i i i i i i i i i i i i i i i i i
Neuroscience	Lectures - 20 hrs. Tutorials - 9 hrs. Practicals - 11 hrs.	4 <sup>th</sup> & 5 <sup>th</sup>
Miscellaneous Physiology topics	Lectures - 2 hrs.	5 <sup>th</sup>

<sup>\*</sup> Component of integrated learning on Blood and Diabetes Mellitus will be conducted as an integrated learning activity of Biochemistry and Physiology Departments.

## **SEMINAR PROGRAMME**

The seminar programme is conducted in the 2<sup>nd</sup>, 3<sup>rd</sup>and 4<sup>th</sup>terms. It involves group work involving 3-4 students per group. This is an integrated learning experience with the participation of academic staff from the departments of Anatomy and Biochemistry as well. The programme is arranged in such a way that each student be a member of a group which prepare a presentation. The topics include the following; ody fluids, Anaemias, cardiovascular system, respiratory system, gastrointestinal system, kidney, thyroid, pancreas, calcium metabolism, nervous system and alcohol.

## SHORT ANALYTICAL ESSAY

Each student has to write a 3000-4000 word short analytical essay on a topic related to Physiology or Medicine which is assigned to him or her. These topics will be given to them during the 2<sup>nd</sup> term and they will have to complete the assignment and submit the short analytical essay at the end of the 4<sup>th</sup> term. Students will be provided with inputs on literature search and scientific writing. Staff members are allocated as supervisors. 10% of the continuous assessment marks are allocated for this activity.

<sup>\*\*</sup> There are 20 hours of Physiology lectures out of 41 hours of neuroscience lectures.

## **Recommended textbooks**

- Ganong's Review of Medical Physiology by by Kim E. Barrett, Susan M. Barman, Scott Boitano, Heddwen Brooks\*
- Textbook of Medical Physiology by A.C. Guyton and J.E. Hall\*
- Hutchison's Clinical Methods by M. Swash and S. Mason\*
- The student should learn to browse through any other medical textbook that may have information useful to better understanding of Physiology (i.e. Davidson's Principles and Practice of Medicine, Oxford Textbook of Medicine, Textbook of Clinical Medicine by Kumar and Clark etc.)\*

<sup>\*</sup> The latest edition is always recommended for the books stated above.

# **CHAPTER 8**

# **DEPARTENT OF MICROBIOLOGY**

## **Academic Staff**

#### **Professor**

Prof. A de S Nagahawatte - MBBS (Col.), Dip. Med. Micro. (Col.), MD Med. Micro. (Col.)

## **Senior Lecturers**

Dr. W.M.D.G.B. Wijayaratne - MBBS (Ruhuna), Dip. Med. Micro. (Col.), MD Med. Micro. (Col.)

Dr Sunethra Gunasena - MBBS, Dip. Med. Micro. (Col.), MD Med. Micro. (Col.)

## Lecturers

Dr. S.S.Wickramasinghe - MBBS (Ruhuna), Dip. Med. Micro. (Col.), MD Med. Micro. (Col.)

## **Probationary Lecturers**

Dr. H.H.P.M.J.Thabrew - MBBS (Ruhuna), Dip. Med. Micro. (Col.)

Dr. N.P. Weerasinghe - MBBS (Ruhuna), Dip. Med. Micro. (Col.), MD Med. Micro. (Col.)

## **ACADEMIC PROGRAMME**

Course duration – Three terms (Sixth to eighth terms of the academic programme, conducted during the third year of teaching)

Subject Area	Teaching/Learning Method	Term
General	Lectures - 5hrs	; 
Microbiology	Practical Classes/ Fixed Learning Modules (FLM)/ Demonstrations - 7hrs per student	¦ 6 <sup>th</sup> ¦
Immunology	Lectures - 6hrs.	}
!	FLM/ Demonstrations -3hrs per student	6 <sup>th</sup>
Sterilization &	Lectures -2hrs	
Disinfection	, FLM/ Demonstrations -1hr per student	. 6 <sup>th</sup>
Systemic	Lectures - 17hrs.	
Bacteriology	FLM/ Demonstrations /Tutorials- 4hrs per student	6 <sup>th</sup> & 7 <sup>th</sup>
Antimicrobials &	1 1	! ! !
Antimicrobial	Lectures -2hrs	¦ 7 <sup>th</sup> ¦
Chemotherapy	, ,	, , , , , , , , , , , , , , , , , , ,
Systemic Virology &	Lectures -17hrs	
Antiviral Agents	FLM/ Demonstrations /Tutorials-4hrs. per student	7 <sup>th</sup>
Mycology	Lectures - 2hrs.	l I l I
1 !	FLM/ Demonstrations /Tutorial -1hr. per student	7 <sup>th</sup>
Clinical	Lectures - 20hrs.	
Microbiology	FLM/ Demonstrations /Tutorials /Computer	8 <sup>th</sup>
! ! 	Associated Learning -10hrs. per student	'

# Theory

Lectures are conducted on the core knowledge pertaining to subject areas.

## **Practicals**

- Performance of Gram stain and acid fast stain and demonstration of culture characteristics to identify bacteria.
- Practical demonstrations of collection & transport of specimens, culture media, microscopy and culture characteristics of pathogens related to the lecture topics.

# **Self Learning Activities**

1. Fixed Learning Modules (FLM)

FLM provides extra, 'good to know' and 'nice to know' knowledge regarding topics covered in lectures. These are presented on notice boards. Students in small groups are allowed to discuss amongst the group and to write down the important points and queries, which will be discussed interactively at the end of each session by a tutor.

## 2. Small Group Discussions (SGD)

Students are divided into small groups and a leader and a rapporteur will be appointed. They will be given questions to discuss and answer during the first 30 minutes. These questions will be discussed during the next 30 minutes.

# 3. Supervised Directed Self Learning exercise (SDSL)

Students will be divided into small groups and each one will be given a complete handout on the topic of the day. During the first 20 minutes, they will read and understand the topic individually. During the next 20 minutes they will discuss among a small group any areas they cannot understand or need further clarification. The final 20 minutes will be spent on questioning the lecturer/ tutor on the areas needing further clarification. The students will be supervised throughout.

#### Recommended textbooks

- Medical Microbiology. David Greenwood, Richard Slack, John Peutherer, Mike Barer
- Medical Microbiology. Richard V Goering, Hazel M Dockrell, Mark Zuckerman, Derek Wakelin, Ivan M, Roitt, Cedric Mims, Peter L Chiodini.
- Infectious Disease. Barbara A Banister, Norman T Begg, Stephen T Gillespie.
- Microbiology & Infections.Inglis T J J
- Review of Medical Microbiology. Jawetz E, Melinick JL, Adelberg E A
- A Short Textbook of Medical Microbiology. Turk D C, Porter I A
- Immunology for Students of Medicine and Biology. Weir D M
- Essential Immunology.Roitt I M
- Notes on Medical Virology. Timbury M C

<sup>\*</sup> Latest edition is always recommended for books given above.

# **CHAPTER 9**

# **DEPARTMENT OF PARASITOLOGY**

# **Academic Staff**

## **Professors**

Senior Prof Mirani V. Weerasooriya - MBBS (Sri Lanka), DMSc. (Kyushu),FNASSL

Prof. T.Channa Yahathugoda - MBBS (Ruhuna), PhD (Ruhuna)

# **Probationary Lecturers**

Ms. Upeksha Ratnapala - BSc. Mol Bio (Perad)
Dr. Janaka Ruben - MBBS (Ruhuna)

Dr. N.L. de Silva - MBBS (Col.), Dip in Med. Micro

# **ACADEMIC PROGRAMME**

Course duration – Three terms (6<sup>th</sup> to 8<sup>th</sup> terms of the academic programme, conducted during the third year of teaching)

Subject area	Teaching/Learning Method	Term
Protozoology	Lectures (15hrs.),Practicals (16hrs.), Tutorials (7hrs.) Malaria Module* (Lectures-8hrs; Practicals-1hr; Tutorial-1hr, Slide Demonstration (1hr),FLMs (6hrs.)	6 <sup>th</sup> -7 <sup>th</sup>
Helminthology	Lectures (19hrs.), Practicals (9hrs.), Tutorials (4hrs.) / Slide Demonstration (2hrs), FLM (1 hr)	6 <sup>th</sup> -7 <sup>th</sup>

	Lectures (9hrs.) Integrated Lecture(1hr.)Practicals(7hrs.),Tutorials (1hr),FLM (1hr.), Slide Demonstration (1hr.)	8 <sup>th</sup>
arthropods	 	 
Medically	Lectures (2hrs.) Integrated lectures**(1hr.)Practicals (2hrs.)Tutorials (1	, I
important	hr.)	8 <sup>th</sup>
L Snakes	 	 
Miscellaneous -	Lectures (5hrs.) Practical (1hr.), Tutorial (1hr.)	
Introduction to		8 <sup>th</sup>
-Zoonoses		
-Toxic sea		ļ
creatures		

<sup>\*</sup> Resource persons are from Department of Medicine, Peadiatrics, Pathology, Pharmacology and Community Medicine for Malaria module.

## Recommended textbooks

- Medical Parasitology D.R. Arora & B. Arora
- Manson's Tropical Diseases Edited by G.C. Cook & A.Zumla.
- Basic Clinical Parasitology Brown H.W.
- Atlas of Medical Helminthology & Protozoology Jeffry & Leach R.M.
- Lecture Notes on Medical Entomology Service M.W.
- W.H.O. Publications:(Technical Report Series)
  - o Lymphatic filariasis
  - o Parasitic zoonoses
  - o Intestinal protozoans & helminthic infections
  - o Management of acute malaria
  - o Control of lymphatic filariasis
  - Hookworm infection &anaemia
  - Drugs used in Parasitic Diseases
  - Basic Laboratory Methods in Medical Parasitology

<sup>\*\*</sup> Integrated Lectures with the Departments of Medicine and Paediatrics

# **DEPARTMENT OF COMMUNITY MEDICINE**

#### **Academic Staff**

#### **Professor**

Prof. S.K.C.Wimalasundera - MBBS (Perad), DO (Col), PhD (Ruhuna)

Prof. P.V. de Silva - MBBS (Ruhuna), MSc ComMed (Col), MD Com Med (Col)

Prof. P.B. Perera - BSc (Col), MSc (Lond, UK), PG Dip (App Stat) (Col), Ph D (IU,USA),

FFAIMER (USA)

**Senior Lecturers** 

Dr. C.J. Wijesinghe - MBBS (Ruhuna), MSc ComMed (Col), MD Com Med (Col)

Dr. T.T. Ponnamperuma - MBBS (Ruhuna), MPhil (Maaarstricht, Netherlands), Dip. Fam Med (Col)

Dr. P.L.A.N. Liyanage - MBBS (Ruhuna), MD (Dermatology)

## **Probationary Lecturers**

Dr. K.K.W.J.C. de Silva - MBBS (Ruhuna)
Dr. I.L.A.N. Darshana - MBBS (Ruhuna)

#### **ACADEMIC PROGRAMME**

<sup>\*</sup> Latest edition is always recommended for books given above.

Course duration – Six terms (Sixth to eleventh terms of the academic programme, conducted during the third and fourth years of teaching)

# **Teaching / Learning activities**

- Lectures 100hrs.
- Tutorials 20hrs.
- Clerkship Programme-4 weeks per group
- Research project 18 months
- Community Attachment Programme 2½ years (begins at the 6<sup>th</sup> term and continues up to the end of the Professorial Paediatric Appointment.)
- Introductory Clinical Appointment 2- 4 weeks (after the 2<sup>nd</sup> MBBS Part I examination)

Subject Area	Teaching / Learning Method		Tutorials 11 <sup>th</sup> Term
Introductory Lectures	5hrs.	6 <sup>th</sup>	1 ;
Healthcare Delivery System in Sri Lanka	1hr.	6 <sup>th</sup>	2
Behavioral Sciences and Social Medicine	8hrs.	6 <sup>th</sup>	1 .
Health Education	2hrs.	$7^{th} - 8^{th}$	1
Biostatistics	12hrs.	8 <sup>th</sup>	2 ¦
Basic Epidemiology	12hrs.	8 <sup>th</sup>	2
Nutrition	10hrs.	8 <sup>th</sup>	1 ;
Communicable Diseases	4hrs.	8 <sup>th</sup>	1
Non-Communicable Diseases	4hrs.	8 <sup>th</sup>	1 ;
Clinical Epidemiology	4hrs.	9 <sup>th</sup>	1
Research Methodology	8hrs.	9 <sup>th</sup>	1 ;
Demography and Vital Statistics	8hrs.	9 <sup>th</sup>	2
Environmental Health	6hrs.	10 <sup>th</sup>	1
Maternal and Child Health	10hrs.	10 <sup>th</sup>	2
Occupational Health	6hrs.	10 <sup>th</sup>	1

Tot	tal 1	100hrs.	i	20

#### **Seminars and Workshops**

One introductory and one evaluation seminar are held during the community medicine clerkship. Two seminars are held during community attachment programme. A workshop on Research Methodology is carried out prior to the beginning of student research.

## Clerkship programme

Duration - 4 weeks per group. It includes the following activities:

- Attachment to University Field Training Area, Bope-Poddala which includes visits to Medical Officer of Health (MOH) and other Primary Health Care providers, Maternal and Child Health clinics and poly-clinics and the School Medical Inspections of the area.
- Attachment to MOH(Municipality) for learning environmental health and occupational health.
- Attachment for two days to a General Practitioner.
- Attachment to various Public Health Institutions to learn on waste expose, providing safe water, safe food.
- Attachment to institutions that provide social services such as Elderly Homes and Orphanages.
- Attachment to Ayurvedic Hospital to learn on Alternative Medicine in Sri Lanka
- Attachment to factories to learn on Occupational and Environmental Health Public
- Attachment to Port Health Office to learn trans oceanic transmission of diseases.

#### **Student Research Projects**

Selection of a research project and preparation of research proposals are carried out during the 3<sup>rd</sup> year. After obtaining ethical clearance, data collection, data analysis and report writing of the projects are to be carried out during the 1<sup>st</sup> and 2<sup>nd</sup> terms of the 4<sup>th</sup> year and the final research project reports have to be submitted during the 3<sup>rd</sup> term of the 4<sup>th</sup> year one month before the scheduled 3<sup>rd</sup> MBBS (Part II) Examination. A viva voce examination is conducted, and marks given for the viva voce examination and for the final research report are added for the Research Component in the 3<sup>rd</sup> MBBS Part II Examination.

#### **Community Attachment Programme**

Students are grouped into 12 groups and families are allocated to each student that makes a small community for each group. The groups are given the task of investigating into their social, environmental and health problems and implement the primary health care in their communities. The students are assessed time to time for their activities. Two assessments(quarterly) are conducted for each group throughout the course. Field Assessment is arranged during the Clerkship Programme. A final report has to be submitted by each group and marks given for the report and theviva voce Examination on the report constitute the marks for the community attachementprogramme. Community Attachment Programme for a particular group of student lasts till the end of that student group's Professorial Paediatric appointment. Further, evaluative visits by the academic staff of the Department of Paediatrics are carried out during the Professorial Paediatric appointment.

#### Recommended textbooks

- Textbook of Preventive and Social Medicine, K. Park
- Family Health A Manual for Health Workers in Sri Lanka, Family Health Bureau, Colombo.
- Immunization handbook, Epidemiology Unit, Ministry of Health.
- Maternal care package- A Guide to Field Healthcare workers, Family Health Bureau, Ministry of Health.
- Annual Health Bulletin, Ministry of Health, Sri Lanka.
- Essentials of Health Behaviour, Mark Edberg, Jones &Barkleet, 2007
- Health and Behaviour, Institute of Medicine, USA, National Academy Press, 2001
- WER Sri Lanka (Weekly Epidemiological Report), Epidemiological Unit, Ministry of Health
- Annual Report on Family Health, Sri Lanka, Evaluation Unit, Family Health Bureau, Colombo
- Statistical Pocket Book Democratic Socialist Republic of Sri Lanka, Department of Census and Statistics, Sri Lanka
- Statistics at Square One, D.V. Swinscow
- An Introduction to Medical Statistics, Martin Bland
- Teaching Health Statistics Lesson and Seminar outline, S.K. Lwanga, Cho-YookTye, O. Ayeini
- Statistics in Medicine, Theodore Colton

- Basic Epidemiology, R. Beaglehole, R. Bonita
- Epidemiology in Medical Practice, D.J.P. Barker & G. Rose
- Epidemiology in Medicine, Charles H. Hennekens, Julie E. Buring
- Survey Methods in Community Medicine, J.H. Abramson, Z.H. Abramson
- Learning Research A guide to medical student, junior doctors and related professionals, C. Sivagnanasundaram
- Occupational Health An Introductory Course for Health Care Workers, H.M.S.S.D. Herath
- A Manual for the Sri Lanka Public Health Inspector, H.M.S.S.D. Herath
- Nutrition at a glance, Mary E. Barasi
- Perspectives in Nutrition, G rden M. Wardlaw
- Human Nutrition, Mary E. Barasi
- Nutritional Epidemiology, Walter Willett

<sup>\*</sup> Latest edition is always recommended for books given above.

# DEPARTMENT OF FORENSIC MEDICINE

#### **Academic Staff**

#### **Senior Lecturers**

Dr. U.C.P.Perera - MBBS (Col.), DLM, MD Forensic Med (Col),

MA, LLB, DMJ Path (Lond.), MFFLM(UK), Attorney-at-Law

Dr. J. Warushahennadi - MD (Russia), DLM, MD Forensic Med (Col)

Lecturer

Dr. R. H. A. I. Ratnaweera - MBBS(Perad.), DLM, MD Forensic Med (Col)

# **ACADEMIC PROGRAMME**

Course duration – Six terms (6<sup>th</sup> to 11<sup>th</sup> terms of the academic programme, conducted during the third and fourth years of teaching)

#### Course

The course consists of lectures, short appointment in Forensic Medicine, demonstration classes on specimens, autopsy demonstrations and revision tutorial classes.

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I	Subject area	1	Teaching/Learning method	I	Term	1
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Clinical Forensic Medicine	25hrsLectures 5hrsTutorials Clinical appointment – 2 weeks	6 <sup>th</sup> – 11 <sup>th</sup>
Forensic pathology	30 hrs lectures	
	5 hrsTutorials	' 7 <sup>th</sup> – 11 <sup>th</sup> '
Forensic science	15 hrsLectures	
¦	5 hrsTutorials	7 <sup>th</sup> – 11 <sup>th</sup>
Forensic Toxicology	25hrsLectures	i i
	5hrsTutorials	9 <sup>th</sup> – 11 <sup>th</sup>
Medical Law and ethics	15hrsLectures	 
<u> </u>	5hrsTutorials	6 <sup>th</sup> – 11 <sup>th</sup>

#### **Syllabus**

#### **Clinical Forensic Medicine**

Mechanisms of causation of injuries in the living (surface and internal injuries), documentation of injuries, medico-legal classification of injuries, immediate and remote complications of injuries, mechanisms and identification of injuries caused by blunt weapons, sharp weapons, firearms, burns/fires, acids/alkali, lightning, electricity and explosives, regional injuries, road traffic trauma, other transportation injuries, injuries due to falls and mob violence, barotrauma, ageing of injuries and scars, basic concepts of compensation, child abuse and its various forms, domestic violence, elder abuse, examination and documentation of sexual assault, examination for virginity, recent and remote delivery, clinical examination for drunkenness, certification for mental illness, forensic DNA profiling, documentation of medico-legal reports.

## Forensic Pathology & Forensic Science

Concept of brain death, certification of death, post-mortem changes, determination of time since death, cause and manner of death, autopsy procedures, medico-legal (judicial) and pathological(hospital) autopsy, negative and obscure autopsy, high risk autopsy, post-mortem injuries, intraoperative deaths, deaths due to starvation & neglect, environmental deaths, deaths due to asphyxia, deaths due to anaphylaxis, abortion related deaths, maternal deaths, pathology of sudden natural deaths, deaths due to ARDS, management of dead in mass disasters, collection of body fluids at autopsy, documentation of an autopsy report, principles and practice of crime scene examination, different crime scenes, blood stain analysis

## **Forensic Toxicology**

Medico-legal duties of a medical officer in poisoning in hospital context, analytical methods & sample collection in forensic toxicology, common poisons in Sri Lanka, manner of poisonings, agrochemical poisoning, plant poisoning, CO & cyanide poisoning, therapeutic poisoning, heavy metal poisoning, solvent abuse, prescription, storage and accounting of dangerous drugs, pathology and management of drug abuse, deaths due to snakes and non-vertebrates

#### **Medical Law and Ethics**

Legislative enactments in Sri Lanka related to medical practice, legal definitions of injury, hurt, grievous hurt, death, culpable homicide, murder, rash and negligent acts, abortion, infanticide, concealment of birth, rape and incest, unnatural offences and grave sexual abuse, offences related to children, domestic violence, death investigation systems and inquest procedure, dying declaration, consent for medical care, medical ethics, medical negligence, transplantation of tissues, end of life decisions, structure and functions of the Sri Lanka Medical Council, disciplinary procedures of the Sri Lanka Medical Council, certification of fitness to drive a motor vehicle and issue of statutory certificates, historical evolution and application of human rights with special reference to forensic investigation of human rights violations including torture, deaths in custody and enforced disappearances

#### General

Medico-legal service in Sri Lanka, different medico-legal duties, Sri Lankan court system, introduction to forensic dentistry, introduction to forensic psychiatry, introduction to forensic radiology, introduction to forensic anthropology.

#### Recommended textbooks

- Clinical Forensic Medicine by WDS McLay
- Clinical Forensic Medicine: A Physician's Guide by Margaret M Stark
- Forensic Pathology by Bernard Knight
- Forensic Pathology: Principles and Practice by David Dolinak, Evan Matshes& Emma O Lew
- Forensic Pathology by VJM Di Maio & D J Di Maio
- Handbook of Forensic Pathology by V.J.M Di Maio & S.E Dana
- The Pathology of Trauma by J.K. Mason & B.N. Purdue
- The Pathology of Drug Abuse by Steven B Karch
- Management of Poisoning by Ravindra Fernando
- Disposition of Toxic Drugs & Chemicals in Man by RC Baselt
- Oxford Handbook of Forensic Medicine by Jonathan Wyatt, Tim Squires, Guy Norfolk & Jason Payne-James

Medical Ethics Today The BMA's Handbook of Ethics and Law

\*Latest edition is always recommended for books given above

# **CHAPTER 12**

# **DEPARTMENT OF PATHOLOGY**

#### **Academic Staff**

#### **Professor**

Prof. L.M. Mudduwa - MBBS (Col.), Dip Path (Col.), MDHistopath (Col)

#### **Senior Lecturers**

Dr. I.D.Siriwardhana - MBBS (Col.), Dip Path (Col.), MDChemPath (Col)

Dr. K.A.C.Wickramaratne - MBBS (Ruhuna), Dip Path (Col.), MDHaematology (Col)

Dr. T.G.Liyanage - MBBS (Ruhuna), Dip Path (Col.),MDHistopath (Col)

Lecturers

Dr. N.G. Ranawaka - MBBS (Ruhuna), Dip.Path (Col.), MD Histopath (Col)

**Probationary Lecturer** 

Dr. Thilini Wijesiri - MBBS (Ruhuna), Dip Histopath(Col)

#### **ACADEMIC PROGRAMME**

Course duration – Six terms (Sixth to eleventh terms of the academic programme, conducted during the third and fourth years of teaching)

Subject area	Teaching/Learning method Lectures   Practicals   Tutorials			Term
General Pathology	20hrs.	14 hrs.	01hr.	6 <sup>th</sup> and 7 <sup>th</sup>
Tumour Pathology	10hrs.	08hrs.	01hr.	7 <sup>th</sup> and 8 <sup>th</sup>
Systemic Pathology	50hrs.	16hrs.	06hrs.	9 <sup>th</sup> – 11 <sup>th</sup>
Chemical Pathology	12 hrs.	05 hrs.	01hr.	$7^{th} - 11^{th}$
Haematology	16 hrs.	05 hrs.	01hr.	7 <sup>th</sup> – 11 <sup>th</sup>
Total	108 hrs.	48 hrs.	10 hrs.	;;

## Clinicals

One month Clinical Pathology Appointment – Pathology Laboratory, Teaching Hospital, Karapitiya.

#### Recommended textbooks

## Histopathology

- Muirs Textbook of Pathology -14<sup>th</sup> edition David A Levision, Robin Reid, Alastair D Burt, David J Harrison and Stewart Fleming
- Basic Pathology 7<sup>th</sup> edition RamzyCotron, Vinay Kumar,
   Stanely L Robbins

## **Chemical Pathology**

• Clinical Chemistry - 6<sup>th</sup>edition – William J Marshall, Stephen K Bangert

## Haematology

- Essential Haematology 4<sup>th</sup> edition A V Hoffbrand, J E Pettit and P A H Moss
- Haematology for the Medical Student Alvin H Schmaier,
   Lilli M Petruzzelli

- Kumar & Clark's Clinical Medicine 8<sup>th</sup> edition Prayeen Kumar and Michael Clark
- Davidson's Principles & Practice of Medicine 20<sup>th</sup> edition Nicholas A Boon, Nicki R Colledge, Brian R. Walker

# **DEPARTMENT OF PHARMACOLOGY**

## **Academic Staff**

#### **Professors**

Prof. L.M. Hettihewa - MBBS (Perad.), PhD (Ruhuna)
Prof. S.S. Jayasinghe - MBBS (Ruhuna), PhD (Ruhuna)

# **Senior Lecturers**

Dr. J. Nanayakkara - MBBS (Ruhuna), PhD (Ruhuna)
Dr. P.L.G.C. Liyanage - MBBS (Ruhuna), PhD (Ruhuna)

## Lecturers

Dr. A.T.I.M. Amarasinghe - MBBS (Ruhuna)

#### **ACADEMIC PROGRAMME**

Course duration – six terms (sixth to eleventh terms of the academic programme, conducted during the third and fourth years of teaching)

Teaching/Learning Methods Duration (hours) Term

<sup>\*</sup> Latest edition is always recommended for books given above.

Lectures	100	6 <sup>th</sup> – 11 <sup>th</sup>
¦ Tutorials	20	6 <sup>th</sup> – 11 <sup>th</sup>
Therapeutics	10	6 <sup>th</sup> – 11 <sup>th</sup>
Module on bronchial asthma	04	8 <sup>th</sup> /9 <sup>th</sup>
Lab sessions	04	6 <sup>th</sup> – 11 <sup>th</sup>

# The lectures will be given under the following sections

- General pharmacology
- Antimicrobial agents
- Autonomic pharmacology
- Cardiovascular pharmacology
- Drugs used in haemopoietic system
- IV fluids and Oral Rehydration Solutions
- Parenteral nutrition
- Systemic anti-cancer therapy
- Dermatopharmacology
- Gastrointestinal tract
- Endocrine pharmacology
- Neuropharmacology
- Anti-inflammatory drugs and drugs acting on immune system
- Applied pharmacology
- Systemic antidotes and chelating agents

## Recommended books\*& Journals

- Clinical Pharmacology- P.N.Bennett, M.J. Brown, P. Sharma, Churchii Livingstone, London
- Oxford Textbook of Clinical Pharmacology& Drug Therapy D. Grahame Smith, J. Aronson, Oxford University Press
- Rang & Dale's Pharmacology H.P. Rang, J. M. Ritter. R.J. Flower, G. Henderson, Churchii Livingstone, London
- Essentials of Medical Pharmacology K D Tripathy, Jaypee Brothers Medical Publishers
- British National Formulary- Joint Formulary Committee, Pharmaceutical Press, British Medical Association & Royal Pharmaceutical Society
- Medical Pharmacology at a Glance M.J. Neal, Wiley-Blackwell
- Australian Prescriber NPS Medicinewise
- Sri Lanka Prescriber Department of Pharmacology, Faculty of Medicine, University of Colombo

## Other recommended learning materials

- Self- learning packages on OSCE available in Computer Aided Laboratory
- Video on Inhalers and Inhaler devices produced by Department of Pharmacology

<sup>\*</sup>Latest edition is always recommended for books given above

# CHAPTER 14 DEPARTMENT OF MEDICINE

#### **Academic Staff**

#### **Professors**

Senior Prof. S. Lekamwasam - MBBS (Perad.), MD (Col.), FRCP (Lond.), FCCP, PhD (Erasmus

MC, Netherlands)

Prof.T.P. Weeerarathna - MBBS (Ruhuna), MD (Col.) FCCP, FACP

Prof. K.D. Pathirana - MBBS (Perad), MD (Col.), MRCP (UK), FCCP

Prof. C.K. Bodhinayake - MBBS (Ruhuna), MD (Col.), MRCP (UK)

#### **Senior Lecturers**

Dr. H.M.M. Herath - MBBS (Ruhuna), MD (Col.), MRCP (Lond), MRACP

Dr. A.S. Dissanayaka - MBBS, MD (Col.), MRCP (UK)

Dr. N.J.Dahanayake - MBBS (Ruhuna), MD (Col.)

# **Probationary Lecturer**

Dr. C.L. Fonseka - MBBS (Ruhuna)

# **ACADEMIC PROGRAMME**

Teacing programme in Medicine includes clinical training, ward classes, lectures, clinical demonstrations and tutorials. The objectives of Introductory, First, Second & Professorial appointments are given in the Department website.

Academic Activity	Duration	Teaching/Learning Methods	Term
3 <sup>rd</sup> Year			 I
Introductory appointment	2 weeks	Ward teaching&	
1 <sup>st</sup> Appointment in Medicine	8 weeks	documents description descrip	
Short Appointments Dermatology Neurology	2 weeks 2 weeks 2 weeks		
Rheumatology STD	2 weeks	 	I I ath ath I
Pulmonology	2 weeks	Ward teaching & lectures	6 <sup>th</sup> – 8 <sup>th</sup>
Cardiology Clinical Pathology	2 weeks 2 weeks	Case based self- learning and	
Skills lab – Practicals	2 weeks	Discussion	i .
Introductory Lectures	2 hrs.	 	
4 <sup>th</sup> Year			'
2 <sup>nd</sup> Appointment in Medicine	8 weeks	Ward teaching, case based self- learning and discussion	
Lectures Cardiology 04 Renal 03 Dermatology 02	, , , , , , , , , , , , , , , , , , ,	 	9 <sup>th</sup> – 11 <sup>th</sup>

Endocrinology 04 Gastroenterology 03 Pulmonology 04 Rheumatology 03 Tropical Medicine 02 Geriatrics 01	26 hrs.	Lectures	
5 <sup>th</sup> <b>Year</b> Professorial Appointment	8 weeks	Ward teaching, case based self- learning and discussion	
Ward Classes	6hrs./week (8weeks)48hrs.	Case based self learning& discussion	
Lectures Cardiology 08 Renal 05			12 <sup>th</sup> – 14 <sup>th</sup>
Dermatology 04 Endocrinology 05	65 hrs.	Lectures-65	! ! ! !
Gastroenterology 03 Pulmonology 06 Neurology 10		 	
Haematology 07 Rheumatology 03		 	! ! ! ! ! !
Tropical Medicine 02 Geriatrics 02		 	
CLD* 10  * Clinical lecture demonstrations	i I L	; ; L	i i !

# **Recommended textbooks**

- Clinical Medicine by Kumar & Clark
- Davidson's Principles and Practice of Medicine

- Hutchison's Clinical Methods
- Clinical Examination by John Macleod

# **DEPARTMENT OF OBSTETRICS & GYNAECOLOGY**

# **Academic Staff**

#### **Senior Lecturers**

Dr. M.D.C.S. Kularatna - MBBS (Ruhuna), MS O/G (Col.), FSLCOG

Dr. J.A.P. Dhammika - MBBS (Ruhuna), MS O/G (Col.), MRCOG (Gt. Brit.)

Dr. K.A.Gunarathne - MBBS (Ruhuna), MS O/G (Col.)

Dr. M.F.M. Rameez - MBBS (Ruhuna), MD O/G (Col.),MRCOG (Gt. Brit.)
Dr. D.L.W. Dasanayaka - MBBS (Ruhuna), MD O/G (Col.), MRCOG (Gt.Brit.)

Dr. M.A.G. Iresha - MBBS (Ruhuna), MD O/G (Col.), MRCOG (Gt. Brit)

# Objectives of the Training Programme in Obstetrics & Gynaecology

- 1. Introduce the student to women's health care.
- 2. Build upon previous undergraduate training in pre and para clinical years.
- 3. Train the student to counsel and manage all aspects of normal pregnancy, labour, delivery and puerperium without any further resident training.
- 4. Train the student to counsel and manage common gynaecological problems without further resident training.

<sup>\*</sup> Latest edition is always recommended for books given above.

- 5. Train the student to manage common obstetric &gynaecological emergencies without further resident training.
- 6. Train the student in the recognition of common abnormalities of pregnancy, labour, delivery and puerperium and to understand the principles of management of such abnormalities.
- 7. Train the student in the principles of early diagnosis of gynaecological malignancies and other important gynaecological problems.
- 8. Train the student to function as an intern house officer in obstetrics &gynaecology when he/she graduates.
- 9. Train the student who does not have the opportunity to undergo an internship in obstetrics &gynaecology to function as a DMO/MOIC/MOH in the periphery later on.
- 10. Encourage students to broaden their knowledge by further reading & research.

#### Students are expected to acquire

- critical clinical skills
- core knowledge & skills
- basic clinical skills

(Please refer the webpage of the Department of Obstetrics & Gynaecology – go to <a href="www.medi.ruh.ac.lk">www.medi.ruh.ac.lk</a> and look under departments for details on above items.)

Students are expected to maintain a Log Book on certain compulsory tasks which they are expected to carry out under supervision (*Please refer the webpage of the Department of Obstetrics &Gynaecology – go to www.medi.ruh.ac.lk* and look under departments)

#### Training & Evaluation Programme in Obstetrics & Gynaecology

- 1. A total number of 7.5 hrs of introductory lectures on basics, and 90 hrs of routine lectures/ interactive sessions on selected important topics on core knowledge
- 2. BASIC CLINICAL SKILLS to be taught during the introductory appointment of one / two weeks in the Professorial Unit.

- 3. Four week 1<sup>st</sup> appointment under the supervision of Consultant gynecologist & obstetrician where the above BASIC CLINICAL SKILLS are practiced and experience obtained in CRITICAL CLINICAL SKILLS.
- 4. A formative assessment, whenever possible, by Consultant gynaecologist & obstetrician at the end of the 1<sup>st</sup> appointment. This will include a clinical examination and/or an oral examination. Only a grade will be given.
- 5. Four week 2<sup>nd</sup> appointment with a Consultant gynaecologist & obstetrician as before and acquire CORE KNOWLEDGE AND SKILLS and start maintaining a log book.
- 6. Objective Structured Clinical Examination (OSCE: 08 stations of 06 mins. duration each) on CRITICALCLINICAL SKILLS, and assessment of the log book, at the beginning of the Professorial appointment.

## (10% of Final MBBS Marks)

- 7. Eight weeks Professorial appointment during which student
  - a) acquire /improve CKS
  - b) complete the Log Book of procedures carried out
  - c) maintain a diary of important cases studied
- 8. End appointment assessment (OSCE: 10 stations of 06 mins. duration each)

## **Lectures - Introductory**

1.	Learning objectives and the training program in Obstetrics and Gynaecology	( 1 ½ hrs)
2.	How to interview and examine an obstetric patient, and present a case	( 1 ½ hrs)
3.	How to interview and examine a gynae patient, and present a case	(1 ½ hrs)
4.	Mechanisms of Labour	( 1 ½ hrs)
5.	Basic concepts of diagnosis and assessment of labour and the use of the partogram	( 1 ½ hrs)
6.	Obstetrics &Gynaecology in the community	(1 hr)

#### **Lectures - Obstetrics**

- 1. Medical Ethics & Code of conduct for medical officers
- 2. Reproductive and sexual health rights & The Sustainable Development Goals.
- 3. Physiological changes in pregnancy. (3 hrs)
- 4. Pre conceptional counseling

5.	b)	diagnosis & management of no risk factors diagnosis & management of m		et)
6.	Diagnosis and Managerme			
7.	Diagnosis and Managemer			
8.		ng & detection of high risk fetus		
	b) Normal & Abnormal Ca	rdiotocograph (CTG)		( 2 hrs)
9.	Induction & Augmentation	of labour		
10.	Management of the third st	age & its complications		( 2 hrs)
	primary post partur	mhaemorrhage (PPH)		
	retained placenta			
	uterine inversion			
	post partum collap			
11.		nanagement of obstetric emerge	encies	( 2hrs)
12.	Management of the puerpo			
13.		<ul> <li>Gestational hypertension/ Pre</li> </ul>	e eclampsia / eclampsia	( 2 hrs)
14.	Antepartum haemorrhage.	(55011) 5		
15.		branes (PROM), Preterm pre la	abour rupture of membranes	(01)
4.0	(PPROM) ⪯ termlabor			( 2 hrs)
16.		+ anaemia complicating pregna	ancy.	
17.	Heart Disease complicating			
18. 19.		petes Mellitus in Pregnancy		
19. 20.		ases complicating pregnancy r gestational age fetus & fetal gr	rowth restriction	
20. 21.	Caesarean Sections &post		TOWITTESTICION	
22.	Causes & management of			
23.	Multiple pregnancy & breed			
24.	Viral infections & sexual tra			
25.	Drugs in pregnancy & lacta			
26.		& miscellaneous conditions.		
27.		e multipara, teenage gravida.		
28.	Safe motherhood.	a manapana, asamaga ga maan		
29.	Reduction of maternal mor	tality		
30.		e Based Medicine & The WHO	Reproductive Health Library 56	

#### **Lectures - Gynaecology**

- 1. Early pregnancy complications I (Early pregnancy assessment unit + ectopic gestations). (2hrs)
- 2. Miscarriage and abortion
- 3. Gestational trophoblastic disease
- 4. Unsafe abortion & Septic abortion (2hrs)
- 5. Vaginal discharges and pruritus vulvae.
- 6. Physiology of normal menstrual cycle

hypothalamic - pituitary - ovarian, endometrial axis & hormones

- 7. Common menstrual disorders (dysmenorrhoea/ premenstrual syndrome)
- 8. Abnormal uterine bleeding & its management
- 9. Physiology of Micturition and female urinary incontinence.
- 10. Pelvic infection acute and chronic PID
- 11. Fibroleiomata and other common gynaecological conditions.
- 12. Menopause& utero vaginal prolapse hormone replacement therapy.
  - Subfertility including endometriosis.
- 14. Early detection of gynaecological malignancies.
- 15. Carcinoma of the uterus cervix

endometrium

- 16. Ovarian tumours- benign and malignant
- 17. Hormonal contraception.
- 18. Other forms of contraceptives and sterilization.
- 19. Urogynaecological problems and assessment & investigation of women with urinary incontinence
- 20. Development of female genital tract & its abnormalities & intersex.
- 21. Radiotherapy & chemotherapy

#### General

- 1. Discussion of student presentations on WHO- RHL assignments (7hrs)
- 2. Revision / Examination techniques (Final MBBS). (4hrs)

#### Recommended textbooks

#### **Basic Textbooks**

(2hrs)

- Obstetrics Illustrated by K P Hanretty
- Gynaecology Illustrated by David McKay
- Obstetrics by Ten Teachers by Stuart Campbell, Christoph Lees
- Gynaecology by Ten Teachers by D.Scott Jones et al
- Oxford Handbook of Obstetrics &Gynaecology by S. Arulkumaran, IM Symonds A Fowlie
- Basic Science in Obstetrics &Gynaecology by Michael de Swiet& Geoffrey Chamberlain

## **Basic Reference**

■ WHO Reproductive Health Library (available at <a href="https://www.who.int/rhl">www.who.int/rhl</a>)

<sup>\*</sup> Latest edition is always recommended for books given above

## DEPARTMENT OF PAEDIATRICS

#### **Academic Staff**

#### **Professor**

Senior Prof. U.K. Jayantha - MBBS(Ruhuna), MD (Paed. – Col.), DCH (Col.) FSLCPaed

Senior Prof. T.S.D. Amarasena - MBBS (Ruhuna), MD (Paed.- Col.), DCH (Col.), DCH(Sydney), FSLCPaed

Prof. I.V. Devasiri - MBBS(Ruhuna), MD (Paed. – Col.), DCH(Col.)

#### **Senior Lecturers**

Dr. T.P.J. Gunawardena - MBBS(Ruhuna), MD (Paed. – Col.), DCH (Col.)

Dr. N.D.Liyanarachchi - MBBS(Ruhuna), MD (Paed. – Col.), DCH (Col.), MRCP(UK)

Dr. P.P.Jayawardena - MBBS(Ruhuna), MD (Paed. – Col.), DCH (Col.)
Dr. M.H.A.D. De Silva - MBBS(Ruhuna), MD (Paed. – Col.), DCH (Col.)

## **Probationary Lecturer**

Dr. K.A.C.P.Imalke - MBBS (Colombo)

#### **ACADEMIC PROGRAMME**

The teaching programme in Paediatrics includes clinical training, ward classes, lectures, clinical demonstrations and tutorials.

Academic activity	Duration	Teaching / Learning method	Term
2 <sup>nd</sup> year (After 2 <sup>nd</sup> MBBS examination) Introductory lectures on Paediatrics Introductory clinical appointment in Paediatrics	02 hrs 01 weeks (afternoon session)	Lectures Ward teaching	
1 <sup>st</sup> year 1 <sup>st</sup> appointment in Paediatrics Skills lab teaching (during short appointment)	04 weeks 02 days	Ward teaching	
4 <sup>th</sup> year 2 <sup>nd</sup> appointment in Paediatrics Skills lab teaching	04 weeks 02 weeks	Ward teaching Lectures & demonstrations	
Lectures Infections - 07 Immunization - 01 Nutrition - 06 Neonatology - 12 Endocrine – 04	30 hrs	Lectures	09 <sup>th</sup> – 11 <sup>th</sup>
5 <sup>th</sup> Year Professorial appointment Ward classes Active learning	8 weeks 16 hrs 16 hrs	Ward teaching Ward teaching Interactive sessions with students	12 <sup>th</sup> – 14 <sup>th</sup>
Lectures Renal 05 Respiratory 05	60 hrs	! ! !	

Cardiovascular 06 Central nervous system 06 Haematology 05 Rheumatic fever and Juvenile Idiopathic Arthritis Growth disorders / short stature02 GI System 04 Malignancies 03 Genetic disorders/In born errors 02 Miscellaneous Child abuse, Poisoning, Paediatric surgical problems 05 Immune deficiency Revision and clinical lecture **Demonstrations** 

T.Lissauer, G. Clayden

- Essential Paediatrics David Hull
- Hospital Paediatrics David Hull
- Community Paediatrics David Hull
- Children's Medicine and Surgery Forrester Cockburn
- Forfar&Arneils Textbook of Paediatrics
- Nelson's Textbook of Paediatrics
- Manual of Neonatal Intensive care NRC Roberton
- Paediatric practice in developing countries E.J.Ebrahm
- The normal child Illingworth
- Common symptoms & signs of diseases of children Illingworth
- Paediatric cardiology Scott
- Manual of neonatal care John P Cloherty

#### Recommended textbooks

• The Illustrated textbook of paediatrics –

\* Latest edition is always recommended for books given above.

# **CHAPTER 17**

# **DEPARTMENT OF PSYCHIATRY**

#### **Academic Staff**

Professor

Professor G.H.Chandanie - MBBS(Ruhuna), MD Psych.(Col)

**Senior Lecturers** 

Dr.G.D.Punchihewa - MBBS(Ruhuna), MD Psych.(Col)

Dr.S.A.C.Senadheera - BSc(St.Petersburg),MSc (St.Petersburg),PhD(Ruhuna)

Dr.K.M.S.A.K. Jayasekara - MBBS(Ruhuna), MD Psych.(Col)

Dr.I.H.Rajapakse - MBBS(SJP), MD Psych.(Col),PhD(Durham)

#### **ACADEMIC PROGRAMME**

Academic activity	Duration	Teaching/Learning methods	Term
2 <sup>nd</sup> year	2hrs.	Lectures	5th
Pre-clinical lectures			
3 <sup>rd</sup> year	6hrs	Lectures	6 <sup>th</sup>
Introductory clinical lectures			
3 <sup>rd</sup> /4 <sup>th</sup> year	2 weeks	Clerkship	6 <sup>th</sup> -8 <sup>th</sup>
Clinical appointment		Case discussions	
		Teaching ward rounds	
Lectures	23hrs.	Lectures	9 <sup>th</sup> -11 <sup>th</sup>

5 <sup>th</sup> year	8 weeks	Teaching ward rounds	12 <sup>th</sup> 14 <sup>th</sup>
Professorial appointment		Case discussions	
		Assignments/presentations	
Lectures		Role play	
	9hrs	Lectures	
Tutorials	4hrs	tutorials	

#### Recommended textbooks

- 1. Oxford core text inPsychiatry 3<sup>rd</sup> ed. Oxford University Press.Gelder M, Mayou R, Geddes J, (2005)
- 2. New Oxford Textbook of Psychiatry. Vol 1 and 2, Oxford University Press. Gelder M.G, Lopez-Ibor J.J, Andreasen N.C, (2000)
- 3. Textbook of Psychiatry. 2<sup>nd</sup> ed. Churchill Livingstone Puri B.K., Laking P.J, Treasaden L.H, (2002).
- 4. Handbook of Clinical Psychiatry. 1st Edition. Varuni De Silve&RaveenHanwella
- 5. Where There Is No Psychiatrist. The Royal College of Psychiatrists. Patel V, (2003)

# **DEPARTMENT OF SURGERY**

# **Academic Staff**

**Professor** 

Prof. R.W. Seneviratne - MBBS (Ruhuna), MS (Col.), FRCS (Eng), MSc (Birmingham)

**Senior Lecturers** 

Dr. M.M.A.J. Kumara - MBBS (Perad.), MS (Col.), FRCS (Eng.)

Dr. J.P.M. Kumarasinghe - MBBS (Ruhuna), MS (Col.)

Dr. R.P. Abeywickrama - MBBS (Col.), MS (Col.), MRCS (Eng)

#### **ACADEMIC PROGRAMME**

Academic Activity	Duration	Teaching/ Learning Method	Term
<sup>1</sup> 2 <sup>nd</sup> Year	1	i	:
Introductory Lectures	4 - 8 weeks	Lectures	6 <sup>th</sup>
Introductory Clinical Appointment	1 – 2 weeks	Clerkship/ward teaching	
3rd Year	!	!	   
1st Appointment Surgery	8 weeks	Clerkship/ward teaching	1
Orthopaedic Appointment	4 weeks	1	
Short Appointments	2 weeks	Clerkship/ward teaching	7 <sup>th</sup> – 11 <sup>th</sup>
<sup>¹</sup> Ophthalmology	each	1	l I
<sup>¦</sup> Otolaryngology	1 1	1	! !
Anaesthesiology	[ 	1	! !
Oncology	1	! !	
Radiology	  -	1	1

4th Year	r		
2 <sup>nd</sup> Appointment Surgery	l l O wooko	 	9 <sup>th</sup> 11 <sup>th</sup>
2 Appointment Surgery	8 weeks	 	9 – 11
└ 5th Year	 	 	
LECTURES	¦ 35hrs.	Lectures	12 <sup>th</sup> –14 <sup>th</sup>
General Surgery	I I	Case discussions	
Gastrointestinal Srgery	1 1	Clerkship/clinc&ward	! !
¦ Genito-urinary Surgery	I I	teaching	] 
Orthopaedic Surgery Otolaryngology	1 1	Case discussions	I I
Ophthalmology	I		
Anaesthesiology	!		i 1
Neurosurgery	!		İ
Cardio-thoracic Surgery	! !		į
PaediatricSurgery	1 [		 
Tutorial Classes	I I		! !
Professorial Appointments	30 hrs.		
Ward Classes	8 Weeks	 	
Clinical teaching in wards & in clinics	¦ 32hrs.		
1	200 hrs	, L	  J

## **Recommended textbooks**

- Short practice of surgery (21st Ed.) Bailey & Love
- An introduction to symptoms & signs of surgical diseases Norman Browse
- Demonstration of physical signs in clinical surgery Hamilton Bailey
- Principles & practice of surgery Scott
- Aids to clinical surgery Forrest, Carter, Macleod
- Lecture notes in general surgery Harold Ellis
- Outline of fractures Adams
- Outline of Orthopaedics Adams

<sup>\*</sup> Latest edition is always recommended for books given above.

# **Department of Anaesthesiology**

## **Academic staff**

#### Senior lecture

Dr. U I Hapuarachchi. MBBS(Ruh), MD(Anaes- Col), FRCA(UK), FCARCSI(Ire)

## **Probationary lecture**

Dr. Chamin Weerasekara. MBBS(Ruh), MD(Anaes- Col)

### Academic programme.

## Objectives.

- Learn the basic principles of pre-operative assessment and optimization of patients prior to surgery
- Provision of intra and post-operative analgesia
- Understand the principles of peri-operative fluid therapy
- Familiarize with different anaesthetic techniques
- Understand the importance of peri-operative monitoring and standard anaesthetic monitoring devices
- Recognize the common post-operative complications and their management
- Understand the concept of intensive care and basic principles of management of critically ill patients
- Develop professional communication skills among colleagues, other hospital staff, patients and their relatives
- Demonstrate respect for privacy and rights of patients at all times
- Work as a team with other health care workers in the operating theatre
- Appreciate the specialty of anaesthesia as a future career

Academic activity	Duration	Teaching/ learning method	Term
3 <sup>rd</sup> Year			
Introductory lectures	4-8 weeks	Lectures (one hour)	07- 08 <sup>th</sup> term
	(one/week)		
4 <sup>th</sup> Year			
Clinical appointment	02 weeks	Clerkship / Operating theatre and intensive care teaching and Hands on skills.	09- 11 <sup>th</sup> term
Clinical skills	08 sessions	Basic Life Support (BLS) and Safe	09- 11 <sup>th</sup> term
	defibrillation- Hands on skills		
<u>5<sup>th</sup> Year</u>			
Discussion classes	10 weeks	Student presentation and discussion	12- 14 <sup>th</sup> term
	(one/week)		
Ward classes	08 weeks	Discussion	12- 14 <sup>th</sup> term
	(one/week)		

# Clinical Learning.

• Pre-operative assessment and optimization of

Fit and healthy patient

Patient with cardiovascular disease – IHD, hypertension

Patient with respiratory disease - URTI, asthma

Patient with endocrine disease – DM, thyroid disease

- Drugs used as premedication
- Common anaesthetic techniques GA vs regional anaesthesia
- Commonly used drugs in general and regional anaesthesia
- Monitoring of patients intra and post-operatively CVS, RS, conscious level
- Fluid and electrolyte balance
- Assessment of blood loss and transfusion of blood and blood products
- Post-operative pain relief drugs and techniques

#### Clinical skills

Management of airway in unconscious patient

Airway maneuvers

Bag and mask ventilation

Insertion of an oro-pharyngeal airway, LMA

Endotracheal intubation

- Perform intravenous cannulation and preparation of infusions, blood transfusions
- Observe and perform spinal taps
- Observe CVP cannulation, epidural catheterization
- Use of ECG monitor, pulse oximeter, capnography
- Use of defibrillator safely and appropriately
- · Maintenance of anaesthetic monitoring charts
- Writing post-operative instructions

#### Assessment.

OSCE- 10 stations (conducted at the end of the Final year Surgery appointment)

#### Recommended books & Journals.

- 1. Smith & Aitkenhead's Textbook of Anaesthesia
- 2. Handbook of Anaesthesia
- 3. Oxford Handbook of Anaesthesia
- 4. Morgan & Mikhail's Clinical Anaesthesiology
- 5. Oxford Handbook of Critical Care
- 6. BJA Education Journal

Latest edition is always recommended for books/ journals given above.

Department of Anaesthesiology was established in late 2016 and the above programme was within the Academic programme of the Department of Surgery previously.

# UNITS RECOGNIZED BY THE UGC

## FILARIASIS RESEARCH, TRAINING AND SERVICE UNIT

Academic Staff

**Head / Senior Lecturer** 

Dr. T.C. Yahathugoda - MBBS (Ruhuna), PhD (Ruhuna)

**Professor of Parasitology** 

Senior ProfessorMirani V. Weerasooriya - MBBS (Sri Lanka), DMSc. (Kyushu), FNASSL

Lecturers

Ms. Upeksha Ratnapala - BSc. Molecular Biology (Hon. Perad)

Dr. Janaka Ruben - MBBS (Ruhuna)

The unit was established in August 2005 with the approval of the University Grants Commission in recognition of continuous field and laboratory research on lymphatic filariasis (LF) carried out by the Department of Parasitology for a period of seventeen years headed by Professor Mirani V. Weerasooriya and Dr. T. ChannaYahathugoda. This is the only research unit in LF established in the university system in Sri Lanka and the first UGC approved research unit established in the University of Ruhuna.

#### Functions of the unit

#### (a) Research:

The research activities during the last seventeen years included epidemiology, vector biology and transmission, diagnosis including development of newer diagnostic techniques and treatment trials using new drug regimens and control studies including vector control.

Since the initiation of the national Programme for the Elimination of Lymphatic Filariasis (PELF) the unit has carried out research on delimitation of endemic areas by Rapid Assessment Procedures (RAP) using standard questionnaires and preparing GIS maps and confirming the results with recently developed urine ELISA, evaluation, monitoring of Mass Drug Administration Programmes (MDAs) with emphasis on health education in relation to LF and studies on lymphoedema management using a Home Based Care Programme.Implementing multi-country drug trials to improve filarial lymphoedema.

Professor Eisaku Kimura and his team from the Aichi Medical University, Japan have collaborated with the unit since 1995.

Professor Gary Weil and his team from Washington University St. Louis, USA have collaborated with the unit since 2014.

- **(b) Training**: undergraduates, postgraduates and health personnel.
- **(c) Service**: The unit provides a diagnostic service to the hospitals in the south. A filariasis clinic is also conducted with major emphasis on Home Based Care Programme on lymphoedema management.
- (d) Electives: Laboratory and field appointments for local and foreign graduate students.

#### **NUCLEAR MEDICINE UNIT (NMU)**

#### **Academic Staff**

#### **Head&Senior Lecturer**

Dr. M. Hettiarachchi - MBBS (Ruhuna), PhD (Ruhuna)

#### **Functions of the Unit**

a) Training

Undergraduates in medical Laboratory Sciences and Nursing degree program of Allied Health Sciences, post-graduates in Endocrinology.

b) Research

The staff of the NMU is involved in clinical research using stable isotopic technology, immunoassays (ELISA & RIA) in the field of endocrinology, nutrition and oncology.

c) Service function

The NMU is the only public sector immunodiagnostic service provider in the Southern Province. It has been providing this service to the hospitals not only in South but also to entire country on different hormones, tumour& nutritional markers. The national program on 'Screening Newborns for Congenital Hypothyroidism' is the initiative of the unit. The radioactive iodine (RAI) therapy for thyrotoxicosis and thyroid malignancies was also established in 2011.

## d) Electives

Laboratory appointments for local and foreign post-MD trainees and Medical Laboratory Sciences undergraduates.

#### Recommended textbooks

- Comprehensive Clinical Endocrinology by Michael Besser& Michael Thomer
- Radionuclides in Biomedical Science: An introduction by ChandraniLiyanage&ManjulaHettiarachchi

## MEDICAL EDUCATION AND STAFF DEVELOPMENT UNIT (ME& SDU)

#### **Academic Staff**

#### **Head& Senior Lecturer**

Dr. A.J.P.M. Jayawardena - MBBS (Ruhuna), DFM (Colombo), MSc (Edinburgh)

The Medical Education and Staff Development Unit (ME&SDU) of the Faculty of Medicine, Galle was established in December 2000.

The goal of the unit is to enable and empower members of the Staff of the Faculty of Medicine, in enhancing their knowledge, skills and attitudes in areas of teaching and evaluation, research and management, so that they can contribute positively and meaningfully, towards the development of the Faculty, University of Ruhuna and the nation and also to provide consultancy & advisory services in educational technology. In seeking to address its mission the ME & SDU has sought many ways of enhancing the knowledge base of its staff through various training programs.

<sup>\*</sup> Latest edition is always recommended for books given above.

## **CHAPTER 21**

## LEARNING RESOURCES

There are five lecture halls with seating capacity ranging from 160 to 385.. All the lecture halls are fitted with multimedia projectors.

Classrooms for small group discussions and tutorials are found in many departments. They are of moderate size with capacity to accommodate up to 30 to 50 students.. All classrooms are provided with whiteboards and overhead projectors. Ample space is available in different locations for self-learning and resting. Many laboratories are available for for student teaching and research.

## The Library

The Faculty library has a floor area of 1200 square metres and a seating capacity for 250, with sections for periodicals, and rooms for cataloging, local publications and binding. In addition to students and staff, the library caters to medical officers and postgraduate trainees attached to Teaching Hospitals, Karapitiya and Mahamodera and extended faculty staff. Other facilities such as internet facilities are also available.

The medical library is housed on the first and second floors of the Administration Building. The library contains approximately 24,000 books in the two sections of reference and lending. The majority of textbooks are in multiple copies.

#### **Library hours**

 Weekdays
 8.00 a.m.- 8.00 p.m.

 Saturdays
 8.30 a.m.- 6.00 p.m.

 Sundays
 8.30 a.m.- 6.00 p.m.

Public holidays - Closed

## Borrowing of books by students

#### Registrations

Students who wish to use the library are required to register themselves at the library. In order to borrow books from the library, students have to produce the student identity card issued by the University of Ruhuna.

#### Period of Loan

The books are divided into four categories.

1.	Permanent Reference	These books are labeled with a red R on the spine of the book	and	are	not
perm	nitted to be borrowed from the libra	ary.			

2.	Staff Permanent Reference	These books are labeled with a red S and red R on the spine of the book. These books can be borrowed by the academic staff members of the Faculty only.
3.	Overnight Reference	These books are labeled with a blue R on its spine.
4. reader	Lending books s to borrow on loan basis	All other books that do not come under any of the above categories are available for
		for one week. They can be renewed using the computerized library service

#### Issue of books to students

Lending books may be borrowed and returned during the normal library hours. The books borrowed must be returned on or before completion of one week from the date of borrowing. If a student wishes to keep the book for a longer period, he or she can log on to the library webpage (<a href="www.lib.ruh.ac.lk">www.lib.ruh.ac.lk</a>) and extend the period on-line. Students must obtain their password from the library for this purpose.

Overnight reference books may be borrowed two hours before the closing of the library. They must be returned not later than 1.00 p.m. on the following library opening day.

Book must be handed over at the library counter together with the Student Identity Card for identification purpose and for the bar code. Student can log on to the webpage and check the status (e.g. return date etc).

**Longterm lending facility to students:**Two types of services are provided under this facility. a) – Provision of books for selected new entrants on a long-term basis

#### Issuing of books and periodicals to the staff of the faculty

Books are issued according to the category of staff and type of materials.

Category of the staff	Type & duration of library loan
Permanent academic staff	Three books for one month
Registrars Assistant Lecturers Demonstrators Scientific ssistants	Two books for one month
Head of a Department PGIM Trainees, Medical officers, Hospital Consultants, Visiting Lecturers	10 books for one year as Departmental issues  Reference facility only

#### **Periodicals**

The current issues of periodicals are displayed on racks and the bound volumes of the back issues of periodicals are in the stacks.

## Fines for overdue lending books

A fine of Rs. 5/= is charged per day for a book returned after the due date. Only library working days will be considered.

## Fines for overdue overnight reference books

A fine of Rs. 2/= is charged per hour for a book returned after the due time. Only library working hours will be considered.

#### Damage to and loss of library books

No books or other material in the library may be marked by the users. Borrowers will be held responsible for the condition of books returned by them. They should, therefore, inform the damages, if any, at the time of borrowing. In the absence of such a report, the book issued will be considered a undamaged copy. If a book is damaged or lost, the borrower should replace it or will be liable to pay twice the current value of the book and Rs.5/= as department charges and binding charge if the lost or damaged book is already bound by the library.

## Library discipline

- a) Silence should be observed in all sections of the library
- b) Smoking and consumption of food or drink are forbidden in the library
- c) Brief or attached-cases, files, umbrellas, raincoats etc. should be left at the entrance and not brought into the library
- d) Ink bottles are not allowed to be taken in to the library
- e) Students are particularly requested to conduct themselves with decorum and consideration for others, and refrain from any action that could embarrass or disturb other users of the library eg: placing feet on the tables and arms of chairs etc.
- f) Readers must always carry their identification cards or record books and produce them for inspection, if requested by the library staff. Library facilities may be refused to readers who do not comply with these rules.
- g) Students should not bring their own textbooks into the library.
- h) The librarian will report to the Dean aboutstudents whose conduct in the library is disorderly, and pending the Dean's decision, such t students will be excluded from further use of the library.

Any other information regarding the library may be obtained from the library staff.

The Computer Aided Learning laboratory (CAL lab) which is adjoining the library is equipped with nearly 60 computers and about 40 of these computers are networked.

# **CHAPTER 22**

## SPORTS AND RECREATION

The Faculty has a playground, gymnasium, cricket nets, and an indoor badminton court. The Faculty provides facilities for netball, badminton, table tennis, carom, draughts, chess, weight training and strength development. Particulars of other services offered to students can be obtained from the Senior Assistant Registrar (Student Welfare Services) at Matara.

Students are encouraged to participate in these sports activities and represent the Faculty in inter-faculty and inter-university games. Students excel in sports will be awarded University Colours and they can apply for the Vice Chancellor's awards, Vice Chancellor's list, Dean's awards and Dean's list.

## **CHAPTER 23**

## **EXAMINATIONS**

# Scheme of Examination and Allocation of Marks for 2<sup>nd</sup> Examination for Medical Degrees (2<sup>nd</sup> MBBS Examination) – held at the end of 5<sup>th</sup>term

#### **ANATOMY**

## Theory

a.Paper I:48 MCQ & 12 SBR- Time allocated 180 mins.

b.Paper II: 5 Essay type questions - Time allocated 180 mins.

#### **Practical**

a. Gross Anatomy & Neuroanatomy Practical – 40 Spot Questions 30 mins.

b.Histology – 20 Spot Questions15mins.

c.Viva voce – 10 mins.

#### First attempt

Theory		Practical	
Paper I	40%	Gross Anatomy &Neuroanatomy40%	
Paper II	40%	Histology	20%
Theory Assessment tests	20%	Viva voce	20%
•		Practical Assessment Test	20%
	100%	100%	
	=====		====

## Second and subsequent attempts

	Theory		Practical	
Paper I Paper II	·	50% 50%	Gross Anatomy &Neuroanatomy40% Histology Viva voce	30% 30%
		4000/		4000/
		100% ====		100% ====

The pass mark for Anatomy is 50%. The candidate will, in addition, have to obtain a minimum of 40% in theory.

A candidate may be referred in Anatomy if he/she has passed Physiology and/or Biochemistry and minimum of 25% in Anatomy.

A candidate will be awarded a distinction in Anatomy if he/she obtained an aggregate mark of 70% or more in Anatomy.

## **BIOCHEMISTRY**

#### **Continuous Assessments**

Term	i ! !	Marks	;	Marks
	:		12 MCQs	60
1 <sup>st</sup>	Part 1	75	03 single/best response questions	15
 	Part II	25	Two structured essay questions	25
	Part 1	75	12 MRQs	60
2 <sup>nd</sup>	! 	! [	03 single/best response questions	15
 	Part II	25	Two structured essay questions	25
i — — — — — - I I	1 ! !	 !	12 MCQs	60
3 <sup>rd</sup>	Part 1	75	03 single/best response questions	15
: 	Part II	25	Two structured essay questions	25
	Part 1	75	12 MCQs	60
4 <sup>th</sup>	i ! !	i I I	03 single/ best response questions	15
i I I	Part II	25	10 OSPE	25
Total of assessm	the ent marks	400		400

The total of 400 marks at the end of four continuous assessments will be converted to 20 marks of the 2<sup>nd</sup>MBBS examination.

# End of course assessment - 2<sup>ND</sup> MBBS EXAMINATION - At the end of 5<sup>th</sup> Term

## First attempt

		Marks
Paper 1	48 MCQs	20
25 marks (3hrs)	12 single/best response questions	5
Paper 11(3hrs)	Five essay questions(Time - 3 hrs.)	25
OSPE (Objective structured practical examination)	OSPE – 20 questions	20
Viva voce examination		10
Continuous Assessments	;; ; ;	20
Total		100

# Second and subsequent attempts

Paper 1	48 MCQs	28 marks
35 marks (Time - 3 hrs)	12 single/best response questions	07 marks
Paper 11(Time - 3 hrs)	Five essay questions	35 marks
OSPE (Objective structured practical examination)	20 questions	20 marks
Viva voce examination		10 marks
	Total	100 marks

The pass mark for Biochemistry is 50%. The candidate will, in addition, have to obtain a minimum of 40% in theory. In order to obtain a distinction a candidate must obtain a minimum aggregate mark of 70%.

#### **PHYSIOLOGY**

#### **Continuous Assessments**

These are conducted at the end of each term for the first four terms. The last week of each term is reserved as 'assessment week' where assessments of all three departments take place. No formal teaching is conducted during that week. Each of the 4 end-of-term (terms 1 to 4) assessments takes the following form;

	100
10 Objective structured practical examination (OSPE) questions	- 25
15 Best Response Questions	- 45
10 Multiple Choice Questions (true/false type)	- 30

Duration of the in-course assessment: MCQ paper for each of the first 4 terms is 75 min. and OSPE is 20 mins.

At the end of the **Neuroscience Course** a joint assessment with the Department of Anatomy will be held. It consists of 10 MCQs in Neurophysiologyand 10 MCQs in Neurophysiology component will occupy 30 minutes of the examination and carry 50 marks. - 50 marks

The short analytical essay will be evaluated by an academic staff member of the department other than the supervisor. Critical thinking, ability to gather information from medical literature and to analyze them, essay construction and presentation will be assessed. Short Analytical Essay

- 50 marks

The marks from the 4 end-of-term assessments (400 marks), 10 MCQs in Neurophysiology (50 marks) and Short Analytical Essay (50 marks), all taken together (a total of 500 marks) will make **30% of the final mark at the 2<sup>nd</sup>MBBS Examination in Physiology.** 

# 2<sup>ND</sup> MBBS EXAMINATION – At the end of 5<sup>th</sup> Term

## First attempt

This will be held at the end of the 5<sup>th</sup>term. Minimum of six weeks' notice will be given for the dates of the examination. Physiology subject of the 2<sup>nd</sup>MBBS examination consists of:

15 Multiple Choice Questions (True/False type)*	-	10 %
30 Best Response Questions*	-	15 %
5 Essay questions (3 hrs.)	-	20 %
20 OSPE questions (40 mins.)	-	15 %
Vivavoce (10 mins.)	-	10 %
In-Course Assessment	-	<u>30 %</u>
		100 %
		=====

<sup>\*</sup>Length of the MCQ paper [15 MCQs (True/False type) + 30 Best Response Questions (BRQs)] will be 2 hrs and 30 minutes.

50% mark is the pass mark for the whole examination in Physiology. Student should obtain a minimum mark of 40% (18 marks) in the "Theory" component (MCQ + Essay) to pass the examination in Physiology. The students who obtain 70% or over in the total mark in Physiology will be awarded a Distinction in Physiology.

Those who are not successful in Physiology at the first attempt will have to re-sit the subject of Physiology at the next scheduled 2<sup>nd</sup>MBBS examination. The in-course assessment mark will not be included in the calculation of the total mark. The 30% mark allocated for the in-course assessment will therefore be allocated among the other components of the examination. Therefore, the allocation of marks for second attempt and thereafter will be as follows.

#### Second and subsequent attempts

		=====
		100 %
Vivavoce (10 mins.)	-	<u>10 %</u>
20 OSPE questions (40 mins.)	-	30 %
5 Essay questions (180 mins.)	-	25 %
30 Best Response Questions	-	20 %
15 Multiple Choice Questions (True/False type)	-	15 %

\*Length of the MCQ paper [15 Multiple Choice Questions (True/False type) + 30 Best Response Questions] will be 2 hours and 30 minutes.

50% mark is the pass mark for the whole examination in Physiology. Student should obtain a minimum mark of 40% (24 marks) in the "Theory" component (MCQ + Essay) to pass the examination in Physiology in the second attempt and thereafter.

Whenever a student first physically sits for the Physiology examination at the 2<sup>nd</sup>MBBS examination, his/her continuous assessment marks will be taken into account for the calculation of the marks for the Physiology paper of the 2<sup>nd</sup>MBBS examination.

# Scheme of Examination and Allocation of Marks for Part I of the 3<sup>rd</sup> Examination for Medical Degrees (3<sup>rd</sup> MBBS – Part I Examination) – held at the end of 8<sup>th</sup> term

#### MICROBIOLOGY

Continuous Assessments (CA I & CA II)

## CA I - At the end of the 6<sup>th</sup> Term of study

20MCQs 85%

[15 MCQs (True/False type) + 5 Best Response Questions (BRQs)]

Gram stain Assessment 15%

100%

10% of the total marks will be taken for the 3<sup>rd</sup>MBBS Part 1 Examination (first attempt only)

# CA II - At the end of the 7<sup>th</sup> Term of study

20MCQs [15 MCQs (True/False type) + 5 Best Response Questions (BRQs)]
10% of the total marks will be taken for the 3<sup>rd</sup>MBBS Part 1 Examination (first attempt only)

====

# 3<sup>rd</sup>MBBS Part I Examination – At the end of 8<sup>th</sup>Term

	First attempt	Second & subsequent attempts
Theory - Paper I - MCQ (15 MCQ and 5 BRQ)	20%	20%
- Paper II – Essay (4 questions)	30%	40%
OSPE (20 stations)	20%	30%
Viva Voce	10%	10%
Continuous Assessment (CA I +CA II)	20%	-
Total Marks	100%	100%

A candidate should have a minimum of 40% for theory (i.e. for paper I and paper II) and 50% of the total mark topass the examination in Microbiology

A candidate will be awarded a distinction in Microbiology if he/she obtained an aggregate mark of 70% or more in Microbiology

#### **PARASITOLOGY**

# 3<sup>rd</sup>MBBS Part I Examination – At the end of 8<sup>th</sup> Term

#### First attempt

a) Theory examination4 Structured Essay Questions - 2hrs

30%

20 MCQs\* - 1hr

[\*15 MCQs (True/False type) + 5 Best Response Questions (BRQs)]

- b) Practical examination will consist of three components
  - Continuous Assessment Term 1 Examination of faeces

10%

20%

2) Continuous Assessment Term 2 -Assessment of Malaria Module 10% 3) OSPE - 30mins. (15 Stations) 20% c) Viva Voce - 8mins. 10% Total 100% ==== Second and subsequent attempts 4 Structured Essay Questions 40% 20 MCQs\* 30% [\*15 MCQs (True/False type) + 5 Best Response Questions (BRQs)] OSPE - 30 mins. 20% 10% Viva Voce - 8 mins. 100% Total

To pass the examination, students should score a minimum of 40% in the theorypaper, and obtain a minimum aggregate of 50%. Scheme of Examination and Allocation of Marks for Part II of the 3<sup>rd</sup> Examination for Medical Degrees (3<sup>rd</sup> MBBS – Part II Examination) – held at the end of 11<sup>th</sup> term

#### **COMMUNITY MEDICINE**

3<sup>rd</sup> MBBS Part II Examination – At the end of 11<sup>th</sup> Term

## First attempt

Theory:

p Paper I (Essay – 5 questions) 20% p Paper II (32 MCQsand 8 BRQs) 25%

• Orals 10%

• Continuous Assessment 15%

•	Research Project	10%
•	Clerkship	10%
•	Community Attachment	10%
	Aggregate	100%

Pass marks - 50% or more of the aggregate with minimum of 45% for theory (Paper I & II)

Distinction - 70% or more of the aggregate with minimum of 60% for theory

## Second and subsequent attempts

At the second and subsequent attempts marks obtained by a candidate for Continuous Assessment, Research Project, Clerkship and Community Attachment are not taken into account and marking scheme is adjusted as follows:

Theory:

	0	Paper I (Essay – 5 questions)	40%
	0	Paper II (MCQ - 32 true/false type + 8 BRQ)	40%
•	Viva vo	oce	20%
		Aggregate	100%

Pass marks - 50% or more of the aggregate with minimum of 45% in theory (Paper I & II)

#### **FORENSIC MEDICINE**

# 3<sup>rd</sup> MBBS Part II Examination – At the end of 11<sup>th</sup> Term

# First attempt

Marks		
End of Clinical Appointment Assessment		10%
Paper 1- FiveStructured Essay Questions (3hrs)	40%	
Paper II - 48 True/False MCQ + 12 BRQ* (3hrs)	20%	
OSPE –Examination with 10 stations(6mins/station)		20%
Viva Voce (10-15 mins)		10%

## Second and subsequent attempts

Paper 1 - Five Structured Essay Questions (3hrs)	40%
Paper II - 48 True/False MCQ + 12 BRQ* (3hrs)	20%
OSPE –same as in 1 <sup>st</sup> attempt	30%
Viva Voce (10-15 mins)	10%

## \*BRQ - Best Response Questions

Minimum of 40% is required in theory (paper 1 and II) and an aggregate of 50% is required to pass examination. Distinction mark is 70% and above, in the first attempt.

#### **PATHOLOGY**

# 3<sup>rd</sup> MBBS Part II Examination – At the end of 11<sup>th</sup> Term

## First attempt

Component	Marks
Theory paper – 2 hrs	40%

6 compulsory Structured Essay Questions (SEQs) are given to assess all areas in pathology-general pathology, tumour pathology, systemic pathology, clinical pathology and hematology in a clinically relevant manner to assess the application of pathology knowledge as a whole.

# MCQ paper - 2hrs

32 MCQs (True/False) and 8 BRQs	20%
Practical examination (20 stations)	15%

Histopathology – 10 stations

Gross specimens and microscopic slides, macroscopic images and microscopic images, histological and cytological diagnosis reports, case/data interpretation type questions will be included.

## Clinical pathology – 10 stations

This takes place as an Objective Structured Practical Examination (OSPE)

Viva voice	10%
Continuous assessment	15%

(16 MCQs (True/False type) and 4 BRQs to check mostly General Pathology and tumor pathology knowledge – to be answered within 60 minutes (10%), OSPE on General Pathology and Tumor pathology – 10 stations (5%)

## Second and subsequent attempts

Theory	40%
MCQ	30%
Practical	20%
Viva voice	10%

#### **PHARMACOLOGY**

## In-course assessments and marks allocation

Composition	1 <sup>st</sup> Assessment (At the beginning of 7 <sup>th</sup> term)	<b>2<sup>nd</sup> Assessment</b> (At the beginning of 10 <sup>th</sup> term)	3 <sup>rd</sup> Assessment  (At the beginning of 11 <sup>th</sup> term)
Single Best Response questions (8)  True / False typequestions (12)	40 marks	30 marks	30 marks
	60 marks	40 marks	40 marks

OSCE (5)		30 marks	30 marks	
Total	100 marks	100 marks	100 marks	

#### 3<sup>rd</sup> MBBS Part II Examination

Attempt	Component	Composition	Duration	Marks allocated
¦ 1 <sup>st</sup> Attempt	¦ Paper I	Essay questions (5)	21/2 hrs	¦ 30%
    	Paper II	True /False type (20) SBR (20)	2 hrs	30%*
!	OSCE	OSCE (5)	45 minutes	10%
1	Viva voce	 	8 minutes	¦ 10%
	In-course assessment	,,	r	20%
! L	! L	! !	! !	! !!
2 <sup>nd</sup> and subsequent attempts	Paper I	Essay questions (5)	21/2 hrs	40%
, 	Paper II	True /False type (20) SBR (20)	2 hrs	35%*
1	OSCE	OSCE (5)	45 minutes	¦ 15%
1	Viva voce		8 minutes	10%

<sup>\*</sup> Marks for MCQs are composed of 60% from True/False type and 40% from SBR
In order to pass the examination, a candidate has to obtain a minimum aggregate of 40% of the total mark of Paper I, Paper II, and a minimum of 50% of the total mark. A candidate obtaining an aggregate of 70% or above at the first attempt, is awarded a Distinction.

# Scheme of Examination and Allocation of Marks for Final Examination for Medical Degrees (Final MBBS Examination) – held at the end of 14<sup>th</sup> term

#### **MEDICINE**

First attempt

Pass mark in Medicine is 50%. In addition, a candidate has to obtain a minimum of 45% in theory and a minimum of 50% in the clinical component to pass. A candidate obtaining an aggregate of 70% or more in the first attempt is awarded a distinction.

#### **OBSTETRICS & GYNAECOLOGY**

#### First attempt

Theory paper I 
$$(1 \text{ Long Essay} + 4 \text{ SEQ})$$
 2 hrs. = 20  
Theory paper II  $(20 \text{ MTF} / \text{MCQ} + 30 \text{ SBA})$  2 hrs. = 20  
Obst. Case 20 mins. with patient, 20 mins. with examiners = 20

```
Gynae case
                      20 mins. with patient, 20 mins. with examiners
                                                                           = 20
       Continuous Assessment (Professorial Appointment) 10 + 10
                                                                          = 20
                                                                                  100
Second and subsequent attempts
       Theory paper I (1 Essay + 4 SEQ)
                                                    2 hrs.
                                                                           = 20
       Theory paper II (20 MTF / MCQ + 30 SBA)
                                                     2 hrs.
                                                                          = 20
                      20 mins. with patient, 20 mins. with examiners
                                                                          = 20
       Obst. Case
                      20 mins. with patient, 20 mins. with examiners
                                                                          = 20
       Gynae case
                                                                                  80
       The total mark out of 80 will be converted to a mark out of 100
```

Pass mark in Obstetrics & Gynaecology is 50%. In addition, a candidate has to obtain a minimum of 45% in theory and a minimum of 50% in the clinical component to pass. A candidate obtaining an aggregate of 70% or more in the first attempt is awarded a distinction

#### **PAEDIATRICS**

Evaluation of the training will be done in order to assess the success in achieving objectives given in the departmental web site. Evaluation is by 1) in-course assessments 2) end of course assessments.

#### First attempt

in-course assessment	
Clinicals	10%
MCQ	05%
OSCE	05%
Final MBBS examination (End of course)	
Theory	
Essay	20%
MCQ	20%
Clinicals	
Long case	20%
Short cases	20%

	Total		100%
Second and subsequent attempts In-course assessment End of course		0%	
Theory Essay MCQ Clinicals			25% 25%
Long case Short cases			25% 25%
	Total		100% ====

The overall pass mark in Paediatrics is 50%. In addition the candidate has to obtain a minimum of 45% mark in theory and a minimum of 50% in the clinical component to qualify for a pass. Any candidate obtaining an aggregate of 70% or above at the first attempt, is awarded a Distinction.

## **PSYCHIATRY**

# Fist attempt

Theory

Common MCQ SEQ	-20 True/false type+ 30 -5 questions	SBA type questions	- 2 hours - - 3 hours -	25% 25%
		Total	-	50%
Clinical				
Continuous assessment -				10%
Long case (1 case	- 60 minutes)		- 25%	
OSCE/short case			-	15%
		Total	-	50%

Pass mark in Psychiatry is 50%. In addition, a candidate has to obtain a minimum of 45% in theory and a minimum of 50% in clinicals to pass the examination.

A candidate obtaining an aggregate of 70% or more in the first attempt will be awarded a Distinction

## Second and subsequent attempts

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Common MCQ -20 True/false type+ 30 SBA type questions - 2 hours - 25% SEQ -5 questions - 3 hours - 30%

Clinical

Long case (1 case - 60 minutes) - 25%

OSCE/short case - 20%

100%

#### SURGERY

## **Theory**

Consist of two papers, essay (5 questions- 3 hours) and MCQ (50 questions – 20 MCQs and 30 SBRs- 2 hours). A minimum of 45% should be obtained in this section.

## **Clinicals**

Consist of one long and several short cases. Minimum 50% should be obtained in this section.

## Viva voce

#### In-course assessments

At the end of Professorial Appointment

### Allocation of marks

	First attempt	2 <sup>nd</sup> &subsequentattempts
Professorial Appointment	10%	Nil
Final MBBS Examination		
Theory	40%	45%
Clinicals	40%	45%
Viva voce	<u>10%</u>	<u>10%</u>

Total 100% 100%

Over all pass mark in Surgery is 50%. In addition candidate has to obtain a minimum of 45% in theory and a minimum of 50% in the clinical component to pass. A candidate obtaining an aggregate of 70% or more in the first attmpt will be awarded a distinction.

# BY-LAWS AND REGULATIONS RELATED TO EXAMINATIONS

#### **EXAMINATION BY-LAWS AND REGULATIONS, UNIVERSITY OF RUHUNA**

BY-LAWS MADE BY THE COUNCIL OF THE UNIVERSITY OF RUHUNA UNDER SECTION 135 OF THE UNIVERSITIES ACTNO.16 OF 1978

#### **By-Laws**

- 1. These By-laws may be cited as the Bachelor or Medicine and Bachelor of Surgery (MBBS) Degree By-law No.03 of 1984
- 2. Subject to these By-laws a student may be admitted to the Degree of Bachelor of Medicine and Bachelor of Surgery if he/she.
  - a. has been duly admitted as an internal student of the University and
  - b. has been registered as a student of the University for a period not less than 4 years and 9 months, and
  - has completed to the satisfaction of the Vice-Chancellor courses of study as prescribed by these By-Laws and Rules and Regulations made thereunder, and
  - d. has passed the Second Examination for Medical Degrees, and
  - e. has passed the Third Examination for Medical Degrees, and
  - f. has passed the Final Examination for Medical Degrees and
  - g. has paid such fees or other dues as may be prescribed by the University ,and
  - h. has fulfilled any other conditions or requirements as may be prescribed by the University.

- 3. The courses of study and syllabuses for the Examinations leading to the Degree of Bachelor of Medicine and Bachelor of Surgery and the number of papers, oral examinations and other forms of evaluation in each subject, examination criteria and schemes of award of Honours shall be prescribed by the Regulations made by the Senate.
- 4. The Examinations prescribed by these By-Laws and the Regulations thereunder shall be conducted by a Board of Examiners in accordance with this By-Law.
- 5. For the Degree of Bachelor of Medicine and Bachelor of Surgery there shall be three Examinations referred to in this By-Laws and the Regulations thereunder as the 2<sup>nd</sup> Examination for Medical Degrees. 3<sup>rd</sup> Examination for Medical Degrees and the Final Examination for Medical Degrees respectively.

#### **Second Examination for Medical Degrees**

- 6. The Second Examination for Medical Degrees consists of examinations in Anatomy, Biochemistry and Physiology. A candidate for the Examination shall have followed to the satisfaction of the Vice-Chancellor the prescribed course of study in each of these three subjects.
- 7. The course shall be of 5 terms duration and the Examination will be held at the end of the 5<sup>th</sup> term, and a repeat examination held not less than 6 weeks after the publication of the results of the previous examination.
- 8. The examination immediately following the completion of the Course shall be deemed to be the first due or scheduled attempt.
- 9. A candidate shall be deemed to have sat the first scheduled examination, irrespective of whether it has been actually attempted or not, unless a valid excuse has been submitted and accepted by the Senate. This attempt shall be considered the candidate's first attempt at the examination.
- 10. If the excuse has been accepted, the examination immediately following on the expiry of the period of postponement recommended by the Faculty of Medicine shall be the candidate's first attempt.
- 11. In the absence of an accepted excuse, failure to sit any due or scheduled examination will be considered as an unsuccessful attempt at the Examination.

- 12. A student shall not be a candidate for this Examination if a period of 3 years or more has elapsed since his/her registration as a medical undergraduate. Provided that where a period of 3 years has elapsed, a student may be a candidate with the special consent of the Senate given on the recommendation of the Faculty of Medicine.
- 13. A candidate shall be deemed to have passed the Second Examination for Medical Degrees if he/she has, at one and the same examination, satisfied the Board of Examiners in each of the three subjects, Anatomy, Biochemistry and Physiology. Provided that a candidate may be referred in one or two of the three subjects at the Second Examination, and shall be deemed to have passed the Examination when he/she has passed the referred subject or subjects.
- 14. A candidate who has been unsuccessful in all three subjects in the first three scheduled attempts shall not be permitted to sit again for the Examination.
- 15. A candidate who has passed one to two subjects in the first 3 scheduled attempts may be permitted a fourth attempt at the Examination. Should he/she be unable to complete the Examination at the fourth attempt, he/she shall not be permitted to sit again for the Examination.

#### Third Examination for Medical Degrees

- 16. A student shall not be competent to enter the Course for the Third Examination for Medical Degrees unless and until he/she has passed the Second Examination for Medical Degrees.
- 17. A candidate for the Third Examination for Medical Degrees shall have
  - (i) passed the Second Examination for Medical Degrees
  - thereafter completed to the satisfaction of the Vice-Chancellor prescribed courses of study in each of the subjects specified for the Third Examination.
- 18. The Third Examination shall be divided into two parts, as follows:
  - Part 1 Microbiology and Parasitology
  - Part II- Community Medicine, Forensic Medicine, Pathologyand Pharmacology
- 19. The Course for Part I of the Examination shall be of 3 terms' duration from the 6<sup>th</sup> to the 8<sup>th</sup> term. The Examination will be held at the end of the 8<sup>th</sup> term and a repeat examination held not less than 6 weeks after the publication of the results of the previous examination.

- 20. The Course for Part II of the Third Examination shall be of 6 terms' duration from the 6<sup>th</sup> to the 11<sup>th</sup> term. The Examination will be held at the end of the 11<sup>th</sup> term and a repeat examination held not less than 6 weeks after the publication of the results of the previous examination.
- 21. The Examination immediately following the completion of the Course for each Part of the Third Examination for Medical Degrees shall be deemed to be the first due or scheduled attempt.
- 22. A candidate shall be deemed to have sat the first scheduled examination, irrespective of whether it has been actually attempted or not unless a valid excuse has been submitted and accepted by the Senate. This attempt shall be considered as the candidate's first attempt at the examination.
- 23. If the excuse has been accepted, the examination immediately following on the expiry of the period of postponement recommended by the Faculty of Medicine shall be the candidate's first attempt.
- 24. In the absence of an accepted excuse, failure to sit any due or scheduled examination will be considered as an unsuccessful attempt at the examination
- 25. A candidate shall be deemed to have passed each Part of the Third Examination for Medical Degrees if he/she has, at one and the same examination, satisfied the Board of Examiners in each subject of that part, provided that a candidate may be referred in one or more of the subjects in that Part, and shall be deemed to have passed that Part of the Examination when he/she has passed the referred subject or subjects.
- 26. Deleted.
- 27. A candidate shall be deemed to have passed the Third Examination for Medical Degrees when he/she has passed each Part of the Examination taken at one and the same time or at more than one attempt.

#### **Final Examination for Medical Degrees**

- 28. The course for the Final Examination for Medical Degrees shall be of 9 terms' duration, from the 6<sup>th</sup> to the 14<sup>th</sup> term, and a student shall not be competent to enter the course unless and until he/she has passed the Second Examination for Medical Degrees.
- 29. The Final Examination for Medical Degrees shall consist of an examination in Medicine (including Psychiatry),in Obstetrics & Gynaecology, in Paediatrics and Surgery.

- 30. A candidate for the Final Examination for Medical Degrees shall have
  - (i) been registered as a medical student for a period not less than 4 years and 9 months, and
  - (ii) completed 9 academic terms after passing the Second Examination for Medical Degrees, and
  - (iii) passed the third Examination for Medical Degrees, and
  - (iv) completed to the satisfaction of the Vice Chancellor the prescribed course of study in each of the subjects, Medicine, Obstetrics &Gynaecology, Paediatrics, Psychiatry and Surgery.
  - (v) achieved English competency of the level stipulated under section 40 (A).
- 31. The Final Examination immediately following the completion of the above qualifications shall be deemed to be the first due or scheduled attempt.
- 32. A candidate shall be deemed to have sat the first scheduled examination irrespective of whether it has been actually attempted or not, unless a valid excuse has been submitted and accepted by the Senate. This attempt shall be considered as the candidate's first attempt at the whole Final Examination.
- 33. If an excuse has been accepted, the Final Examination immediately following the expiry of the period of postponement recommended by the Faculty of Medicine shall be considered the candidate's first attempt.
- 34. In the absence of an accepted excuse, failure to sit any due or scheduled examination will be considered as an unsuccessful attempt at the examination.
- 35. A candidate shall be deemed to have passed the Final Examination for Medical Degrees if he/she has, at one and the same examination, satisfied the Board of Examiners in each of the subjects prescribed, provided he/she has passed the Second and Third Examinations for Medical Degrees. A candidate can be referred in one or more subjects at the Final Examinations.
- 36. A candidate passing anyone subject at the Final Examination shall pass at least one other subject within the next 3 scheduled attempts. Failing this, he/she will have to re-sit the whole Examination.
- 37. A candidate who has passed any two subjects shall pass at least one other subject during the next 3 scheduled attempts. Failing this, he/she will have to re-sit the whole Examination.

- 38. A candidate who has passed any 3 subjects shall pass the fourth subject in the next 3 scheduled attempts. Failing this, he/she will have to re-sit the whole Examination.
- 39. A student may be granted permission to postpone a scheduled attempt on the basis of a valid excuse submitted to and accepted by the Senate. Each period of exemption granted will be considered by the Senate on the basis of individual merit.
- 40. A student shall complete his/her Final Examination **either** within 6 years or 12 scheduled attempts after the first scheduled attempt, all periods of exemption granted by the Senate being excluded when computing this six year period, or within 10 years after registration as a student of the Faculty of Medicine, whichever is less.
- 40(A). A student shall achieve the level 5 competency in reading and writing at English Proficiency Examination conducted by the Faculty of Medicine, University of Ruhuna, taken at one and the same time or at more than one attempt. The student shall be deemed eligible to sit for the Final MBBS examination only upon achieving Level 5 competency in the above examination. Any student not achieving the above competency level shall not be permitted to sit for the Final MBBS examination. A student may claim exemption from the above examination subject to approval from the Senate of the University of Ruhuna on the recommendation of the Board of the Faculty of Medicine that above competency has been demonstrated at a similar examination test English language competency.

#### **Award of Honours and Distinctions**

- 41. (a) A candidate who has been successful at the Second
  Examination for Medical Degrees may be awarded First Class Honours or Second Class Honours (Upper Division) or Second Class Honours (Lower Division) or a pass, as the case may be.
  - (b) A Candidate shall not be eligible for Honours unless he/she has taken the Examination on the earliest occasion on which he/she is qualified to do so, provided that it shall be within the power of the Senate to declare, for some specified reason, that he/she is eligible for Honours at a subsequent occasion.
  - (c) A candidate shall not be eligible for Honours unless he/she has passed the Examination at his/her first scheduled attempt.
- 42. (a) A candidate who has been successful at the Third

- Examination for Medical Degrees as a whole may be awarded First Class Honours or Second Class Honours (Upper Division) or Second Class Honours (Lower Division) or a pass, as the case may be.
- (b) A Candidate shall not be eligible for Honours unless he/she has taken each Part of the Examination on the earliest occasion on which he/she is qualified to do so, provided that it shall be within the power of the Senate to declare, for some specified reason, that he/she is eligible for Honours at a subsequent occasion.
- (c) A candidate shall not be eligible for Honours unless he/she has passed each part of the Examination at the first scheduled attempt.
- 43. (a) A candidate who has been successful at the Final Examination for Medical Degrees may be awarded First Class Honours or Second Class Honours (Upper Division) or Second Class Honours (Lower Division) or a pass, as the case may be.
  - (b) A Candidate shall not be eligible for Honours unless he/she has taken each Part of the Examination on the earliest occasion on which he/she is qualified to do so, provided that it shall be within the power of the Senate to declare, for some specified reason, that he/she is eligible for Honours at a subsequent occasion.
  - (c) A candidate shall not be eligible for Honours unless he/she has passed the whole Examination at the first scheduled attempt.
- 44. In any examination, a candidate may be awarded a mark of Distinction in any subject in which he/she shows special merit, provided that he/she is sitting that examination for the first time, and that he/she passes the whole examination or in the case of the Third Examination for Medical Degrees, the Part of the Examination, at one and the same Examination.
- 45. Any question regarding the interpretation of the By-Laws shall be referred to the Council of the University of Ruhuna whose decision thereon shall be final.

## REGULATIONS MADE BY THE SENATE UNDER SECTION 136 OF THE UNIVERSITIES ACT, NO. 16 OF 1978

 These Regulations may be cited as the Bachelor of Medicine and Bachelor of Surgery Regulations No. 1 of 1984.

- 2. Regulations applicable to 2<sup>nd</sup> MBBS, 3<sup>rd</sup> MBBS and Final MBBSExaminations.
- 2.1 A candidate who obtains 40% marks\* in theory and an overall averageof 50% marks in a subject shall be deemed to have passed in that subject.
  (\* Some departments have raised the minimum pass mark in theory to 45% as given in this Handbook under the scheme examination and allocation of marks).
- 2.2 A candidate who obtains an overall average of 70% marks in a subject shall be deemed to have obtained a distinction in that subject provided that he/she is sitting that examination for the first time and that he/she passes the whole examination or in the case of the Third Examination for Medical Degrees, the part of the examination, at one and the same Examination.
- 2.3 A candidate who has passed in at least one subject but has obtained a minimum of 25% marks in the other subject/s shall be considered to be referred in the latter subject/s.
- 2.4 A candidate who passes an examination at the first scheduled attempt and obtained an overall average mark of 70% or above at that examination shall be eligible for First Class (Honours).
- 2.5 A candidate who passes an examination at the first scheduled attempt and obtained an overall average mark of 65% to 69% at that examination shall be eligible for Second Class Upper Division (Honours).
- 2.6 A candidate who passes an examination at the first scheduled attempt and obtained an overall average mark of 60% to 64% at that examination shall be eligible for Second Class Lower Division (Honours).
- 3. Additional Regulations applicable to the Third MBBS Examination
  In addition to Regulations 2.1, 2.2, 2.3, 2.4, 2.5 and 2.6, Regulation 3.1 is applicable to the 3<sup>rd</sup> MBBS Examination.
- 3.1 In the 3<sup>rd</sup> MBBS Examination a candidate will be eligible for Honours only if he/she passes both part I and Part II at the first scheduled attempt.
- 4. Additional Regulations applicable to the Final MBBS Examination
  In addition to Regulations 2.1, 2.2, 2.3, 2.4, 2.5 and 2.6, Regulation 4.1, 4.2, 4.3, and 4.4 are applicable to the Final MBBS Examination.

- 4.1 Should a student be unable to take the examination at the first scheduled attempt due to his/her being repeated in a clinical appointment on account of unsatisfactory work, he/she may be allowed to sit the repeat Examination following the first scheduled attempt, and will be eligible for Honours on the results of that Examination.
- 4.2 A Candidate should obtain a minimum of 50% marks for the clinicals in each subject to pass in that subject.
- 4.3 A candidate who has passed the Final MBBS Examination at the first scheduled attempted and obtained an average of 64% marks at the Final MBBS Examination shall be eligible for Second class Upper Division (Honours) provided he/she
  - has obtained Second Class Upper or First Class Honours in both the Second and Third MBBS Examination, and
  - b) has a cumulative average mark of 65% or above at the Second, Third and Final MBBS Examinations.
- 4.4 candidate who has passed the Final MBBS Examination at the first scheduled attempted and obtained an average of 58% or 59% marks at the Final MBBS Examination shall be eligible for Second Class Lower Division (Honours) provided he/she
  - a) has obtained Honours in both Second and Third MBBS Examinations, and
  - b) has a cumulative average mark of 60% or above at the Second, Third and final MBBS Examinations.
- 5. The first scheduled attempt in this context shall be determined by the By-Laws.
- 6. These Regulations shall be effective from the Academic year 1983/84.

Provision for re-scrutinization of marks and grades of undergraduates Students are entitled to request for rescrutinization of marks and grades for undergraduate examinations as stated in the UGC circular 978 issued in 2012 (Further details are available in the Dean's office and in the UGC website (<a href="www.ugc.ac.lk">www.ugc.ac.lk</a> – look under policy and then under commission circulars)

# **EXAMINATION OFFENCES**

The following are deemed to be Examination Offences.

- a. Possession of documents, notes or other unauthorized material;
- b. Copying or exchange of notes or answer scripts;
- c. Attempting to obtain or obtaining improper assistance from any other person or cheating or speaking to any person other than an authorized person;
- d. Impersonating;
- e. Continuing to write after the announcement to stop writing by the Supervisor;
- f. Aiding and abetting in the commission of any of these offences;
- g. Disorderly conduct that may disturb the conduct of the Examination.

## **CHAPTER 24**

## **GOLD MEDALS AND AWARDS**

#### **Gold Medals and Awards**

• Dr. A.M. Kulatilleke Award for Anatomy.

A cash award is made to the student who scores the highest mark over 70% in Anatomy and passes the 2<sup>nd</sup> MBBS Examination with 1<sup>st</sup> or 2<sup>nd</sup> class Honours. The award was made in 1983 by Mrs. Lena Kulathilleke in memory of her husband Dr.A.M. Kulathilleke, former Visiting Surgeon, Galle.

Mr. and Mrs. M.G. Fonseka Prize for Anatomy

This award was established in 1994 and consists of a cash award in twelve monthly installments awarded to the student obtaining the highest mark in Anatomy at the main 2<sup>nd</sup> MBBS Examination held every year.

• C.I.C. Awards for the 2<sup>nd</sup> MBBS Examination

The Chemical Industries (Colombo) Ltd. gives two cash awards for the 2<sup>nd</sup> MBBS Examination from 1985. The first award is given to the student who scores the highest aggregate at the 2<sup>nd</sup> MBBS Examination. The second award is given to the two most deserving students from among the first ten students at the 2<sup>nd</sup> MBBS Examination.

• JayanthiSriyaRasaputhram Memorial Award for the 3<sup>rd</sup>MBBS Part I Examination

This is awarded by Mr. WarnasenaRasaputhram, former Governor of the Central Bank of Ceylon, in memory of his late wife, to a Student from the Southern Province who scores the highest aggregate at the 3<sup>rd</sup> MBBS Part I Examination.

Lionel Memorial Award for Pharmacology

This is awarded by the Ceylon College of Physicians from 1983 in memory of late Professor N.D.W.Lionel, Professor of Pharmacology, Faculty of Medicine Colombo, to the student who scores the highest mark in Pharmacology at the 3<sup>rd</sup> MBBS Part II Examination.

Illesinghe Memorial Scholarship by RUMSAA member Dr. Dushanthalllesinghe

This is awarded based on extracurricular activities of students performed during the first 4 years in the Faculty and only students who have successfully completed 2<sup>nd</sup> and 3<sup>rd</sup> MB in the first attempts will be eligible to apply for the scholarship.

L.A.D.Sirisena Memorial Gold Medal for Community Medicine

This is awarded by Dr. L.A.W. Sirisena, in memory of his late father, to the student who scores the highest mark over the 70% in Community Medicine at the 3<sup>rd</sup> MBBS Part II Examination.

C.I.C. Awards for the 3<sup>rd</sup> MBBS Part II Examinaitons

The Chemical Industries (Colombo) Ltd. gives two cash awards for the 3<sup>rd</sup> MBBS Part II Examination. The first award is given to the student who scores the highest aggregate at the 3<sup>rd</sup> MBBS Part II Examination. The second award is given to the two most deserving students from the first ten students at the 3<sup>rd</sup> MBBS Part II Examination.

Gold Medal for Paediatrics awarded in memory of Mr. & Mrs. C.R. de Silva

This Gold Medal is awarded to the student who obtains First or Second Class Honours at the Final MBBS Examination and scores the highest mark of 70% or above in Paediatrics. This Gold Medal was donated in 1983 by Dr. (Miss) Stella de Silva, Consultant Paediatrician, in memory of her parents, the late Proctor and Mrs.C.R.de Silva.

Miss SadhaPerera Memorial Gold Medal for Obstetrics &Gynaecology

A Gold Medal donated by Dr. and Mrs. Wilfred S.E. Perera in 1983 in memory of their late daughter to the student who pass the Final MBBS Examination with First or Second Class Honours and scores the highest mark (70% or more) in Obstetrics &Gynaecology.

Dr. P.R.Anthonis Gold Medal for Surgery

A Gold Medal donated in 1983 by Dr. P.R.Anthonis, Consultant Surgeon, to the student who pass the Final MBBS Examination with First or Second Class Honours and scores the highest mark (70% or more) in Surgery.

Wijayawardhana Gold Medal for Medicine

A Gold Medal Donated in 1986 by Dr. U.G. Wijayawardhana, Consultant Cardiologist, in memory of his parents Mr. Justin and Mrs.JinaseeliWijayawardhana, to the student who scores the highest mark (70% or more) in Medicine at the Final MBBS Examination .

Caroline Mohhotti Gold Medal

A gold medal donated by Dr. J.E. Mohotti, in memory of his late mother, to the student who scores the highest aggregate at the Final MBBS Examination.

Sir Ernest and Lady de Silva Memorial Gold Medal

A Gold Medal donated in memory of Sir Ernest and Lady de Silva by Dr. and Mrs. O.R. Medonza, is awarded to the student who passes the Final MBBS Examination with First or Second Class Honours and who has the highest mean score when Medical Examinations (2<sup>nd</sup>, 3<sup>rd</sup> and Final MBBS) are considered together.

Christie Dias Perera Memorial Gold Medal for Pathology

Awarded to the student who obtains the highest marks with Distinction in Patholgoy at 3<sup>rd</sup> MBBS Part II Examination.

Professor Neil Fonseka Memorial Gold Medal for Pharmacology

Awarded to the student who obtains the highest marks in Pharmacology at the first attempt of the main 3<sup>rd</sup> MBBS Part II Examination.

NeliaMendis Gold Medal for Physiology

A Gold Medal Donated by Senior Professor SusirithMendis, in memory of his late wife Mrs. NeliaMendis, is Awarded to the student who obtains the highest marks in Physiology at the main 2<sup>nd</sup> MBBS Examination held each year provided that she/he has obtained (i) a Distinction in Physilogy and (ii) either a First or Second Class (Upper Division) pass in the 2<sup>nd</sup> MBBS Examination.

DVJ Harsichandra Gold Medal in Psychaitry

A Gold Medal donated by the academic staff members of the Department of Psychiatry, in memory of late Dr. D.V.J. Harischandra, is awarded to the student who obtains the highest marks with Distinction in Psychiatry at the first attempt of the Final MBBS Examination.

#### Vice Chancellor's Awards and Deans Awards for undergraduates

University has recently introduced the Vice Chancellor's Awards and Deans Awards for undergraduates. Applications will be called from undergraduates every year. Guidelines for applicants will be available in the Dean's office. Academic performance as well as achievements in sports and other extracurricular & co-curricular activities will be considered when selecting candidates for these awards.

# **Chapter 25**

## **Student Service Facilities**

#### The Student Counsellors

The Faculty has a Student Support Service (SSS). Apart from academic staff members who have over the years, made themselves available for advice on academic matters as well as personal problems in the capacity of mentors, there are eight appointed Student Counsellors. They are Drs. Mahinda Rodrigo (Deputy Senior Student Counsellor), Gaya Wijayaratne, M.H.A.D de Silva, C.J. Wijesinghe, C.M. Wickramatilake, M.T. Napagoda, A.P. Attanayake.

#### **Health Services**

The University Medical Centre was started at the University in December 1985. A medical examination for all new entrants is an admission requirement for the simple reason that a new entrant may suffer in silence. Medical student can seek assistance on health matters from members of the clinical academic staff as well as from the medical staff of the Teaching Hospitals, Karapitiya and Mahamodara. The UMO designate for the Faculty of Medicine is Dr. H.M.M.Herath (Department of Medicine).

#### Other Services

#### Canteens

Canteen facilities are available for medical students within the premises of the Faculty of Medicine at Karapitiya.

# **CHAPTER 26**

# STUDENT UNION AND SOCIETIES

## **Approved Student Unions and Societies in the Medical Faculty**

- Faculty of Medicine Students Council
- Arts Circle (Faculty of Medicine)
- Buddhist Brotherhood (Faculty of Medicine)
- Muslim Majlis (Faculty of Medicine)
- Explorers Club
- Medical Student's Self-Help Fund Society
- Study Group on Food and Drugs
- Dancing Club
- Air Rifle Shooting Club
- Horticulture Society

# **CHAPTER 27**

# **ELECTIVE ATTACHMENTS FOR FOREIGN STUDENTS**

Medical students from many countries spend periods up to 16 weeks in elective appointments at the Faculty of Medicine, benefiting richly from the abundant clinical material available at the Teaching Hospitals affiliated to the Faculty or in different departments of the Faculty and in the Faculty's field practice area in Bope-Poddala. Clinical attachments are arranged by the Dean's Office and fees are levied for the elective appointments.

# **Eligibility**

Applicants must be bona-fide students of a medical school. Applications should be made through the Dean or authorized person of that Medical School on the prescribed form. This form could be obtained from the Dean's Office or can be downloaded from the University of Ruhuna Web Site.

## **Postings**

Students may apply for postings in any discipline. Postings are counted in weeks commencing on a Monday. The exact date for any particular posting should be supplied as admission depends on whether the Head of the Department concerned is able to provide necessary facilities and supervision.

#### Fees

50 US dollars per week. Fees could be paid on arrival in Sri Lanka.

#### **Definition of sponsorship for South East Asian Region**

Sponsorship means full support of the candidate for the attachment by a UN Agency, a bilateral aid agency such as USAID, C-Plan or by a national government.

#### **Immigration**

Immigration laws of Sri Lanka require from visitors evidence of the possession of sufficient funds for their maintenance during their stay in Sri Lanka.

# **CHAPTER 28**

# GUIDELINES FOR ACTION TO BE TAKEN FOR STUDENT ABSENTEEISM, UNSATISFACTORY PERFORMANCE AND CONDUCT UNBECOMING DURING THE PROFESSORIAL APPOINTMENT

The following guidelines are the recommendations of the committee of Heads of Clinical Departments. They were approved by the 313<sup>th</sup> Senate meeting held on 30.11.2016.

#### **SECTIONS**

- 1. Actions for being absent for a period of time
- 2. Actions for unsatisfactory performance
- 3. Actions regarding unbecoming conduct
- 4. Reporting to Dean
- 5. Nature of extension of training (directives)
- 6. Confirmation of extension of training and informing students

#### **SECTION ONE**: Actions for being absent for a period.

- 1.1 of over 4 weeks with or without a medical certificate.
  - 1.1.1 To repeat the entire appointment.
  - 1.1.2 Should not be allowed to appear for the End Appointment Test scheduled with the own group.
- 1.2 Between one and four weeks with or without medical certificate.
  - 1.2.1 Extension of training for an equivalent period absent.
  - 1.2.2 May be allowed to appear for the End Appointment Test as determined by the Head depending on the work doneduring the rest of the appointment.
- 1.3 Less than one week without a medical certificate or prior approval.
  - 1.3.1 Additional learning / training tasks as stipulated by the Head.
  - 1.3.2 Should be allowed to sit the End Appointment Test.
- 1.4 Less than one week with a medical certificate or prior approved leave.
  - 1.4.1 May be signed up if performance is satisfactory.
  - 1.4.2 Should be allowed to sit the End Appointment Test.

**SECTION TWO**: Actions for unsatisfactory performance.

- 2.1 The Head to take suitable action (such as additional learning/training tasks) after discussion with other academic staff members of the department, considering the seriousness of the lapse in relation to the objectives of the course.
- 2.2 The students should be allowed to sit the End Appointment Test.

#### **SECTION THREE**: Actions for unbecoming conduct.

These acts shall be categorized as either minor or major.

- 3.1 Minor (such as late arrivals or early departure, being absent during organized teaching activities, not performing allotted tasks etc.).
- 3.1.1 The Head to take appropriate action (such as additional learning/training tasks) after discussion with other academic staff members of the department, considering the nature of the offence.
- 3.2 Major (disruptive behavior, copying, unethical behavior, dishonesty, under influence of liquor or drugs etc.).
  - 3.2.1 The Head or a senior teacher to take suitable action depending on the nature of the offence and immediately inform the Dean (or the Head) and arrange for an inquiry either within the Department or by the Dean depending on the nature of the offence.
  - 3.2.2 Disciplinary action taken at the level of the department should not include extension of the training period.

#### **SECTION FOUR**: Reporting to Dean.

- 4.1 Major offences categorized under section 3.2.1 above.
- 4.2 Any extension of training categorized under sections 1.1 & 1.2 above.

## SECTION FIVE: Nature of extension of training.

- 5.1 Period of four weeks and over.
  - 5.1.1 The relevant Head to inform the clinical Coordinator to allocate the student to another group to serve the extension.
  - 5.1.2 The student should fulfill this requirement during a formally arranged appointment by the clinical Coordinator and the student should follow all aspects of training.
- 5.2 For period less than four weeks.
- 5.2.1 The student should fulfill this requirement during aavailable time in concurrence with the Head. The Head to determine the nature of work to be carried out during this period.

**SECTION SIX**: Confirmation of extension of training and informing students.

- 6.1 All decisions regarding extension of training should be discussed and approved at a Departmental meeting.
- 6.2 The student concerned should be informed officially in writing, with a copy to the Dean, indicating the reasons for the extension of training and the tasks that should be fulfilled during this period.

THE HEADS OF CLINICAL DEPARTMENTS ARE REQUESTED TO FOLLOW THE ABOVE GUIDELINES WITH EFFECT FROM 30.11.2016

# CHAPTER 29 SRI LANKA MEDICAL COUNCIL SUBJECT BENCHMARK STATEMENT IN MEDICINE

#### 1. Introduction

Scope of SBS

1. Subject benchmarking is an essential component of quality assurance in the university system. This Subject Benchmark Statement (SBS) in Medicine provides guidelines and an academic reference point for courses leading to the award of medical degrees in Sri Lanka. It describes the characteristics of a graduate in medicine, which will enable him to function effectively, initially as an intern house officer, and on satisfactory completion of internship, as a basic doctor providing independent primary care, or as a medical officer in state or private sector institutions, or as a trainee in a postgraduate programme leading to further specialisation (i.e., general professional practice). The SBS is meant to be used as a guideline and is not meant to be prescriptive.

Authors

This SBS has been prepared on the authority of the University Grants Commission by a group of senior medical teachers representing all the Faculties of Medicine in Sri Lanka, in consultation with representatives from the Sri Lanka Medical Council (SLMC). Similar benchmark statements are being prepared in respect of other subjects (courses) leading to the award of a degree within the Sri Lankan university system.

Degrees covered by SBS

This statement is concerned with professional degree courses leading to award of the M.B.B.S. (Bachelor of Medicine & Bachelor of Surgery) degree. This is the undergraduate degree in Medicine awarded by all the Faculties of Medicine in Sri Lanka. All universities award subject distinctions and classes in different parts of the course, but terminology may differ. Faculties of Medicine are encouraged to develop their own innovative approaches in designing and delivering their courses within the broad framework described here.

Role of SLMC

4. The Medical Ordinance (Chapter 105) of 1988 empowers the SLMC to formulate regulations for the maintenance of minimum standards of medical education including standards relating to courses of study, examinations, staff, equipment, accommodation, training and other facilities at the universities and other institutions which grant or confer any qualification which entitles a person to obtain registration under the Ordinance. The Council has appointed an Education Committee, which advises the Council on such matters and visits the medical faculties of the universities to assess their standards. In the year 2000, on the advice of its Education Committee in consultation with the Sri Lankan medical faculties, and on advice from the World Health Organization, the Council specified standards for medical schools seeking its accreditation. This SBS will complement the SLMC document as another external reference point for courses leading to the MBBS degree. The SLMC

recognizes courses of study leading to a medical degree with a minimum duration of four years and nine months, following which graduates are provisionally registered to undertake a period of internship of twelve months, in specified specialties in medicine, in recognized hospitals. On successful completion of internship, they are qualified to obtain full registration to practise.

- Internship
- At present the MBBS degree is awarded on passing the Final MBBS examination. However, in the future, with the concurrence of the SLMC, all medical faculties, and the Ministry of Health, it may be awarded only after satisfactory completion of internship.
- Intercalated degrees
- None of the Faculties provide an opportunity for an intercalated degree by coursework or research, at present. Some faculties may decide to introduce this option in the future. However, this should not in any way compromise the duration or quality of the training leading to the MBBS degree. At least one year of additional study or research would be required for award of an intercalated degree.
- Fall-back qualifications
- 7. Very few options are available at present to undergraduates who are unable or unwilling to complete the MBBS course. The University of Jaffna offers a Bachelor of Medical Sciences degree to those who have completed the 3<sup>rd</sup> MBBS examination and an additional term of project work. The University of Kelaniya offers a Diploma in Health Sciences to those who have satisfactorily completed certain specified courses but are unable to pass the Final MBBS examination within ten years. The University of Sri Jayawardenepura provides the opportunity for students who have completed the pre-clinical stage of the course, the option of changing to a B.Sc. course in Human Biology, provided that they have fulfilled certain minimum academic criteria. It is desirable for all Faculties of Medicine to develop such 'fall back' options for students who are unable or unwilling to complete the MBBS course. However, such qualifications are not equivalent to the professional degree of MBBS and will not entitle them to register with the SLMC as a medical practitioner.
- Electives
- 8. The medical course leads to a professional degree where the core curriculum is compulsory. However, opportunities for student choice should be encouraged through periods of elective study.
- Medical faculty admissions
- The undergraduate medical course should consist of least five academic years. Entry qualifications should match the high academic standards which are maintained throughout the medical degree courses. At present the entry criteria are determined by the University Grants Commission. However, these criteria should be reviewed periodically in consultation with the medical faculties.

Professional development

10. A graduate is entitled to independent practice after successful completion of one year's internship and full registration with the SLMC. Continuing professional development is essential for all graduates regardless of specialisation. If they wish to specialise, graduates will have to undertake further study in order to achieve the final professional status in their chosen field.

Extended faculty

Medicine is characterized by the need for students to acquire not only knowledge and understanding but also clinical skills and appropriate attitudes. Professional standards are of great importance as is the ability to work together with other healthcare professionals. The acquisition of clinical skills involves access to patients under the supervision of clinical teachers, usually medical practitioners, in state hospitals and in the community. While universities are responsible for the core organization and assessment of training programmes in medical education, the clinical training is arranged and provided with the active participation, guidance and co-operation of those specialist clinicians that constitute the extended faculty.

Curriculum structure

12. Undergraduate medical training provides an academic education in the basic and clinical sciences, behavioural sciences, community health and medical jurisprudence. The training also prepares undergraduates for professional practice as doctors. The course provides the undergraduate with intellectual skills such as analysis and reflection, problem solving and clinical reasoning, and has vocational, ethical and legal components. Medical schools in Sri Lanka have pre-clinical, para-clinical and clinical components in their MBBS courses. All faculties have a separate unit dealing in medical education. In keeping with global and regional trends, elements of vertical and horizontal integration amongst subjects have been introduced to varying degrees by all faculties. This has generated teaching in modules and emphasis is now on problem-oriented learning. Aspects of behavioural sciences, ethics, community care and research are also given increasing importance.

Curriculum content

- 13. The medical course consists of a core curriculum which provides the essential knowledge, understanding, clinical skills and professional attitudes which are required by any medical graduate in order that he may practise as a basic doctor. In addition, the curriculum should be designed in such a way that undergraduates can develop competencies in English and Information Technology so that they are able to develop professionally. Assessment strategies and methods should ensure that the knowledge, understanding, skills and attitudes set out in the curriculum are sufficiently covered. Clinical competencies should be rigorously assessed so as to identify those who are not yet fit for practice.
- 14. Graduates should be prepared to approach medical practice:
  - with the appropriate intellectual skills of enquiry, clinical reasoning, critical thinking and decision making;

Professional skills

- possessing sufficient knowledge of the basic and clinical sciences, and an understanding of the underlying principles of scientific method:
- with developed clinical, interpersonal and practical skills;

understanding and accepting their professional, ethical and legal responsibilities, and their limitations.

#### 2. Professional values, attitudes, behaviour and ethics

- 1. A medical degree is a vocational qualification as well as an academic award. As such, it must prepare graduates for professional activities across widely differing fields. In particular, graduates must possess all the professional skills and attributes necessary to function as an intern house officer.
- 2. Graduates must adhere to the professional standards defined by the SLMC.
- Graduates must:
  - a. be aware of the importance of the doctor patient relationship in all aspects of patient care;
  - b. adopt an empathic and holistic approach to patients and the problems they present with;
  - c. respect patient autonomy and involve patients, or where appropriate, relatives or carers as partners in therapeutic and management decisions;
  - d. be aware of and respect different cultures, values, views and beliefs;
  - e. be aware of the use of alternative medical practices, and be sympathetic and understanding if patients choose to use these practices;
  - f. remain non-judgemental in all aspects of their work and avoid stigmatizing any category of patient;
  - g. understand and engage in reflective practice, audit and appraisal of their own work, as well as that of others.
- 4. Graduates should demonstrate their ability to work effectively within a team by:
  - a. practising in a manner that promotes effective inter-professional activity, including shared learning;
  - b. working within the limits of their responsibility and capability;
  - c. making decisions in partnership with colleagues and patients;
  - d. giving leadership.
- 5. Graduates should be able to:
  - a. prioritise the care of ill patients;
  - b. prioritise their time with regard to duties and responsibilities;
  - c. maintain complete and effective medical records;
  - d. keep up to date with current medical practice.

- 6. Graduates need to apply ethical and legal knowledge to their practice, particularly in:
  - a. applying the principles of confidentiality, consent, honesty and integrity;
  - b. dealing effectively with complaints about their own practice or behaviour or that of colleagues;
  - c. being aware of and complying with legal and professional responsibilities, with respect to the issue of medical certificates, notification of infectious diseases, death and dying, drug prescribing, mental health, physical and sexual abuse of children and adults and abortion:
  - d. considering the rights of patients.
- 7. Outcomes for graduates' personal development include:
  - a. self-awareness and reflection in evaluating their performance and personal capability and recognizing the limits of their competence;
  - b. the ability to manage their learning with respect to continuing professional development;
  - c. recognizing the pressures on themselves and colleagues created by a busy professional career, and being aware of important issues in self-care, eg stress reduction, avoidance of unhealthy practices such as alcohol misuse, substance abuse and self-medication.

#### 3. Scientific foundation of medicine

- 1. The primary concern of medicine is to promote good health. In order to achieve this it is important to have a knowledge of the aetiology, diagnosis, management (treatment, rehabilitation, supportive and palliative care), prognosis, prevention of diseases and injury and promotion of health. The impact of such conditions on patients, their families, and on the community should be understood.
- 2. Graduates should demonstrate knowledge and understanding of:
  - a. the normal structure and function of the human body, the different organ systems and their inter-relationships;
  - b. changes occurring during the life cycle;
  - c. regulation of body functions, homeostasis and biochemical aspects;
  - d. the pathogenesis and pathology, risk factors, and natural history of diseases;
  - e. signs and symptoms of diseases, investigation and diagnosis, differential diagnosis, non-pharmacological and pharmacological management of diseases;
  - f. management of emergencies;
  - g. therapeutics, adverse reactions of therapy, curative and palliative therapy;
  - h. disability, rehabilitation and handicap;
  - i. the importance of record keeping;
  - j. other systems of medicine and their limitations.

- k. behavioural sciences and relationships to medical anthropology, sociology, basic psychology;
- I. the educational principles underlying learning and continuing education;
- m. ethics and legal aspects in relation to practice of medicine in Sri Lanka;
- n. the role of the family and extended family, inter-relationships and interactions with the society;
- o. cultural and ethnic differences about perception and response to illnesses;
- p. communication with the patients, families, colleagues and the society.

#### 4. Communication skills

- 1. In relation to interpersonal skills, the graduate should be competent in the following areas of communication:
  - a. listening to patients, relatives, carers and other healthcare professionals;
  - b. explaining and providing adequate information to patients and carers:
  - c. mediating and negotiating with patients, carers and colleagues;
  - d. handling complaints appropriately;
  - e. liaising with other members of the healthcare team.
- 2. It is desirable that graduates are able to communicate in the languages commonly used in Sri Lanka: both national languages and English.

#### 5. Clinical skills

All medical graduates should be competent in core clinical, interpersonal, practical and technical skills relevant to general professional practice in Sri Lanka. In relation to all aspects of clinical practice, graduates should demonstrate appropriate professional behaviours, safeguarding confidentiality, understanding the need for informed consent, recognising their own limitations. They should be prepared to seek help from more experienced health care professionals when necessary.

- 1. In relation to clinical skills, the graduate should be able to:
  - a. take a history which is patient-centred, sensitive, structured and relevant;
  - b. undertake a relevant and systematic physical and mental state examination in a sensitive manner, appropriate for age, gender, culture and clinical condition;
  - c. define problems and formulate a diagnosis or differential diagnosis based on history and examination;
  - d. select appropriate investigations and interpret their results;
  - e. make clinical decisions based upon evidence and findings;
  - f. plan patient management, recognising the:

- importance of discussing the management plan with the patient, or if appropriate, a relative or carer;
- · effect on the patient;
- relevance of age and social circumstances;
- · requirements for informed consent;
- need for team work:
- need for appropriate referrals;
- economic constraints with regard to individuals as well as in the healthcare system in a developing country.
- g. carry out those practical and technical procedures, including investigative and therapeutic measures, which are relevant to general professional practice in Sri Lanka, taking into account risks and hazards.

#### 2. Graduates should be able to:

- a. recognise emergency situations which require immediate action and be able to carry out the initial treatment of such conditions.
- b. recognise conditions which require early or immediate intervention by the healthcare team, and under appropriate supervision, undertake tasks to initiate and be involved in the care of acutely ill patients.
- c. evaluate the health needs of patients with chronic illness and disability, initiate relevant medical investigations and interventions, and plan management including referral.
- d. give appropriate input to the multi-disciplinary and multi-professional teams involved in the management of patients in need of rehabilitation or palliative care, including care of the dying.

# 6. Population health and health systems

It is important to recognize the interactions between the patient, family, society and environment.

- 1. Graduates should demonstrate understanding of:
  - a. demography and vital statistics;
  - b. basic and applied epidemiology;
  - c. epidemiological methods;
  - d. health promotion and prevention;
  - e. needs assessment and healthcare planning;
  - f. healthcare management and economics;
  - g. the organisation of curative and preventive health services in the country;
  - h. healthcare provision in disaster situations;
  - i. international health.

- 2. The graduate should be able to give advice on health promotion and disease prevention, including advice on promoting
  - a. a healthy environment and safe food;
  - b. the quality of life;
  - c. quality of healthcare provision;
  - d. community care, particularly with regard to mental health, geriatric care, maternal and child health, and care of the disabled.
- 3. The graduate should possess the knowledge, attitudes and skills necessary to deliver primary care.
- 4. The graduate should be able to liaise with different sectors of the health and social care systems and be able to manage those components relevant to the care of the patient.

# 7. Management of information

Medical graduates should possess a range of generic (transferable) skills in relation to management of information, which are expected of all university graduates. Thus the graduate should be able to:

- a. display proficiency in the English language necessary for their professional activities;
- b. retrieve and manage information of all types, including electronic information;
- c. present information clearly in written, electronic and oral forms, and communicate ideas and arguments effectively;
- d. produce and maintain contemporaneous, legible, accurate and pertinent records for patients under their care.

#### 8. Critical thinking and research

The intellectual attributes possessed by a graduate of medicine in Sri Lanka should include:

- 1. the ability to critically evaluate information and use reasoning and personal judgement in:
  - a. identifying and prioritising clinical problems;
  - b. arriving at a diagnostic hypothesis;
  - c. drawing up a management plan;
  - d. planning preventive and health promotive action.
- 2. understanding and appreciation of the scientific method and its limitations in:
  - a. formulating relevant research questions or hypotheses;
  - b. understanding of basic statistical concepts and their application in clinical practice and research;
  - c. use of appropriate methods in collecting, analysing and interpreting data;

- d. critical reading of the medical literature and determining its relevance to practice within one's own working environment.
- 3. coping with uncertainty and error in decision making by:
  - a. seeking out information when needed;
  - b. continuous self-audit and reflective practice;
  - c. acceptance of peer review.
- 4. Creativity, resourcefulness and adaptability in:
  - a. Professional development;
  - b. Clinical practice;
  - c. Institutional and infrastructural development;
  - d. research