



# Handbook

MBBS Degree Programme  
2020/2021

**FACULTY OF MEDICINE**  
**GENERAL SIR JOHN KOTELAWALA**  
**DEFENCE UNIVERSITY**



# THE LOGO OF THE FACULTY OF MEDICINE, GENERAL SIR JOHN KOTELAWALA DEFENCE UNIVERSITY



The two swords, anchor and wings represent the Sri Lanka Army, Navy and Air force respectively. The serpents and winged staff represent the symbol of the medical profession.



# FOREWORD

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I congratulate you on being selected to train as a medical professional at the Faculty of Medicine, General Sir John Kotelawala Defence University (FOM, KDU), the only medical school which trains military medical students in Sri Lanka.

Our undergraduates at the FOM include both military medical students (Cadets) as well as non-military foreign students. The FOM, KDU is a unique medical school because it includes subjects such as aeronautical, naval, nuclear, emergency, trauma and critical care medicine in addition to the subjects of a normal medical curriculum. This is done because these subjects are deemed essential to a military (Army, Navy Air Force) doctor. The academic programme aims to develop your knowledge, skills and attitudes with the intention of producing competent, dedicated and compassionate medical professionals who will also be continuous learners and researchers. The exposure to military practices will further enrich your university life and enable you to develop integral life skills such as discipline, commitment, teamwork, leadership and time management. Students at KDU are also encouraged and given ample opportunity to take part in sporting and other aesthetic events. The end result of all of the above will be to produce a well-rounded medical professional.

This handbook contains a brief history of the FOM KDU, the medical course, assessment methods leading to the MBBS degree, the code of conduct and examination by-laws which all medical students are expected to abide by. Disciplinary action will be taken in accordance with the rules of the KDU against any student who fails to abide by the rules and regulations of the KDU.

As you start your medical education, I wish you the very best for a successful and enjoyable career in the medical profession.

**Air Cdre (Prof) RANK WIjasinghe**

Dean - Faculty of Medicine

Sir John Kotelawala Defence University

January 2021





## **VISION**

To be a medical school nationally and internationally known for its unique ability to produce military and civilian medical graduates who will fulfill the health requirements of the tri-services, state sector and society at large with global outreach.

## **MISSION**

To prepare skilled leaders in the medical profession who practice patient-centered medicine of the highest ethical and medical standards across widely differing fields through training, research and lifelong education.





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## **INSTITUTIONAL OBJECTIVES**

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- To be a centre of excellence in providing high quality medical education, meeting the highest international standards, responding to the changing external environment with vision, advocacy and resilience.
- To produce highly disciplined, self-motivated and dedicated doctors who show compassion and respect towards their patients and meet their health needs in the context of their families and society.
- To produce doctors with the ability to deal with humanitarian crises such as war, terrorism, man-made and natural disasters and ensure safety of civilians as well as military personnel.
- To be a centre which provides continuing professional development and postgraduate training to health care professionals?
- To be a centre for medical innovation and research which generates new knowledge to meet the health needs of the society at large.



# INTENDED LEARNING OUTCOMES OF THE MEDICAL GRADUATES

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1. To acquire knowledge, skills and attitudes required to manage common diseases within the social, religious, cultural and economic milieu of medical practice in Sri Lanka.
2. To be able to gain the trust of patients, communicate effectively and enable patients to make informed decisions about their own health.
3. To be able to provide promotive, preventive, curative and rehabilitative care to fulfill the health needs of the individual, family and community.
4. To be able to function efficiently in multi-professional and multidisciplinary teams, both as a team player as well as a team leader.
5. To develop skills of critical thinking and appraisal of medical evidence in order to practice evidence based medicine.
6. To be able to perform basic medico-legal procedures and discharge statutory duties.
7. To acquire the skills and experience required to plan, conduct and report research using a systematic and scientific approach.
8. To be a health care professional who applies ethical principles in medical practice, in conducting research and in one's personal life.
9. To be committed to teach health professionals as well as educate society and develop the skills required to be a competent teacher and trainer.
10. To possess the appropriate attitudes towards personal and professional development through reflective practice and life-long learning.



## ADMINISTRATIVE STAFF

Dean	: Air Cdre (Prof) RANK WJjesinghe Professor of Medicine MBBS (Ruhuna), MD (Col) FRCP Edin, FRACP, FCCP, FCSANZ <b>Office</b> : 0112 - 638656 (Ext - 272) <b>Mobile</b> : 0777639379 <b>Email</b> : <a href="mailto:deanfom@kdu.ac.lk">deanfom@kdu.ac.lk</a>
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Assistant Registrar (Absorbed Students)	: Mrs. Ms. KKL De Alwis MA in Linguistics (UOK) BA (UOK) <b>Office</b> : 0112 - 638656 <b>Mobile</b> : 0710219248 <b>Email</b> : <a href="mailto:arabsorbedstudents@kdu.ac.lk">arabsorbedstudents@kdu.ac.lk</a>



# **ACADEMIC STAFF**

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## **DEPARTMENT OF PRE-CLINICAL SCIENCES**

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### **Head of the Department**

Lt. Col. (Dr) WMMS Bandara

Senior Lecturer in Biochemistry

BSc (Pdn), MSc (Pdn), MS (USA), PhD (Col), MI Biol

### **Anatomy**

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Lt. Col. (Dr.) KMN Kumarasinghe

Head - Anatomy

Senior Lecturer in Anatomy

MBBS (USJP), PhD (Australia)

Snr. Prof. TR Weerasooriya

Senior Professor of Anatomy

MBBS (Ceylon), DMSc (Kyushu)

Col. (Dr) HHLK Fernando

Senior Lecturer in Anatomy

MBBS (Ruhuna), MPhil (Ruhuna), PGDip (Col)

Executive MSc (Malaysia)

Mr. AI Abeykoon

Lecturer in Anatomy

BSc (Hons) (USJP)



## **Biochemistry**

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Dr. AJIS Rathnayake  
Head - Biochemistry  
Senior Lecturer in Biochemistry  
BSc (Col), MS (USA), PhD (Col)

Lt. Col. (Dr) WMMS Bandara  
Senior Lecturer in Biochemistry  
BSc (Pdn), MSc (Pdn), MS (USA), PhD (Col), MI Biol

Professor CL Goonasekara  
Professor in Biochemistry  
BSc (Hons) (Col), PhD (Canada), Post - Doc (Canada)

Dr. YSHTD Silva  
Lecturer (Probationary) in Biochemistry  
MBBS.(Dundee,U.K.), MSc (London),BSc (London)

## **Physiology**

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Snr. Prof. ALS Mendis  
Head - Physiology  
Senior Professor of Physiology  
MBBS (Sri Lanka), PhD (Ruhuna)

Dr. LS Kaththiriarachchi  
Lecturer (Probationary) in Physiology  
MD (Hons) (Rus)

Dr IU Wimalasiri  
Lecturer (Probationary) in Physiology  
MBBS (USJP)

Ms. DN Dahanayake  
Lecturer (Probationary) in Physiology  
BSc (Human Biology) (USJP)  
MSc. (Medical Physics)



# **DEPARTMENT OF PARA-CLINICAL SCIENCES**

## **Head of the Department**

Dr. IHS Kumarasinghe  
Head - Pathology  
Senior Lecturer in Pathology  
MBBS (Col), D Path, MD Histopathology (SL)

## **Microbiology**

Dr. WMID Nakkawita  
Head - Microbiology  
Senior Lecturer in Microbiology  
MBBS (Col), PG Dip (Micro), MD (Med Micro), Dip RC Path (UK)

Dr. PBV Navaratne  
Senior Lecturer in Microbiology  
MBBS (NCCMC), Dip (Med Micro), MD (Med Micro), BSc (USA)

Dr. FN Mubarak  
Senior Lecturer in Microbiology  
MBBS, Dip (Med Micro), MD (Med Micro)

## **Parasitology**

Lt. Col. (Dr.) PH Premaratne  
Head - Parasitology  
Senior Lecturer in Parasitology  
BSc (Hons) (Col), PhD (Col)

Prof. W Abeyewickreme  
Professor in Parasitology  
BSc (Applied Sciences) (Hons), MSc (Tropical Medicine Bangkok),  
Dip in Applied Parasitology and Entomology (D.A.P& E Kuala Lumpur)  
PhD (Medical Entomology Liverpool)



Dr. AD De Silva  
Senior Lecturer in Parasitology  
BSc (TrumanState, USA), PhD (PennState, USA)

## **Forensic medicine**

Dr. MPAB Abeysinghe  
Head – Forensic Medicine  
Senior Lecturer in Forensic Medicine  
MBBS (Pdn), DLM (Col), MD (Col)  
DMJ (Clin) (London), DMJ (Path) (London) Dip Crime, MFFLM (UK)

Snr. Prof. PR Fernando  
Senior Professor of Forensic Medicine  
MBBS, MD, FCCP, FCCGP, DMJ (London), FRCP (London), FRCP (Glasgow)  
FRCP (Edin), FRC (Path-UK)

Dr.SM Colombage  
Senior Lecturer in Forensic Medicine  
MBBS (Ceylon), DLM (Col), DMJ Clin et Path (London), MD (Col),  
MFFLM (UK), FCFPSL

## **Pharmacology**

Dr. ME Balasuriya  
Head – Pharmacology  
Senior Lecturer in Pharmacology  
MBBS (Pdn), MD (Anaesthesiology)

Snr. Prof. BMR Fernandopulle  
Senior Professor of Pharmacology  
MBBS (Ceylon), PhD (Col), FSLCGP



Dr. ADM Gunasekara  
Lecturer in Pharmacology (Probationary)  
MBBS (Chittagong Medical College)

## **Pathology**

Dr. IHS Kumarasinghe  
Head - Pathology  
Senior Lecturer in Pathology  
MBBS (Col), D Path, MD Histopathology (SL)

Dr. TI Withanawasam  
Senior Lecturer in Pathology  
MBBS (Ruhuna), Dip in Transfusion Medicine (Col)  
MD in Transfusion Medicine (Col)

Dr. RC Meegama  
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MD Medicine (Vinnitsa), Dip Path (Col), MD Chempath (Col),  
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## **Public Health & Family Medicine**

Col. (Prof.) A Balasuriya  
Head - Public Health & Family Medicine  
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MBBS (Col), MSc (ComMed) (Col), MD (ComMed), FGDBS (Homagama),  
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Snr. Prof. SR De Alwis Senevirathne  
Senior Professor of Community Medicine  
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FCCP (SL)

Dr. NS Fernando  
Senior Lecturer in Community Medicine  
MBBS (Ruhuna), MSc ComMed (Col), MD PGIM (Col)



Dr. AU Gamage  
Senior Lecturer in Community Medicine  
MBBS (Kelaniya), MSc Comm Med (Col), MD Community Medicine (Col)  
Graduate Certificate Economics (Aus)  
MSc Health Economics & Policup (Aus)

## **DEPARTMENT OF CLINICAL SCIENCES**

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### **Head of the Department**

Prof. GDI Rodrigo  
Head of Paediatrics  
Professor of Paediatrics  
MBBS (Col), DCH, MD Paediatrics (Col), MRCP (UK), MRCPCH (UK)  
D Phil (Oxon)

### **Medicine**

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Dr. BGDS Govindapala  
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Air Cdre (Prof) RANK Wijesinghe  
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Prof. KH Sellahewa  
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Surg. Cdr. (Dr.) Gayani Senanyake  
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Dr. T Samarawickrama  
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Dr. Sachithre Ilanganthilake  
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Dr. DH Jayasena  
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Dr. AMNL de Silva  
Lecturer in Medicine  
MBBS (Col), MD (Col)

Dr. DP Jayasena  
Lecturer (Probationary) in Medicine  
MBBS (Soton)



## Surgery

Dr. KDW Wijenayake  
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MBBS (Col), MS (Col), MRCS (Eng)

Snr. Prof. MHJ Ariyaratne  
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## **Paediatrics**

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Dr. SAC Dalpatadu  
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Dr. I Liyanage  
Senior Lecturer in Paediatrics  
MBBS, MD (Paediatrics)

Dr. MB Farah Yoosoof  
Lecturer in Paediatrics  
MD, MSc App., Psych (Conventry), PG Cert, Med. Ed. (SL)

## **Obstetrics & Gynaecology**

Surg. Capt. (Dr.) SNK Rodrigo  
Head - Obstetrics and Gynaecology  
Senior Lecturer in Gyn. & Obst.  
MBBS, MS, FSLCOG, FRCOG, DFSRH

Prof. Deepal Weerasekara  
Professor in Obstetrics & Gynaecology  
MBBS, MS, FRCOP, FRCS, FSLCOG



Dr. CD Ekanayake  
Senior Lecturer in Gyn. & Obst.  
MBBS (Pdn), MD, Phd (O&G), Dip in advanced Laparoscopy,  
Fellowship in Gynecological endoscopy

## Psychiatry

Dr. BJ Mendis  
Head - Psychiatry  
Senior Lecturer in Psychiatry  
MBBS (Ruhuna), MD (Col), FSLCPsy, FCCP

Dr. NFJ Fernando  
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MBBS (Pdn), MD in (Psy), FSLCPsy

Dr. IUK Mudalige  
Senior Lecturer in Psychiatry  
MBBS (Col), MD (Psy), M CCP  
Dip in Psychology, Dip in Counselling

Ms. TH Solomons  
Senior Lecturer in Clinical Psychology  
BA in Psychology (Special)(Pdn),  
Mphil in Clinical Psychology (Col) SLMC 23

Ms. MKOK De Silva  
Lecturer in Clinical Psychology  
BS Psych (Hons) (USA), MSc Applied Psych (UK), Dip Child Psych,  
Dip Psych





## **The University**

General Sir John Kotelawela Defence University (KDU) was initially established as the “General Sir John Kotelawala Defence Academy” by the Parliamentary Act No 68 of 1981 and subsequently elevated to university status by the Amendment Act No 27 of 1988. KDU is located at the Kandawala Estate in Ratmalana, which was donated by the late General Sir John Kotelawala. There are nine Faculties currently established and functional in the KDU. They include the Faculty of Defence and Strategic Studies, Faculty of Law, Faculty of Management, Social Sciences and Humanities, Faculty of Engineering, Faculty of Medicine, Faculty of Allied Health Sciences, Faculty of Graduate Studies, Faculty of Built Environment and Spatial Sciences and Faculty of Computing. The last two are located in the Southern Campus at Sooriyawewa. The other Faculties and the main administrative buildings are located in the main campus at Kandawala, Ratmalana. A specific facility for research and innovation, KDU-CARE is also located within the main campus.

## **The Faculty of Medicine**

The Faculty of Medicine, KDU was established in 2009 under a memorandum of understanding with the Faculty of Medicine, University of Ruhuna (UOR). The Faculty of Medicine (FOM), KDU adopted the curriculum of the Faculty of Medicine (UOR) with a few modifications necessitated due to it being a Medical Faculty within a Defence University. A few additional subjects such as aeronautical, naval, nuclear, emergency, trauma and critical care medicine and military training were included in the course as additions to the generic curriculum. The course covers a total period of 5 years.

The first 3 batches of medical students numbering 25, 22 and 26 respectively consisted exclusively of cadets affiliated to the tri-services. They were a constituent of the 27<sup>th</sup>, 28<sup>th</sup> and 29<sup>th</sup> intakes of the KDU. The preclinical course up to the 2<sup>nd</sup> MBBS examination was conducted at the University of Ruhuna for the first 2 batches. Intake 29 onwards, the course is conducted entirely on site at Ratmalana.



Due to the requirement of a minimum critical mass of students to run a viable and sustainable medical school, the Board of Management of the KDU decided to recruit academically eligible foreign students on a fee levying basis to complement the military students from the fourth (30<sup>th</sup>) intake onwards, subject to an upper limit of 100 students per batch.

There have been ten intakes up to date as a combination of military cadets and foreign civilian students. Up to the third intake only male cadets were recruited. Subsequent intakes have included a significant number of female cadets as well.

The MBBS degree programme is conducted by qualified and experienced academic and medical professionals. Details of the teachers at the FOM can be accessed at the KDU website ([www.kdu.ac.lk](http://www.kdu.ac.lk)).



The Faculty of Medicine

The educational activities in the first 3 semesters are confined to the FOM in the KDU campus at Ratmalana. From the 4<sup>th</sup> semester onwards, clinical training commences along with lectures. The Kotelawala Defence University Teaching Hospital (UH-KDU) was completed in 2017, which is located in Werahara. Most of the professorial clinical teaching and other relevant tertiary clinical teaching are now being carried out there. However, students also have access to many other state hospitals including the tri-service hospitals for their clinical clerkships, as necessary.



The Dehiwala - Mount Lavinia and Rathmalana Medical Officer of Health (MOH) division, have been made accessible to the KDU for the purpose of field training in Community Medicine. A Family Medicine Clinic with communication skills training laboratory has been established at the UH-KDU. A few designated general practitioners have been identified for further exposure to Family Medicine. The clinical training in Forensic Medicine is being conducted at the office of the Judicial Medical Officer (JMO), Colombo South Teaching Hospital and Kalutara General Hospital.

The KDU was given the right to conduct a MBBS course which is registrable with the Sri Lanka Medical Council (SLMC) by an Act of Parliament in 2013. The Sri Lanka Medical Council having made a desk review of the submission made by the KDU made a site inspection in 2014 and granted full recognition to the MBBS course at KDU for the purpose of registration under the section 29 of the Medical Ordinance. The first batch of military medical graduates from the KDU graduated in September 2014 has completed their internship in state hospitals in Sri Lanka.

## **Facilities at the Faculty of Medicine**

The FOM building houses all the academic and administrative staff of the FOM, lecture halls, tutorial rooms, an auditorium, state of the art teaching and research laboratories, dissection room for Anatomy, the anatomy museum, medical library, clinical skills laboratory and a student canteen. A multidisciplinary museum is also being developed and is available since 2016. Facilities for sports and recreation are available at the KDU campus whilst the swimming pool is conveniently situated at the FOM premises.



## THE PRE-CLINICAL SCIENCES

The student will study the Preclinical Science subjects in the first three semesters. Preclinical Sciences include 3 subject areas, namely Anatomy, Biochemistry and Physiology. The curriculum is designed to introduce and facilitate the teaching and learning of the basic structure and function of the human.

The main assessment in the Preclinical Sciences program is the 2<sup>nd</sup> MBBS examination, held at the end of the 3<sup>rd</sup> semester assessing all 3 subjects. Additional in-course assessments will be held at the end of each semester, a percentage of the marks will be carried over to the final marks at the 2<sup>nd</sup> MBBS examination. The details of the in-course assessments and the 2<sup>nd</sup> MBBS examination are given under each subject.

A minimum of 80% attendance at all teaching activities including lectures, tutorials, small group discussions and laboratory training is required to be eligible to sit for the 2<sup>nd</sup> MBBS examination. To pass a subject at the 2<sup>nd</sup> MBBS examination, the student should score a minimum of 40% in theory papers and obtain a minimum total aggregate of 50% for each subject. A candidate obtaining 70% or more in a subject in the first attempt will be awarded a distinction pass in that subject. However, it must be noted that the 2<sup>nd</sup> MBBS exam is a barrier examination. A student must pass this examination to proceed to the Paraclinical Sciences and clinical training. A student is given only four (4) attempts to pass this examination. Failure to pass this examination within four (4) attempts would lead to de-registration. Further details relevant to the preclinical course can be found in the Faculty of Medicine examination by-laws and regulations.



## ANATOMY

**Duration of the course:** 3 semesters

Human anatomy is a branch of medical science dealing with the structure of the human body. This is taught through lectures and by dissection of cadavers. The term “anatomy” is derived from the ancient Greek term meaning “to dissect”. Human anatomy is considered as one of the basic essential sciences of medicine.

The discipline of anatomy is divided into macroscopic and microscopic anatomy. Macroscopic anatomy, or gross anatomy, is the examination of the human body parts using unaided eyesight. Gross anatomy also includes the branch of superficial or surface anatomy. On the other hand, microscopic anatomy or histology involves the use of instruments to study structure of the human body not visible to the naked eye. Human anatomy also encompasses both clinical and basic science disciplines including developmental anatomy, human genetics, neuroanatomy and radiology.

### **Intended Learning Outcomes:**

1. Gain a sound knowledge of the normal disposition of the structure of the human body, commonly encountered variations in gross structure, functional and applied anatomy of the various organs as an essential prerequisite for solving clinical problems which, they will encounter in their future career as physicians.
2. Be able to identify the microscopic structures of various cells, tissues and organs in the human body and correlate them with their functions as an important prerequisite to understand their altered state in various disease processes.
3. Gain an understanding of the critical stages of normal development, the fundamentals of human genetics and the common genetic disorders.



## The Academic Programme

Subject Area	Teaching/ Learning Method	Semester
<b>Gross anatomy</b>	Dissections - 260 hours Lectures - 40 hours Tutorials - 84 hours	1-3
<b>Clinical anatomy</b>	Lectures - 20 hours	1-3
<b>Histology</b>	Lectures - 28 hours Practical - 31 hours	1-3
<b>Neuroanatomy</b>	Lectures - 24 hours Practical- 12 hours	3
<b>Genetics</b>	Lectures - 20 hours	1,3
<b>Embryology</b>	Lectures - 34 hours	1-3

### Assessments

Three continuous assessment examinations will be held at the end of the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> semesters. At the end of the 3<sup>rd</sup> semester the 2<sup>nd</sup> MBBS examination will be held. All examinations will be conducted in accordance with KDU Faculty of Medicine examinations by-laws.



### Continuous Assessment 1 (End of 1<sup>st</sup> semester)

Method of Assessment	No. of questions	Marks allocated to 2 <sup>nd</sup> MBBS
MCQ	30	2
Spot Gross anatomy Histology	20 5	2

### Continuous Assessment 1 - Supplementary

Method of Assessment	Duration	Marks allocated to 2 <sup>nd</sup> MBBS
Spot Viva	40 minutes	4

### Continuous Assessment 2 (End of 2<sup>nd</sup> semester)

Method of Assessment	No. of questions	Marks allocated to 2 <sup>nd</sup> MBBS
MCQ	30	2
SEQ Gross Anatomy Histology	20 5	2

### Continuous Assessment 2 - Supplementary

Method of Assessment	Duration	Marks allocated to 2 <sup>nd</sup> MBBS
Spot Viva	40 minutes	4

### Continuous Assessment 3 (Neuroanatomy - end of 3<sup>rd</sup> semester)

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS
MCQ	30	2



## Continuous Assessment 3 – Supplementary

Method of Assessment	Duration	Marks allocated to 2 <sup>nd</sup> MBBS
Spot Viva	20 minutes	2

### 2<sup>nd</sup> MBBS Examination

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS	Total marks allocated to 2 <sup>nd</sup> MBBS
MCQ	60	20	
SEQ	06	24	
Gross Anatomy spot	40	26	
Histology spot	10	10	
Viva- voce	7 minutes	10	
Total contribution to 2 <sup>nd</sup> MBBS examination			90
Continuous Assessment contribution			10
Total marks			100

### 2<sup>nd</sup> MBBS Supplementary Examination

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS	Total marks allocated to 2 <sup>nd</sup> MBBS
MCQ	60	25	
SEQ	6	25	
Gross Anatomy spot	40	30	
Histology spot	10	10	
Viva-voce	7 minutes	10	
Total marks			100





## Recommended textbooks

- Cunningham's Manual of Practical Anatomy (i-iii)  
Romanes GJ  
(Latest edition)
- Clinical Anatomy  
Ellis H  
(Latest edition)
- Lasts Human Anatomy: Regional and Applied  
Chummy S Sinnatamby  
(Latest edition)
- Clinical Neuroanatomy for Medical Students  
Snell RS  
(Latest edition)
- Wheater's Functional Histology  
Young B, Lowe J, Stevens A, Heath J. &  
Deakin P (Latest edition)
- Langman's Medical Embryology  
Sadler TW  
(Latest edition)

## Supplementary Reading:

- Grey's Anatomy for Students  
Richard L Drake, A Wayne Vogl and Adam WM Micheal  
(Latest edition)
- An Introduction to Medical  
Genetics Roberts JAF  
(Latest edition)
- Grants atlas  
Ann MR Agur and Arthur F  
Dally (Latest edition)
- McMinns Clinical Atlas of Human Anatomy  
Peter H Abrahams  
(Latest edition)



## **BIOCHEMISTRY**

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**Duration of the course:** 3 semesters

Biochemistry is the study of the chemical basis of life; in other words the chemistry of the living organism. A living organism is a collection of non-living molecules such as carbohydrates, lipids, proteins etc. and ions such as calcium, magnesium, zinc etc. Within the “body” of the organism, these non-living molecules and ions interact with one another in an organized and orderly manner to convert this “body” into a “living organism”. The study of these biomolecules and their interactions is Biochemistry. Biochemistry is the understanding of the chemical processes associated with “living” at the molecular level.

A study of these interactions under “normal” circumstances helps the student to understand “healthy” life. However, occasionally there are defects in these interactions brought about either due to genetic (hereditary) reasons or effects of environmental factors such as harmful chemicals or radiation. Such defects lead to disease. Some of them can be cured while others are terminal, leading to death. Knowledge of these defects enables the student to understand the reasons behind diseases. It also helps scientists to think of ways of correcting these defects.

This course is designed to cover the aspects of biochemistry relevant to medicine. A good knowledge of biochemistry enables a student to understand normal healthy life and disease at molecular level.



## Intended Learning Outcomes

On completion of this course the student will

1. Have a basic overall knowledge of the important biomolecules found in the human body and their importance for health.
2. Understand the basic metabolic pathways and their regulation to explain their role in life and how errors in them lead to disease.
3. Understand the biochemical principles behind common tests used in diagnostics and be able to explain the abnormalities seen in laboratory reports in biochemical terms.
4. Have a basic knowledge of the principles of human nutrition, nutritional requirements and common human nutritional deficiency diseases.
5. Understand the basic principles for planning a suitable healthy diet for normal, obese and diabetic persons.
6. Have a basic knowledge of the applications of molecular techniques in disease diagnosis and therapeutics.



## The Academic Programme

Subject area	Teaching/ learning method	Semester
<b>Cell structure and Function</b>	Lectures – 2 hours Tutorials – 1 hours	1
<b>pH and buffers</b>	Lectures – 2 hours Tutorials – 1 hour Practical Classes – 3 hours	1
<b>Carbohydrates</b>	Lectures – 5 hours Tutorials – 1 hour Practical Classes – 3 hours	1
<b>Proteins</b>	Lectures – 5 hours Tutorials – 2 hours Practical classes – 3 hours	1
<b>Enzymes &amp; Inhibition</b>	Lectures – 3 hour Tutorials – 1 hour Practical classes – 3 hours	1
<b>Lipids</b>	Lectures – 4 hours Tutorials – 1 hour Practical classes – 3 hours	1
<b>Nucleic acids</b>	Lectures – 4 hours Tutorials – 1 hour Practical classes – 3 hours	1
<b>Information transfer</b>	Lectures – 3 hours Tutorials – 1 hour	1
<b>Haemoglobin</b>	Lectures – 5 hours Tutorials – 1 hour Practical classes – 3 hours	1
<b>Free radicals and antioxidants</b>	Lectures – 1 hour	1
<b>Digestion &amp; absorption</b>	Lectures – 2 hours Tutorials – 1 hour	1
<b>Carbohydrate metabolism</b>	Lectures – 7 hours Tutorials – 2 hours Practical classes – 3 hours	2



<b>Respiratory chain and oxidative phosphorylation</b>	Lectures - 1 hour	2
<b>Protein metabolism</b>	Lectures - 4 hours Tutorials - 1 hour Practical classes - 3 hours	2
<b>Lipid metabolism</b>	Lectures - 7 hours Tutorials - 2 hours Practical classes - 3 hours	2
<b>Bilirubin metabolism</b>	Lectures - 3 hours Tutorials - 1 hour Practical classes - 3 hours	2
<b>Nucleic acid metabolism</b>	Lectures - 4 hours Tutorials - 1 hour	2
<b>Integration of metabolism</b>	Lectures - 2 hours	2
<b>Diabetes mellitus</b>	Lectures - 3 hours Tutorials - 1 hour	2
<b>Liver metabolism</b>	Lectures - 3 hours Tutorials - 1 hour	2
<b>Inborn errors of metabolism</b>	Lectures - 3 hours Tutorials - 1 hour	2
<b>Molecular techniques in medicine</b>	Lectures - 5 hours Tutorials - 1 hour Practical classes - 3 hours	2
<b>Micronutrients</b>	Lectures - 3 hours Tutorials - 1 hour	2
<b>Foods and diets</b>	Lectures - 4 hours Tutorials - 1 hour Practical classes - 3 hours	3
<b>Principles of nutrition</b>	Lectures - 7 hours Tutorials - 1 hour Practical classes - 3 hours	3



<b>Vitamins</b>	Lectures - 5 hours Tutorials - 2 hours Practical classes - 3 hours	3
<b>Hormone action</b>	Lectures - 4 hours Tutorials - 1 hour	3
<b>Basic clinical biochemistry</b>	Lectures - 10 hours Tutorials - 5 hour Practical classes - 3 hours	3
<b>Plasma proteins</b>	Lectures - 2 hours Tutorials - 1 hour	3
<b>Cancer &amp; aging</b>	Lectures - 2 hours Tutorials - 1 hour	3

### Assessments

Two continuous assessments will be held at the end of each semester. At the end of the 3<sup>rd</sup> semester the 2<sup>nd</sup> MBBS examination will be held.

### Continuous Assessments 1 & 2 (end of 1<sup>st</sup> and 2<sup>nd</sup> semester)

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS	Total marks allocated to 2 <sup>nd</sup> MBBS
MCQ	20	02	(2x2) 4
SEQ	02	02	(2x2) 4
Spots	05	01	(1x2) 2
<b>Total</b>			10

### Continuous Assessments 1 & 2 (Supplementary)

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS	Total marks allocated to 2 <sup>nd</sup> MBBS
SEQ	02	05	(5x2) 10
<b>Total</b>			10



## 2<sup>nd</sup> MBBS Examination

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS	Total marks allocated to 2 <sup>nd</sup> MBBS
MCQ	40	30	
SEQ	06	30	
Spots	20	20	
Viva-voce	7 minutes	10	
<b>Contribution to 2<sup>nd</sup> MBBS</b>			90
<b>Continuous Assessment contribution</b>			10
<b>Total marks</b>			<b>100</b>

## 2<sup>nd</sup> MBBS Supplementary Examination

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS	Total marks allocated to 2 <sup>nd</sup> MBBS
MCQ	40	35	
SEQ	06	35	
Spots	20	20	
Viva-voce	7 minutes	10	
<b>Total marks</b>			<b>100</b>

### Recommended text books:

- Lippincott's Illustrated Reviews Biochemistry  
Harvey RA (ed)  
7<sup>th</sup> edition, 2017,  
Lippincott Williams & Wilkins, Philadelphia.
- Harper's Illustrated Biochemistry  
Murray R, Rodwell V, Bender D, Botham KM, Weil AP,  
Kennelly PJ  
31<sup>st</sup> edition, 2018  
McGraw - Hill Medical, New York.



- Nutrition through the lifecycle  
Wickramanyake TW
- Textbook of Biochemistry with Clinical Correlations,  
Devlin TM  
7<sup>th</sup> edition, 2011  
John Wiley & Sons, New York.





## **PHYSIOLOGY**

**Duration of the course:** 3 semesters

The subject of human physiology is - the study of the function of the human body – is fundamental to the study of medicine.

Physiology is the study of the function of the human body. It is the dynamic interplay of processes that keep the body in 'normal' function. It is the study of the processes that are involved in the interaction between the 'external' environment and the 'internal' environment of the body. For convenience we will be studying our body in a system-based approach separating, for instance the cardiovascular system from the respiratory system. The maintenance of the natural equilibrium of our body is learnt by understanding the process of homeostasis.

### **Intended Learning Outcomes**

At the end of the course in Physiology the student should be able to

1. Acquire the knowledge related to the normal function of the human body.
2. Describe the pathophysiological basis of disordered functions of the human body.
3. Acquire the necessary practical skills relevant to human physiology at the preclinical level.
4. Critically analyse the physiological concepts in health and their derangements in disease.



## The Academic Programme

Subject Area	Teaching/ Learning Method	Semester
<b>Biological measurements, Introduction to statistics, cell communication</b>	Lectures - 47 hours Practical classes - 2 hours	1
<b>Body fluids and Homeostasis,</b>	Lectures - 4 hours Tutorials/ SGD - 2 hours Practical classes - 2 hours	1
<b>Introduction to the Autonomic Nervous System, Excitable tissues</b>	Lectures - 4 hours Tutorials/ SGD - 2 hours	1
<b>Blood and Immunity</b>	Lectures - 12 hours Tutorials/ SGD - 4 hours Practical classes - 6 hours	1
<b>Cardiovascular Physiology</b>	Lectures - 23 hours Tutorials/ SGD - 8 hours Practical classes - 6 hours	1
<b>Respiratory Physiology</b>	Lectures - 18 hours Tutorial/ SGD - 6 hours Practical classes - 4 hours	1
<b>Gastrointestinal Physiology</b>	Lectures - 20 hours Tutorial/ SGD - 4 hours Practical classes - 4 hours	2
<b>Renal Physiology</b>	Lectures - 12 hours Tutorial/ SGD - 4 hours Practical classes - 4 hours	2
<b>Endocrine Physiology</b>	Lectures - 15 hours Tutorial/ SGD - 4 hours Practical class - 2 hours	2
<b>Reproductive Physiology</b>	Lectures - 15 hours Tutorial/ SGD - 2 hours Practical classes - 3 hours	2
<b>Neurophysiology</b>	Lectures - 41 hours Tutorial/ SGD - 6 hours Practical classes - 12 hour	3
<b>Miscellaneous</b>	Lectures - 2 hours	3



## Assessments

Two continuous assessments will be held at the end of the 1<sup>st</sup> and 2<sup>nd</sup> semesters. At the end of the 3<sup>rd</sup> semester the 2<sup>nd</sup> MBBS examination will be held.

### Continuous Assessment 1 (end of 1<sup>st</sup> semester)

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS
BRQs + MRQs	5 + 15	3
SEQs	2	3
OSPE	10	2
<b>Total</b>		<b>8</b>

### In-Course Assessment 2 (end of 2<sup>nd</sup> semester)

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS
BRQs + MRQs	5 + 15	5
SEQs	2	5
OSPE	10	2
<b>Total</b>		<b>12</b>

## Supplementary Assessments

### In-Course Assessment 1

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS
MRQs	15	8
<b>Total</b>		<b>8</b>



## In-Course Assessment 2

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS
MRQs	15	12
<b>Total</b>		<b>12</b>

## 2<sup>nd</sup> MBBS Examination

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS	Total marks allocated to 2 <sup>nd</sup> MBBS
BRQs	10	25	
MRQs	40		
SEQs	5	25	
OSPE	25	20	
Viva voce	10 minutes	10	
			80
<b>In-Course Assessment contribution</b>			<b>20</b>
<b>Total marks</b>			<b>100</b>

## 2<sup>nd</sup> MBBS Supplementary Examination

Method of Assessment	No of questions	Marks allocated to 2 <sup>nd</sup> MBBS	Total marks allocated to 2 <sup>nd</sup> MBBS
BRQs	10	30	
MRQs	40		
SEQs	5	30	
OSPE	25	30	
Viva voce	10 minutes	10	
<b>Total marks</b>			<b>100</b>



### **Recommended textbooks:**

- Ganong's Review of Medical Physiology, Barrett KE, Barman SM, Boitano S, Heddwen BL  
24<sup>th</sup> edition 2012 or latest edition,  
McGraw- Hill. New York.
- Textbook of Medical Physiology,  
Guyton AC and Hall JE,  
Latest edition,  
Elsevier Science Health science division.  
Philadelphia.
- Hutchinson's Clinical Methods, Glynn M, Drake W (eds)  
23<sup>rd</sup> edition, 2012, or Latest edition Saunders Ltd,  
Philadelphia.



## THE PARA-CLINICAL SCIENCES

The Department of Para-clinical Sciences is one of the three departments of the Faculty of Medicine. The students who successfully complete the Second MBBS examination will study the Para-clinical Sciences subjects from the 4<sup>th</sup> to 7<sup>th</sup> semesters. The subjects of Microbiology and Parasitology are taught in semesters 4 and 5, the subjects Pharmacology, Pathology, Public Health and Family Medicine taught from semesters 4 to 7 and Forensic Medicine from Semesters 5 to 7. The department conducts two examinations, the third MBBS Part I and third MBBS Part II examinations at the end of semesters 5 and 7 respectively. Microbiology and Parasitology will be assessed at the end of the 5<sup>th</sup> semester and the remaining subjects will be assessed at the end of the 7<sup>th</sup> semester.

To pass each of the subject examinations, the student should score a minimum of 45% in the theory component and obtain a minimum aggregate of 50% for the whole subject. A candidate obtaining 70% or more in a subject in the first attempt will be awarded a distinction pass in that subject.

## MICROBIOLOGY

**Duration of Course:** 2 semesters

Microbiology is the study of microorganisms (bacteria, fungi and viruses) and the infectious diseases caused by them. During this course, the students will learn about infectious diseases including organisms, transmission of infection, diagnosis, antimicrobial treatment and prevention. The learning of Microbiology should go hand in hand with clinical work in the hospital wards. The students should be able to relate the knowledge learnt in the classroom to cases of infectious diseases that are seen and discussed in the wards.

Students will have a total of 2 - 3 hours of contact time per week with the staff. These are distributed among the various teaching learning activities such as lectures, tutorials, and laboratory practical training and demonstrations.



In the 4<sup>th</sup> semester the students will learn in general microbiology the structure and function of bacteria, virulence factors and host parasite relationship in health and disease. In immunology, about the immunity to infections and abnormal immune responses. In bacteriology students will learn about common bacteria that cause infections, how they are transmitted, clinical manifestations, how they are diagnosed and treated.

In the 5<sup>th</sup> semester, students will learn of viral and fungal infections, infections of systems (eg. Respiratory, urinary tract infections etc.) and how they are diagnosed and treated.

### **Intended Learning Outcomes**

At the end of the course in Medical Microbiology the student should be able to:

1. Describe the pathogenic microorganisms that are commonly encountered (bacteria, viruses and fungi) and their habitats, routes of transmission, pathogenesis of infections and clinical signs and symptoms of the infections.
2. Select appropriate antimicrobial agents that can be used in treatment and in prophylaxis of infectious diseases.
3. Describe briefly the microbiological diagnosis of infectious diseases including appropriate laboratory tests.
4. Advise on collection and transport of specimens for microbiological investigations.
5. Explain measures that can be taken for the prevention and control of infectious diseases including immunization.
6. Select the antiseptics, disinfectants and sterilizing agents appropriate for use in patient care and in the laboratory.
7. Explain the basic principles of infection prevention and control in the hospital and hospital acquired infections.



## The Academic Programme

Subject Area	Teaching/Learning Method	Semester
<b>General Microbiology</b>	Lectures - 3 hours Tutorials - 1 hour Practical classes - 2 hours	4
<b>Disinfection and Sterilization</b>	Lectures - 45 min Tutorials/ Practical Classes - 45 min	1.5
<b>Immunology</b>	Lectures - 6 hours Tutorials - 1 hours	4
<b>Bacteriology</b>	Lectures - 17 hours Tutorials - 3 hours Practical Classes - 5 hours	4
<b>Antibiotics</b>	Lectures - 2 hours Tutorials - 1 hours	4
<b>Virology</b>	Lectures - 14 hours Tutorials - 3 hours Practical Classes - 2 hours	5
<b>Mycology</b>	Lectures - 2 hours Tutorials - 1 hours Practical Classes - 2 hours	5
<b>Systemic Infections</b>	Lectures - 14 hours Tutorials - 4 hours Practical Classes - 8 hours	5
<b>Work shop on Basic principles on Infection prevention and control in the hospital</b>	2.5 hours	2.5





## Assessments

Assessments will constitute of one continuous assessment at the end of 4<sup>th</sup> semester which will carry a total of 20% marks to the 3<sup>rd</sup> MBBS part 1 examination which will be conducted at the end of the 5<sup>th</sup> semester.

### Continuous Assessment 1

Method of assessment	Number of questions	Marks allocated	Total
MCQ 15 + BRQ 5	20	10	
OSPE	10	10	
			20

### Continuous Assessment 2

Method of Assessment	Number of questions	Marks allocated	Total
MCQ 15 + BRQ 5	20	5	
			5

### 3<sup>rd</sup> MBBS Part 1 Examination

Method of assessment	Number of questions	Marks allocated	Total
Structured Essay Questions (SEQ)	04	30	
MCQ 24 + BRQ 6	30	25	
OSPE (3min ech)	20	20	
Viva (8min)		05	
			80
CAT 1			20
			100



## Recommended text books

1. Medical Microbiology by David Greenwood, Richard C.B. Slack & John F. Peutherer. 19<sup>th</sup> Edition. Churchill Livingstone
2. Mim's Medical Microbiology by Richard Goering, Hazel Dockrell, Mark Zuckerman, Derek Wakelin, Ivan Roitt, Cedreic Mims. 5th Edition, Mosby Elsevier
3. Basic Immunology, Functions and Disorders of the Immune System, Abul Abbas Andrew Lichtman Shiv Pillai, 6th Edition
4. Cellular and Molecular Immunology by Abbas AK, Lichtman AH. 8th Edition, Saunders Publishing



## **PARASITOLOGY**

**Duration of the course:** 2 semesters

The Parasitology course primarily teaches about human parasites and the diseases caused by them. The main objective of the course is to acquire basic knowledge and skills to identify, diagnose, manage, prevent and control parasitic diseases found mainly in Sri Lanka. During the course students will learn about the parasites as disease causing agents, their prevalence and geographical distribution, basic morphology, life cycle, modes of transmission, vectors, pathology and clinical symptoms of the diseases, collection of specimens and diagnosis of the parasitic diseases, basic management steps of the patients, anti-parasitic drugs that can be used effectively in treatment, prevention and control of the parasitic diseases. Further, students will learn about arthropod vectors that are capable of transmitting parasitic diseases to humans and parasitic zoonoses. In addition to the parasitic diseases, during the course students will learn particularly about venomous snakes in Sri Lanka, their identification and management of snakebites.

### **Intended Learning Outcomes**

At the end of the programme of study, the medical student would be able to;

1. (a) Acquire knowledge and develop skills to diagnose and treat the parasitic diseases commonly found in Sri Lanka.  
  
(b) Educate the general public regarding the preventive measures of the above diseases.
2. Be aware of other medically important parasitic diseases in the world and possibility of these immigrating in Sri Lanka.
3. To have some understanding of the economic loss in a country which could be brought about by widespread parasitic disease.
4. Acquire knowledge about parasitic infections in the immunocompromised patient.



5. Acquire knowledge about medically important arthropods and their control with special reference to disease in Sri Lanka caused or transmitted by these arthropods.
6. (a) Be skilled in identification of poisonous snakes found in Sri Lanka and the clinical manifestations resulting from bites by them, and the management of such patients.  
  
(b) Be able to recognize common non -poisonous snakes found in Sri Lanka specially the ones which mimic the poisonous snakes.

### The Academic Programme

Subject Area	Teaching/ Learning Method	Semester
<b>Intestinal and tissue nematodes</b>	Lectures - 20 hours Tutorials/ SGD - 3 hours Practical classes - 9 hours	4
<b>Intestinal protozoans</b>	Lectures - 5 hours Tutorials/ SGD - 1 hour Practical classes - 3 hours	4
<b>Blood and tissue protozoans</b>	Lectures - 13 hours Tutorials/ SGD - 4 hours Practical classes - 6 hours	4 & 5
<b>Cestodes and Trematodes</b>	Lectures - 7 hours Tutorials/ SGD - 2 hours Practical classes- 2 hours	5
<b>Medically important arthropod vectors/ Entomology</b>	Lectures - 8 hours Tutorials - 1 hour Practical classes - 3 hours	5
<b>Parasitic Zoonoses</b>	Lectures - 2 hours Tutorials - 1 hour	5
<b>Medically important Snakes of Sri Lanka</b>	Lectures - 3 hours Tutorials - 1 hour Practical classes - 2 hours	5



## Assessments

One continuous assessment and the 3<sup>rd</sup> MBBS Part I examination will be conducted. Three components of the continuous assessment will be held at the end of the 4<sup>th</sup> and middle of the 5<sup>th</sup> semesters. 3<sup>rd</sup> MBBS Part 1 examination will be conducted at the end of 5<sup>th</sup> semester.

### Continuous Assessment 1

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS
15 MCQs (True / False type) + 05 BRQs Best Response type)*	20	10
Practical 1* - examination of faeces	01	05
Practical 2** - Blood smear examination for malaria parasites	02	05
<b>Total</b>		<b>20</b>

\* Components will be held at the end of the 4<sup>th</sup> semester

\* Component will be held at the middle of the 5<sup>th</sup> semester

### Third MBBS part 1 Examination

Method of assessment	Number of questions	Marks allocated to 3 <sup>rd</sup> MBBS Part 1
MCQs 24 + BRQs 06	30	25
SEQs (Short Essay Questions)	04	30
OSPE (02 min each)	20	20
Viva (8 min)		05
<b>Total</b>		<b>80</b>
<b>Contribution form continuous assessment</b>		<b>20</b>
<b>Total</b>		<b>100</b>



### Supplementary Examination for Continuous Assessment

Method of assessment	Number of questions	Marks allocated to 3 <sup>rd</sup> MBBS Part 1
Viva (10 min)		10
Practical 1 - examination of faeces	01	05
Practical 2 - Blood smear examination for malaria parasites	02	05
<b>Total</b>		<b>20</b>

### Supplementary examination for 3<sup>rd</sup> MBBS Part 1 exam

Method of assessment	Number of questions	Marks allocated
MCQs 24 + BRQs 06	30	35
SEQs (Short Essay Questions)	04	40
OSPE (02 min each)	20	20
Viva (8 min)		05
<b>Total</b>		<b>100</b>

#### Recommended textbooks:

- Manson's Tropical Diseases  
Edited by GC Cook and Al Zumia
- Medical Parasitology  
DR Arora, BrijBala Arora



- Parasites of Man  
SJ Edirisinghe
- Basic Clinical Parasitology  
FV Neva and HW Brown
- Lecture Notes on Medical Entomology  
MW Service
- Website of the Centre for Disease Control and Prevention  
[www.cdc.gov](http://www.cdc.gov)

### Supplementary Reading

- WHO publications: Technical Report Series
  - Lymphatic Filariasis
  - Parasitic zoonoses
  - Intestinal Protozoans & Helminthic infections
  - Management of acute malaria
  - Control of lymphatic filariasis
  - Hookworm infection and anaemia
  - Drugs used in Parasitic Diseases
- Publications and technical reports by the Anti-Malaria Campaign, Anti Filariasis Campaign Dengue Control Unit and Epidemiology Unit of the Ministry of health. Sri Lanka.
- Entomology for Students of Medicine  
RM Gordon and MMJ Lavoipierre
- Atlas of Medical Helminthology & Protozoology  
HC Jeffrey and H Crozier
- Worms and Human Disease  
R Muller



## **FORENSIC MEDICINE AND TOXICOLOGY**

**Duration of Course:** 3 Semesters

Forensic medicine is one of the oldest and independent streams of medical practice. The terms Forensic medicine, Legal medicine, Medical Jurisprudence, are of almost similar meaning, and interchangeably used to introduce different angles of the discipline. The main function of forensic medicine is to fulfill medical needs of the legal system in the country by filling the gap between medicine and the law. However, one should understand that forensic medicine is based on research and scientific advancements whereas, law is a social art which reflects and controls accepted norms of the social order specific to particular socio-political system at a given time. The subject areas of forensic medicine consist of clinical forensic medicine, forensic pathology, forensic science, forensic anthropology, law and ethics etc.

This course aims at providing students with the knowledge to undertake medico-legal responsibilities in the practice of medicine and also includes criminology and its related medico-legal problems. The knowledge of the law in relation to medical practice, medical negligence and a course on medical ethics is also included.

### **Intended Learning Outcomes**

At the end of the course, the students shall be able to:

1. Identify the basic concepts of medico-legal practice pertaining to health and defense services of the Sri Lanka.
2. Make observations and interpret findings at post mortem examinations and clinical forensic investigations covering vast spectrum of cases of medico-legal interest including mechanical trauma, intoxications, occupational hazards, sexual crimes and natural diseases.
3. Complete relevant medico-legal reports including post mortem report, medico legal examination form, medico-legal report etc. and submit them to law enforcement authorities.
4. Observe and practice the principles of medical ethics in the practice of the medical profession.





5. Display the personal attributes of compassion, honesty, and integrity in relationships with patients-victims, police, judiciary, colleagues, families, communities and the medical profession.
6. Exhibit a capacity for self-evaluation, moral reflection and ethical reasoning to form the basis for a self-directed, lifelong engagement in the profession.

### The Academic Programme

<b>Subject Area</b>	<b>Teaching/Learning Method</b>	<b>Semester</b>
<b>Legal and ethical aspects of medical practice.</b>	Lectures - 12 hours Tutorials - 2 hours	5
<b>Introduction to forensic medicine and mechanical injuries / injury patterns</b>	Lectures - 14 hours Tutorials - 2 hours Demonstrations - 3 hours	5
<b>Toxicology [Agrochemicals, plant poisons, heavy metals, snake bites, narcotics]</b>	Lectures - 14 hours Tutorials - 1 hour Demonstrations - 1 hour	5/6
<b>Deaths due to asphyxia, mechanical trauma and natural causes, and its medico-legal importance</b>	Lectures - 20 hours Tutorials - 2 hours Demonstrations - 2 hour	6
<b>Sexual offences, child abuse, RTA, maternal deaths and infanticide</b>	Lectures - 18 hours Tutorials - 2 hour Demonstrations- 4 hours	7
<b>Clinical training</b>	2 weeks	6/7



## Assessments

Continuous Assessments 1 & 2 (Semesters 5 and 6), clinical forensic medicine evaluation (Semester 7)

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS
MCQ & BRQ	(16 : 4) 20	(5 x 2) 10
Completion of medico legal reports of clinical cases [MLEF and MLR]		10

### 3<sup>rd</sup> MBBS Part 2 Examination

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS	Total marks allocated to 3 <sup>rd</sup> MBBS
MCQ & BRQ	(32+8) 40	30	
SEQs	4	30	
OSPE		10	
Viva		10	
Contribution to 3 <sup>rd</sup> MBBS			80
Continuous Assessment and medicolegal report/ clinical contribution			20
Total marks			100

### 3<sup>rd</sup> MBBS Part 2 Supplementary Examination

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS	Total marks allocated to 3 <sup>rd</sup> MBBS
MCQ & SBR	(32+8) 40	30	
SEQs	4	40	
OSPE	10	20	
Viva		10	
Total marks			100



### **Recommended textbooks:**

- Simpson's Forensic Medicine  
Payne-James J, Jones R,  
Karch S, Manlove J  
13<sup>th</sup> edition, 2011  
Hodder Arnold Publishers, London.
- Essentials of Forensic Medicine and Toxicology  
Reddy KS Narayan  
2015, Sugunadevi Publishers, India
- Clinical Forensic Medicine MacLay WD (ed)  
2<sup>nd</sup> edition, 1996,  
Cambridge University Press, Cambridge.

### **Supplementary Reading**

- Knights Forensic Pathology Pekka S,  
Knight B 3<sup>rd</sup> Edition,  
2013 Arnold, London
- Lecture Notes in Forensic Medicine (Volume I - iv)  
De Alwis LBL
- Management of Poisoning,  
Fernando R.  
1998  
National Poisons Information Centre, Colombo.
- Revision Guide in Forensic Medicine  
PR Ruwanpura  
2015, KDU



## PATHOLOGY

**Duration of the course:** 4 semesters

Pathology is the scientific study of disease. It is a field that bridges clinical practice with the basic sciences. Pathology encompasses a wide subject area and is therefore sub categorized into the disciplines of histopathology, hematology and chemical pathology.

Histopathology is the study of the macroscopic and microscopic changes in diseased tissue. Hematology deals with the study of the components of blood, their functions and related disorders. Chemical pathology deals with biochemical changes in blood and body fluids (electrolytes, enzymes and proteins etc.) and its association.

During the 4<sup>th</sup> semester, students will start histopathology with general and tumour pathology. General pathology is concerned with the basic reactions of cells and tissues to abnormal stimuli that underlie all diseases. Tumour pathology will introduce the student to the study of tumour characteristics, its clinical manifestations and investigations. They will also get a brief overview of carcinogenesis.

During the 5<sup>th</sup> semester students will start and complete chemical pathology and start systemic pathology with the respiratory and cardiovascular systems.

The 6<sup>th</sup> semester will comprise all the lectures scheduled for hematology and a continuation of the lectures on systemic pathology.

During the 7<sup>th</sup> semester students will complete their lectures on the remaining organ systems.



## The Academic Programme

Subject Area	Teaching/ Learning Method	Semester
<b>General Pathology</b>	Lectures – 20 hours Tutorials/ SGD – 4 hours Practicals – 5 hours	4
<b>Tumour Pathology</b>	Lectures – 10 hours Tutorials/ SGD – 2 hour Practicals – 2 hours	4
<b>Chemical Pathology</b>	Lectures – 10 hours Tutorials/ SGD – 1 hour Practicals- 5 hours	5
<b>Respiratory Pathology</b>	Lectures – 8 hours Tutorials – 1 hour Practicals – 2 hours	5
<b>Cardiovascular Pathology</b>	Lectures – 8 hours Tutorials – 1 hour Practicals – 2 hours	5
<b>Hematology</b>	Lectures – 15 hours Tutorials – 1 hour Practicals- 5 hours	6
<b>Gastrointestinal Pathology</b>	Lectures – 8 hours Tutorials – 1 hour Practicals – 2 hour	6
<b>Hepatobiliary Pathology</b>	Lectures – 6 hours Tutorials – 1 hour Practicals – 1 hour	6
<b>Pathology of the Reticulo-endothelial System</b>	Lectures – 2 hours	6
<b>Bone Pathology</b>	Lectures – 2 hours	7
<b>Breast Pathology</b>	Lectures – 2 hours Tutorials – 1 hour Practicals – 1 hours	7
<b>Thyroid Pathology</b>	Lectures – 2 hours Tutorials – 1 hour Practicals – 1 hour	7
<b>Pathology of the Female Genital Tract</b>	Lectures – 4 hours Tutorials – 1 hour Practicals – 1 hour	7



Subject Area	Teaching/Learning Method	Semester
<b>Pathology of the Male Genital Tract</b>	Lectures – 1 hour Practicals – 1 hour	7
<b>Renal Pathology</b>	Lectures – 6 hours Tutorials – 1 hour Practicals – 1 hours	7
<b>Pathology of the Central Nervous System</b>	Lectures – 4 hours Tutorials – 1 hour Practicals – 1 hour	7
<b>Clinical Pathology</b>	Histopathology - 1 week Chemical Pathology - 1 week Haematology - 1 week Blood Bank - 1 week	Appointments will be scheduled within the 6 <sup>th</sup> and 7 <sup>th</sup> semester.

## Intended Learning

### Histopathology

The student should be able to:

1. Demonstrate a disease related vocabulary.
2. Describe the different cellular responses to injury and stress.
3. Describe the morphological changes in tissues associated with disease processes.
4. Explain the relationship between altered morphology and abnormal function.
5. Describe the characteristics of benign and malignant neoplasms.
6. Explain the basic steps in carcinogenesis.
7. List the types of specimen sent to the histopathology laboratory.
8. Describe the procedure involved in sending different specimens to the histopathology laboratory.
9. Explain the clinical significance of cytopathology and histopathology tests used in the diagnosis and management of systemic disorders.



## **Chemical Pathology**

The student should be able to:

1. Explain the pathological basis of biochemical alterations observed in plasma and body fluids in common systemic disorders.
2. Select appropriate biochemical investigations to confirm the diagnosis of diseases and monitor management where applicable.
3. Describe the principles of test requisition, patient preparation, sample collection and transport requirements related to common general and specialized biochemical investigations
4. Interpret the results of biochemical tests, in the context of the overall clinical picture of the patient.

## **Haematology**

The student should be able to

1. Describe the inherited and acquired mechanisms of disease processes involving the cellular components (red cells, white cells, platelets) and plasma components of blood.
2. Describe inherited and acquired mechanisms of diseases related to the coagulation system.
3. Describe the principles of test requisition, patient preparation, sample collection and transport requirements for haematological and blood bank investigations.
4. Describe the common diagnostic tests done in the haematology and blood bank laboratories.
5. Interpret the results of haematological and blood bank tests, in the context of the overall clinical picture of the patient.
6. Outline management of common haematological disorders pertaining to red cells, white cells, platelets, coagulation and transfusion.
7. Briefly discuss about blood products its therapeutic applications and blood donation.
8. Describe stem cell and organ transplantation and relevance of Human Histocompatibility Antigen system.



## Assessments

Three continuous assessments will be held at the end of semester 4, 5 and 6. At the end of the 7<sup>th</sup> semester the 3<sup>rd</sup> MBBS part 2 Examination will be held.

### Continuous Assessments 1, 2 and 3

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS	Total marks allocated to 3 <sup>rd</sup> MBBS
MCQ + BRQ	(15+5) 20	5	
<b>Total</b>			<b>(3X5) 15</b>

### 3<sup>rd</sup> MBBS Part 2 Examination

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS	Total marks allocated to 3 <sup>rd</sup> MBBS
MCQ & BRQ	(32+8) 40	20	
SEQs	4	40	

### 3<sup>rd</sup> MBBS Part 2 Supplementary Examination

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS	Total marks allocated to 3 <sup>rd</sup> MBBS
MCQ & SBR	(32+8) 40	30	
SEQ	4	40	
OSPE	15	20	
Viva		10	
<b>Total marks</b>			<b>100</b>





### Recommended textbooks:

- Basic Pathology  
Cotron R, Kumar V,  
Robbins SL 9<sup>th</sup> edition, 2012  
Saunders, Philadelphia.
- Essential Hematology  
Hoffbrand AV, Pettit JE & Moss  
PAH 6<sup>th</sup> edition, 2011  
Blackwell Publishing, Oxford.
- Clinical Chemistry  
Marshall WJ, Bangert  
SK 9<sup>th</sup> edition, 2004  
Mosby, Missouri.



## CLINICAL PHARMACOLOGY AND THERAPEUTICS

**Duration of course:** 4 semesters

Pharmacology comes from the Greek word *pharmacon* (drug) and *logia* (study) and provides the scientific basis of drug action at the cellular, biochemical and molecular level. Therapeutics links the combined knowledge of disease and how medicines (drugs) affect it. Doctors of all specialties prescribe medicines on a daily basis and this could be one of the most useful but also one of the most dangerous activities of a doctor.

Clinical pharmacology and therapeutics is an important part of the MBBS curriculum because understanding the principles of clinical pharmacology and therapeutics is important for safe, effective and rational prescribing.

The aim of the discipline of clinical pharmacology and therapeutics is to provide the core knowledge to link the interaction of medicines at the cellular, biochemical and physiological level to a range of beneficial and adverse effects seen in therapeutic use and to the skills to be fulfilled in the prescribing process.

### **Intended learning Outcomes:**

By the end of the course the student will

1. Have a sound understanding of the basic principles of clinical pharmacology.
2. Be able to link their knowledge of pharmacokinetics and pharmacodynamics to safe and effective prescribing both in the normal and special situations.
3. Have the knowledge to understand Essential therapeutic problems in the context of Sri Lanka.
4. Have the basic knowledge to recognize and explain adverse drug reactions, drug - drug, and food - drug interactions.
5. Understand the importance of the essential medicines list (EML), its specific uses and have the skill to select medicines for the EML.
6. Be aware of the processes and ethical issues involved in pharmaceutical research.



7. Be able to describe and explain the chemistry, pharmacokinetics, pharmacodynamics, clinical uses, side effects, cautions and contraindications of commonly used medicines in the EML.
8. Have the knowledge and skills in:
  - a) defining patient's problems (diagnosis);
  - b) defining effective and safe treatments (drug and non-drug treatments);
  - c) selecting the right medicine, at the right dose, by the right route, at the right time, for the right duration for the right person at the lowest cost to the person and the community
  - d) writing a clear prescription;
  - e) giving patients adequate information and counseling;
  - f) planning and evaluating treatment responses.

### The Academic programme

Subject Area	Teaching/ Learning Method	Semester
<b>General Pharmacology</b>	Lectures - 27 hours Tutorials/ SGD - 12 hours Fixed Learning Module - 4 hours	4
<b>Drugs affecting the Autonomic Nervous System</b>	Lectures - 3 hours Tutorials/ SGD - 2 hours	4
<b>Drugs affecting the Cardiovascular and Renal systems</b>	Lectures - 10 hours Tutorials/ SGD - 3 hours	4
<b>Drugs used in treatment of Respiratory Disorders</b>	Lectures - 3 hours Tutorials/ SGD - 2 hours Skills sessions - 2 hours	5
<b>Antimicrobial agents</b>	Lectures - 12 hours Tutorials/ SGD - 4 hours	5
<b>Drugs used in the treatment of Endocrine disease</b>	Lectures - 7 hours Tutorials - 5 hours Skills sessions - 2 hours	5
<b>Drugs affecting gastrointestinal function</b>	Lectures - 5 hours Tutorials - 2 hours	5
<b>Drugs affecting haematopoiesis and coagulation</b>	Lectures - 5 hours Tutorials - 2 hour	5



Subject Area	Teaching/ Learning Method	Semester
Drugs affecting the reproductive system	Lectures – 4 hours Tutorials – 2 hours	6
Drugs affecting the central nervous system	Lectures – 12 hours Tutorials – 6 hours	6
Drugs used in dermatology	Lectures – 2 hours	6
Drugs used in the treatment of disorders of the eye, ear, nose and throat	Lectures – 2 hours Tutorials/ SGD – 2 hours	6
Therapeutics	Lectures – 37 hours Tutorials – 8 hours	7

### Assessments

Three continuous assessments will be held at the end of semesters 4, 5 and 6. At the end of the 7<sup>th</sup> semester the 3<sup>rd</sup> MBBS part 2 Examination will be held.

### Continuous Assessment 1

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS	Total marks allocated to 3 <sup>rd</sup> MBBS
MCQ & SBR	(15 +5) 20	5	
SEQs	2	5	
<b>Total</b>			<b>10</b>

### Continuous Assessment 2 & 3

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS	Total marks allocated to 3 <sup>rd</sup> MBBS
MCQ & SBR	(15 +5) 20	2.5	
<b>Total</b>			<b>(2.5x2) 05</b>



### 3<sup>rd</sup> MBBS Part 2 Examination

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS	Total marks allocated to 3 <sup>rd</sup> MBBS
MCQ & SBR	(30+20) 50	40	
SEQs	4	30	
OSPE	10	15	
<b>Contribution to 3<sup>rd</sup> MBBS</b>			85
<b>Continuous Assessment contribution</b>			15
<b>Total marks</b>			<b>100</b>

### 3<sup>rd</sup> MBBS Part 2 Supplementary Examination

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS	Total marks allocated to 3 <sup>rd</sup> MBBS
MCQ & SBR	(30+20) 50	45	
SEQs	4	40	
OSPE	10	15	
<b>Total marks</b>			<b>100</b>

#### Recommended textbooks:

- Rang and Dale's Pharmacology  
Rang HP, Dale MM, Ritter JM,  
Flower RJ & Henderson G 7<sup>th</sup> edition, 2012  
Elsevier Churchill Livingstone, London.
- Clinical Pharmacology  
Bennett PN, Brown MJ, Sharma P  
11<sup>th</sup> edition, 2012  
Elsevier Churchill Livingstone, London.

### **Recommended reading for clinical attachments**

- British National Formulary. BMJ group and pharmaceutical Press. Latest Ed.
- Australian Prescriber

### **Supplementary reading**

- Goodman and Gilman's the Pharmacological basis of Therapeutics  
Katzung BG, Trevor J  
12<sup>th</sup> Edition, 2011  
McGraw Hill, New York
- Sri Lankan Prescriber



## PUBLIC HEALTH

**Duration of the course:** 4 semesters

The subject of Public Health is taught to the students in their third and fourth years. Public Health teaches the student the science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of individuals, communities, society and public and private organizations. Public Health maintains and improves health and well-being of the community and is concerned with protecting the health of entire populations.

The subject of Public Health, also known as community medicine teaches of epidemiology, biostatistics, primary health care, health education and behavior change communication, research methodology, healthcare delivery systems, demography, communicable and non-communicable disease epidemiology, maternal and child health, environmental and occupational health and sanitation, food hygiene, health promotion, behavioural sciences, medical sociology, medical anthropology, healthcare management, human nutrition, disaster management and health economics. The students do a clinical appointment, in public health a community attachment, a family attachment and a research project.

The emphasis on the community attachment is health promotion, community diagnosis and community mobilization. The emphasis on the family attachment is behaviour change initiatives mainly with regard to currently prevalent non-communicable diseases. The students are attached to the Medical Officer of Health (MOH) areas of Dehiwala – Mount Lavinia and Ratmalana for the community attachment and the family attachment. The MOH areas are considered as the field training areas of the KDU.

The student research project enables the students to engage in systematic and ethical research under the guidance of the academic staff members of the faculty. Students conduct their research in the field training area, in hospitals, at the KDU and at any other settings. During the 'clinical' attachment, the student learns about the health system and the supportive sectors, structures and services in Sri Lanka by visiting these places.



## **Intended learning Outcomes of the Public Health Programme**

At the end of the course the student should be able to:

1. Acquire knowledge, skills and attitudes to assess health status of communities and families and plan and implement appropriate promotive, preventive, curative, and rehabilitative measures within the social, religious, cultural and economic milieu in the community.
2. Communicate effectively with the community and health care team for health promotion and disease prevention in order to improve health and prevent disease.
3. Acquire knowledge, skills and attitudes to provide promotive, preventive, curative and rehabilitative care to fulfill the health needs of the individual, family and community with responsibility.
4. Apply the principles and concepts of epidemiology and statistics and carry out research, describe health issues, assess health status of the community and determine the effects of health interventions in the community.
5. Plan, conduct and report research using a scientific and systematic approach to develop skills of critical thinking, logical reasoning and appraisal of medical evidence.
6. Demonstrate qualities of a healthcare professional who applies ethical principles in public health practice, in conducting research and in one's personal life.
7. Develop commitment to teach health professionals, educate the family and community to promote health and prevent disease.
8. Acquire knowledge of the health care delivery system in Sri Lanka, public health control programmes and the relevant legal framework.
9. Develop appropriate attitudes towards personal and professional development through reflective practice and life-long learning.





## The Academic Programme

Subject Area	Teaching/ Learning Method	Semester
<b>Epidemiology</b>	Lectures – 19 hours Tutorials/ SGD – 8 hours	4,5
<b>Biostatistics</b>	Lectures – 14 hours Tutorials/ SGD – 3 hours	4,5
<b>Healthcare delivery systems</b>	Lectures – 8 hours Tutorials/ SGD – 2 hours	4,5
<b>Demography</b>	Lectures – 6 hours Tutorials/ SGD – 2 hours	5
<b>Communicable and non-communicable disease epidemiology, Public Health Control Programmes of the Ministry of Health</b>	Lectures – 40 hours Tutorials/ SGD – 6 hours	5
<b>Maternal and child health</b>	Lectures – 12 hours Tutorials – 4 hours	6
<b>Environmental and occupational health, Sanitation</b>	Lectures – 12 hours Tutorials – 3 hours	6
<b>Health education, Health promotion and Behaviour Change Communication</b>	Lectures – 12 hours Tutorials – 4 hours	5,6
<b>Healthcare management</b>	Lectures – 6 hours Tutorials/ SGD – 2 hours	7
<b>Public Health Nutrition</b>	Lectures – 8 hours Tutorials/ SGD – 2 hours	7
<b>Clinical appointment</b>	80 hours (4 weeks)	6
<b>Family attachment</b>	45 hours	6,7
<b>Community attachment</b>	45 hours	6,7
<b>Research Project</b>	45 hours	6,7



Subject Area	Teaching/ Learning Method	Semester
Family medicine	Lectures- 15 hours SGD - 10 hours	6, 7
Clinical appointment: Family Practice/ GP attachment	40 hours (2 weeks)	6, 7

### Assessments

Three continuous assessments will be held at the end of semesters 4, 5 and 6. At the end of the 7<sup>th</sup> semester, the 3<sup>rd</sup> MBBS Part II examination will be held.

### Continuous Assessments 1, 2 and 3

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS	Total marks allocated to 3 <sup>rd</sup> MBBS
SEQ	2	5	
<b>Total</b>			<b>(3X5) 15</b>

### 3<sup>rd</sup> MBBS Part 2 Supplementary Examination

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS	Total marks allocated to 3 <sup>rd</sup> MBBS
MCQ & SBR	(32+8) 40	30	
SEQ	5	40	
OSPE		20	
Main Viva		10	
<b>Total marks</b>			<b>100</b>



### 3<sup>rd</sup> MBBS Part 2 Examination

Method of Assessment	No of questions	Marks allocated to 3 <sup>rd</sup> MBBS	Total marks allocated to 3 <sup>rd</sup> MBBS
MCQ & SBR	(32+8) 40	15	
SEQ	5	25	
Main Viva		10	
Research Project Report Viva		3 7	
OSCE/OSPE		10	
Community attachment Report Viva		2.5 5	
Family attachment Report Viva		2.5 5	
<b>Contribution to 3<sup>rd</sup> MBBS</b>			<b>85</b>
<b>Continuous Assessment contribution</b>			<b>15</b>
<b>Total marks</b>			<b>100</b>

#### Recommended textbooks:

In Public Health:

- Basic Epidemiology. Beaglehole R, Bonita R. & Kjellström T 2<sup>nd</sup> edition, 2006, World Health Organization.
- Park's Textbook of Preventive and Social Medicine. Park K 21<sup>st</sup> edition, 2011, Banarsidas Bhanot Publishers, Jabalpur.
- An Introduction to Medical Statistics. Bland M 3<sup>rd</sup> edition, 2000, Oxford University Press, Oxford
- Ageing population in Sri Lanka: Issues and future prospects. Siddhisena KAP. UNFPA and Population Association of Sri Lanka.



- Annual Health Bulletins, Ministry of Health, Colombo.
- Weekly Epidemiological Reports and Quarterly Epidemiological Bulletins, Epidemiology Unit, Colombo.
- Other booklets, circulars, leaflets etc of the units of Ministries of Health, Social Services, Environment, Labour etc, World Health Organisation, Sri Lanka Medical Association, UNFPA, UNICEF etc and their websites



## FAMILY MEDICINE

**Duration of the course:** 4 semesters

The subject of Family Medicine is taught to the students in their third and fourth years from the fifth to the seventh semester. The subject of Family Medicine teaches students how to apply the concepts and principles of Family Medicine in the management of patients at the level of primary care. Aim of the family medicine programme is to produce a medical graduate who could deliver person centred, family oriented, comprehensive medical care on a continuing basis at the primary care level, to the armed forces and their families as well as to people in the community.

Family Medicine or primary care medicine is the discipline that integrates biochemical, behavioural and social sciences to provide

Curative and preventive care while addressing physical, psychological and social problems irrespective of age, sex or type of illness. Family Medicine also includes coordination of care and continuity of care. These principles of family medicine/ primary care medicine that distinguishes it from other medical specialities are known to result in improved health outcomes. Classroom teaching as well as visits to private family practices in the community (Family Practice/ GP attachment) and other primary care settings in the state sector, will enable students care to learn how to deliver compassionate, person centred and family oriented care to individuals and families and the organization of primary medical care service to the community.

### **Intended Learning Outcomes of the Family Medicine Programme**

At the end of the programme of study, the student should be able to:

1. Describe the doctor-patient relationship and acquire communication skills to elicit biomedical and psychosocial issues to understand the patient's illness experience.
2. Use the patient-centred clinical method to take a focused history, carry out a relevant clinical examination, use selective investigations and institute a cost effective management plan after negotiating with the patient to ensure compliance.
3. Acquire problem solving skills to sort out minor self-limiting illnesses from potentially serious diseases.



4. Understand the psychological social, behavioural and cultural factors that influence a patient's illness behavior and presentation for care.
5. Have knowledge and understanding of family dynamics, the individual and family life cycle and factors that have an impact on the family in health and diseases.
6. Provide comprehensive curative and preventive care for common illness, non- communicable diseases, psychological problems and emergencies in the office, home or hospital.
7. Coordinate a patient's healthcare through appropriate referral to specialists and other health resources in the community.
8. Maintain medical records and provide continuity of care.
9. Have knowledge and skills to care for the elderly and to provide end of life care and bereavement care.
10. Have knowledge of ethical and legal issues in family practice.

### **The Academic Programme**

<b>Subject Area</b>	<b>Teaching/ Learning Method</b>	<b>Semester</b>
<b>Family Medicine</b>	Lectures - 25 hours SGD - 10 hours	5,6
<b>Family Practice/ GP Attachment</b>	2 weeks of clinical appointment	6,7

### **Assessments**

Continuous Assessment at end of Family Practice clinical appointment.

Summative Assessment at end of fourth year examination in Public Health and Family Medicine

- SEQ - 01
- OSCE/ OSPE - 3 stations

Relative weights of different components are 40% for Continuous Assessment, 40% for SEQ and 20% for OSCE/ OSPE.

Supplementary examination will include only the SEQ and the OSCE/ OSPE which will carry 70% and 30% of weightage respectively.



## **THE CLINICAL SCIENCES**

The student will study the clinical science subjects from 6<sup>th</sup> to 10<sup>th</sup> semesters. Clinical sciences include five main subjects including Clinical Medicine, Obstetrics and Gynaecology, Paediatrics, Psychiatry and Surgery. These subjects are the cornerstones of medicine for a practising physician. The teaching-learning activities of these subjects include lectures, tutorials and clinical training.

The main assessment in the clinical sciences programme is the final MBBS examination, held at the end of the 10<sup>th</sup> semester assessing all 5 subjects. Meanwhile, end professorial assessments, mock exams, tutorials will be conducted at the end of each topic. To pass the Final MBBS examination, in each of the subjects, the student should score a minimum of 45% in theory papers and 50% in clinicals. A candidate obtaining 70% or more in a subject in the first attempt will be awarded a distinction pass in that subject.

## **MEDICINE**

**Duration of Course:** 7 Semesters

The subject of clinical medicine aims to impart knowledge on recognition of diseases and disorders of internal medicine. The student will be taught the subject and skills required in the identification of physical signs and symptoms, the indications for basic and specific investigations in order to formulate a differential diagnosis and the ability to make a general and pharmacological management plan for treatment. The student will also develop the ability to explain medical conditions, their treatment and prognosis as well as the skills in establishing a good rapport with patients, their relatives and other medical colleagues.

### **Intended Learning Outcomes**

On completion of the series of lectures, tutorials, question based learning and clinical training the student will be able to,

1. Recognise diseases/ disorders of internal medicine.
2. Identify physical signs and symptoms of the conditions.
3. Apply knowledge to explain the underlying conditions.



4. Determine indications for basic and relevant specific investigations.
5. Interpret basic and specific investigations results relevant to different diseases/conditions.
6. Outline general and pharmacological management plans for the condition.
7. Explain the outcome and prognosis of the condition.
8. Develop good rapport, trust and ethical relationships with patients and families.
9. Communicate relevant information and explanations effectively with the patients, families, colleagues and other professionals.
10. Adopt the medical ethics applied to professional practise in all areas of internal medicine.

### The Academic Programme

Subject Area	Teaching/ Learning Method	Semester
<b>Cardiovascular System</b>	Lectures - 15 hours Tutorials/ SGD/ PBL - 4 hours	6,7
<b>Respiratory System</b>	Lectures - 10 hours Tutorials/ SGD/ PBL - 3 hours	6,7
<b>Central Nervous System</b>	Lectures - 11 hours Tutorials/ SGD - 3 hours	7,8
<b>Nephrology</b>	Lectures - 8 hours Tutorials/ SGD/ PBL - 2 hours	8
<b>Gastroenterology/ Liver Pancreas</b>	Lectures - 10 hours Tutorials/ SGD/ PBL - 3 hours	8
<b>Endocrine and Metabolic Disorders</b>	Lectures - 14 hours Tutorials/ SGD/ PBL - 4 hours	8
<b>Haematology</b>	Lectures - 10 hours Tutorials/ SGD/ PBL - 2 hours	8
<b>Infections</b>	Lectures - 9 hours Tutorials/ SGD/ PBL - 2 hours	9
<b>Rheumatology</b>	Lectures - 5 hours Tutorials/ SGD/ PBL - 2 hours	9





<b>Subject Area</b>	<b>Teaching/ Learning Method</b>	<b>Semester</b>
<b>Dermatology</b>	Lectures – 6 hours	9
<b>Geriatrics</b>	Lectures – 6 hours	9
<b>Medical Ethics</b>	Lectures – 4 hours	9
<b>Special Topics</b>	Lectures – 5 hours	9
<b>Nuclear Medicine</b>	Lectures – 3 hours	9
<b>Naval Medicine</b>	Lectures – 3 hours	9
<b>Aviation Medicine</b>	Lectures – 3 hours	9

N.B. 4 tutorials will be held on the final 6 topics.

There will be 10 tutorials and 30 PBLs on various topics in the 10<sup>th</sup> Semester.

### **Clinical appointments**

<b>Speciality</b>	<b>Duration</b>
<b>General Medicine (1<sup>st</sup>)</b>	8 weeks
<b>General Medicine (2<sup>nd</sup>)</b>	8 weeks
<b>Cardiology</b>	2 weeks
<b>Rheumatology</b>	2 weeks
<b>Neurology</b>	2 weeks
<b>Nephrology</b>	2 weeks
<b>Sexually Transmitted Diseases</b>	2 weeks
<b>Dermatology</b>	2 weeks
<b>Pulmonology</b>	2 weeks
<b>Blood Bank</b>	2 weeks
<b>Oncology</b>	2 weeks
<b>Radiology</b>	2 weeks
<b>Professorial Appointment</b>	8 weeks

During the clinical appointments in semesters 9 and 10, 15 ward classes will be held per semester.



## Assessments

One continuous assessment will be held at the end of the professorial appointment. At the end of the 10<sup>th</sup> semester the final MBBS examination will be held.

### Continuous Assessment

Method of Assessment	Marks allocated to Final MBBS	Total marks allocated to Final MBBS
OSCE	10	
Viva	10	
<b>Total</b>		<b>20</b>

### Final MBBS Examination

Method of Assessment No of questions	Marks allocated to Final MBBS	Total marks allocated to Final MBBS
Paper 1 - MCQs	20	
Paper 2 - SEQs	20	
Long case - 1 case	20	
Short cases - 4 cases	20	
<b>Contribution to final MBBS examination</b>		<b>80</b>
<b>Continuous Assessment contribution</b>		<b>20</b>
<b>Total marks</b>		<b>100</b>

### Final MBBS Supplementary Examination

Method of Assessment No of questions	Marks allocated to Final MBBS	Total marks allocated to Final MBBS
Paper 1 - MCQs	20	
Paper 2 - SEQs	30	
Long case	25	
Short case - 4 cases	25	
<b>Total marks</b>		<b>100</b>



### Recommended Textbooks:

- Kumar and Clark's Clinical Medicine, Kumar P, Clark M  
8<sup>th</sup> edition, 2012  
Saunders Elsevier, Philadelphia.
- Davidson's Principles and Practice of Medicine, Colledge NR, Walker BR, Ralston SH (eds)  
21<sup>st</sup> edition, 2010  
Churchill Livingstone, London.
- Oxford Hand Book of Clinical Medicine  
Longmore M, Wilkinson I (eds)  
8<sup>th</sup> edition, 2010  
Oxford University Press, Oxford.
- Hutchinson's Clinical Methods,  
Glynn M, Drake W (eds)  
23<sup>rd</sup> edition, 2012 Saunders Ltd,  
Philadelphia.
- Macleod's Clinical Examination  
Douglas G, Nicol F,  
Robertson C 12<sup>th</sup> edition, 2013  
Churchill Livingstone, London.



## **SURGERY**

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**Duration of Course:** 7 Semesters

During this course, the student will be imparted the necessary knowledge and skills to evaluate simple surgical problems and manage them. In order to do so the student is taught history taking in an orderly manner, eliciting the physical signs and interpreting them. Further knowledge will develop the ability to formulate a differential diagnosis. Students are expected to learn the common procedures performed in a surgical ward and be able to perform them during their internship and thereafter. The students will also be taught the method of identifying major surgical problems; critical illnesses and emergencies in the field of surgery that require senior review and intervention. During the clinical appointments the student is expected to acquire knowledge, perform pre-operative preparation and to manage the post-operative period of a variety of surgical problems. In addition they are expected to acquire experience in the doctor- patient relationship, dealing with relatives of patients, working with other categories of staff in the hospital environment, ethics and documentation. The aim of the course is to enable the student to work in a surgical ward as a house officer after passing the final MBBS examination and as a competent medical officer thereafter. This is the foundation of surgery upon which students who choose to proceed with postgraduate training in surgery will build on.

### **Intended Learning Outcomes**

On completion of the series of lectures, tutorials, laboratory skills and clinical training the student is expected to be able to;

1. Obtain a history and elicit physical signs in a surgical patient.
2. Formulate a differential diagnosis and arrive at a working diagnosis.
3. Choose the basic investigations to be done to confirm the diagnosis and their interpretation.
4. Choose the special investigations required and request them in consultation with seniors.
5. Formulate and carry out an initial treatment plan.



6. Perform the initial management of surgical emergencies including trauma with the help of seniors.
7. Communicate with relatives and patients whilst maintaining professionalism and ethics.
8. Develop healthy relationships with colleagues and hospital staff.

### The Academic Programme

Subject Area	Teaching / Learning Method	Semester
<b>Preoperative care</b>	Lectures - 8 Tutorials/SGDs/Skills/PBL - 4	6
<b>Basic Surgical techniques</b>	Lectures - 3 Tutorials/SGDs/Skills /PBL - 2	6
<b>Medico-legal Aspects</b>	Lectures - 1 Tutorials/SGDs/Skills - 4	6
<b>Vascular Surgery</b>	Lectures - 5 Tutorials/SGDs/Skills - 2	6
<b>Thorax</b>	Lectures - 1 Tutorials/SGDs/Skills - 2	6
<b>Head and neck</b>	Lectures - 3 Tutorials/SGDs/Skills - 1	6
<b>GIT</b>	Lectures - 9 Tutorials/SGDs/Skills - 8	7
<b>Hepatobiliary system and pancreas</b>	Lectures - 4 Tutorials/SGDs/Skills - 2	7
<b>Abdominal wall/Abdomen</b>	Lectures - 3 Tutorials/SGDs/Skills - 1	7
<b>Musculoskeletal disorders</b>	Lectures - 6 Tutorials/SGDs/Skills - 1	7
<b>Endocrine Surgery</b>	Lectures - 4 Tutorials/SGDs/Skills - 2	7
<b>Management of trauma/Critical care</b>	Lectures - 11 Tutorials/SGDs/Skills - 10	8
<b>Chemical, Radiological Biological and Nuclear Warfare</b>	Lectures - 5 Tutorials/SGDs/Skills - 2	8
<b>Principles of oncology</b>	Lectures - 6 Tutorials/SGDs/Skills - 6	8
<b>Principles of oncology</b>	Lectures - 6 Tutorials/SGDs/Skills - 6	8



Subject Area	Teaching / Learning Method	Semester
Urology	Lectures - 8 Tutorials/SGDs/Skills - 8	9
Paediatric Surgery	Lectures - 7	9
Eye	Lectures - 4	9
ENT (Otorhinolaryngology)	Lectures - 3	9
Radiology and current concepts	Lectures - 3	9
Skills / Laboratory session	Hours 12	1 & 10

### Clinical Appointments

	Speciality	Duration
1	General Surgery (1 <sup>st</sup> )	8 weeks
2	General Surgery (2 <sup>nd</sup> )	8 weeks
3	Orthopaedic Surgery /	4 weeks
4	Otorhinolaryngology(ENT)	2 weeks
5	Urology	2 weeks
6	Ophthalmology	2 weeks
7	Trauma	2 weeks
8	Vascular	2 weeks
9	Anaesthesiology and Critical Care	1 weeks
10	Oncosurgery	2 weeks
11	Vascular surgery	1 week
<b>Total number of weeks</b>		<b>34 weeks</b>

<b>Professorial clinical appointment</b>	
<b>Surgery</b>	8 weeks

During the clinical appointments in semester 9 and 10, ward classes will be held.



## Assessments

One continuous assessment will be held at the end of the professorial appointment. At the end of the 10<sup>th</sup> semester the final MBBS examination will be held.

### Continuous Assessments

Method of Assessment	Marks allocated for final MBBS	Total Marks allocated for final MBBS
OSCE	10	
Viva	10	
<b>Total</b>		20

### Final MBBS Examination

Method of Assessment No of questions	Marks allocated to final MBBS	Total Marks allocated to final MBBS
Paper 1 - MCQs	20	
Paper 2 - SEQs	20	
Long case - 1case	20	
Short cases	20	
<b>Total</b>		80
Continuous assessments		20
<b>Total marks</b>		100

### Final MBBS Supplementary Examination

Method of Assessment No of questions	Marks allocated to final MBBS	Total Marks allocated to final MBBS
Paper 1 - MCQs	20	
Paper 2 - SEQs	30	
Long case - 1case	25	
Short cases	25	
<b>Total marks</b>		100



### **Recommended textbooks:**

- Bailey & Love's Short Practice of Surgery  
Williams N, Bulstrode C, O'Connell PR  
(eds) 26<sup>th</sup> edition, 2013  
Arnold Publications, London. (Hodder Headline Group)
- Lecture Notes: General  
Surgery Ellis H, Calne R,  
Watson C  
12<sup>th</sup> edition, 2011  
Wiley-Blackwell, Oxford.
- Browse's Introduction to the Symptoms and Signs of Surgical  
Disease. Black J, Browse NL, Burnand KG, Thomas WEG  
4<sup>th</sup> edition, 2005  
Hodder Arnold Publications, London.
- Apley's Concise System of Orthopaedics and Fractures  
Louis Solomon, David J. Warwick, Selvadurai Nayagam  
3<sup>rd</sup> edition, 2014  
Hodder Arnold Publications, London.

### **Supplementary Reading**

- Clinical Surgery made  
easy 1<sup>st</sup> Edition 2008  
TFM Publishing Ltd
- Hamilton Bailey's Physical Signs. Demonstrations of physical  
signs in clinical surgery  
Lumley JSP (ed)  
18<sup>th</sup> edition,  
1997  
Butterworth Heinemann, Oxford.





## PAEDIATRICS

**Duration of Course:** 7 Semesters

Paediatrics is the branch of medicine that deals with the care of infants, children and adolescents. The age limit ranges from birth up to 18 years of age. However, due to practical considerations the upper limit may extend up to 21 years, especially for chronic diseases such as diabetes where the child transfers from paediatrics to adult medicine through a transitional period of shared care.

A medical practitioner who specializes in paediatrics is known as a paediatrician. The word *paediatrics* means "healer of children". It is derived from the two Greek words "*pais*" meaning child and "*iatros*" meaning healer.

A child is a part of a family and a larger community. Hence, a paediatrician needs to work with members of families and communities in caring for children. Therefore, Paediatricians work both in hospitals as well as in the primary health care settings in communities.

Paediatrics encompasses all issues relating to child health. Hence, growth, nutrition, development and immunization all fall within the ambit of paediatrics, apart from the usual childhood diseases. The assessment of nutritional status and monitoring of growth and development are integral to paediatrics. The detection and management of abnormal growth and delayed development is an essential component of paediatric practice. Childhood immunization is another area, which is closely linked to child health and overall well-being.

Children are not miniature adults and paediatrics differs vastly from adult medicine. These differences are seen right across the paediatric practice. For example, although history taking is a very important skill in paediatrics as well as in all other branches of medicine, the paediatric patient may not be able to give a comprehensive history. Hence, the role of parent or guardian becomes vital. Also the format and technique of physical examination as well as the differential diagnoses reached, differ considerably between the different age groups within paediatrics. In the management of illnesses, the paediatric patient should be seen as a part of a family and community rather than an isolated entity. The circumstances of the family and the community should be considered if a successful outcome is to be expected.



This course aims to impart the knowledge and skills required for the medical student to work in a paediatric ward as an intern house officer and later on as a primary health care provider for children and families.

## **Intended Learning Outcomes**

### **General Objectives**

At the end of the course the graduate should be able to

1. Diagnose and treat common childhood diseases.
2. Identify and refer conditions needing specialized management.
3. Manage a paediatric emergency in a primary care setting.
4. Advice individuals, families and community on maintaining a child in good health.
5. Function as a house officer in a paediatric unit in a Base/General/Teaching hospital in Sri Lanka.
6. Understand the scientific basis of paediatrics in order to proceed to further specialization in the subject if he/she so desires.

### **Specific Objectives of Clinical Training**

At the end of the clinical training the student should be able to

1. Take a complete and relevant paediatric history.
2. Do a complete and relevant physical examination of a neonate, infant, preschool and a school child.
3. Assess growth using appropriate growth charts.
4. Do a basic developmental screening.
5. At the end of history and physical examination the student should be able to
  - a. give a probable diagnosis and differential diagnosis.
  - b. give reasons for arriving at the diagnosis.
  - c. compile a list of problems that the child has.
  - d. suggest investigations needed to confirm the diagnosis.
  - e. interpret the investigation results.
  - f. draw up a plan of management.
  - g. write a prescription appropriate for the child.
  - h. explain to the parents in simple language, the problem that the child has and what needs to be done.



- i. summarize the patients problems adequately to a group.
- j. write clear concise and relevant progress notes for the patient.
- k. write a diagnosis card (discharge summary) for the patient.

### The Academic Programme

Subject Area	Teaching/ Learning Method	Semester
<b>Introduction to Paediatrics</b>	Lecture - 2 hours	6
<b>Care of the child 1 to 5 years</b>	Lecture - 6 hours	6
<b>The new born</b>	Lectures - 20 hours Tutorials - 4 hours Slide show - 2 hours	7
<b>Growth and development</b>	Lectures - 12 hours Tutorials - 2 hours Slide show - 2 hours	7
<b>Nutrition</b>	Lectures - 16 hours Tutorials - 4 hours	7
<b>Immunization</b>	Lectures - 2 hours	7
<b>Childhood infections</b>	Lectures - 10 hours Tutorials - 2 hours	7
<b>Cardiovascular diseases</b>	Lectures - 10 hours Tutorials - 2 hours	8
<b>Respiratory diseases</b>	Lectures - 10 hours Tutorials - 4 hours	8
<b>Gastrointestinal disease</b>	Lectures - 6 hours Tutorials - 2 hours	8
<b>Genitourinary diseases</b>	Lectures - 10 hours Tutorials - 2 hours	8
<b>Central Nervous system diseases</b>	Lectures - 8 hours Tutorials - 2 hours	8
<b>Paediatric Haematology</b>	Lectures - 8 hours Tutorials - 2 hours	8
<b>Paediatric Endocrine disorders</b>	Lectures - 10 hours Tutorials - 2 hours	8



Subject Area	Teaching/ Learning Method	Semester
Orthopaedic problems in children	Lectures - 4 hours Slide show - 2 hours	9
Child psychiatry	Lectures - 4 hours Tutorials - 2 hours	9
Miscellaneous topics	Lectures - 10 hours	9

### Description of the course

Paediatrics will be taught from semester 3. Teaching activities will include a foundation module (2 weeks), 3 clinical appointments and theoretical teaching.

### Theoretical Teaching

Theoretical teaching will be in the form of lectures, tutorials and small group discussions.

NB: 30 Tutorials will be held on selected topics during semesters 6-10.

### Integrated Ward Class

08 Integrated Ward Classes will be done during the professorial appointment.

### Clinical Appointments

#### a) Foundation Module - 2 weeks

This will be conducted at the beginning of the 4<sup>th</sup> semester at UHKDU by academic staff of the department to familiarize students with paediatric history taking and examination.

#### b) 1<sup>st</sup> and 2<sup>nd</sup> Clinical Appointments

1<sup>st</sup> and 2<sup>nd</sup> clinical appointments will follow, during 4<sup>th</sup> and 5<sup>th</sup> semesters. They will be at teaching/ base hospitals under the guidance of a Consultant Paediatrician for a period of 4 weeks each.



## Clinical appointments

Speciality	Duration
Foundation Module - Paediatrics	2 weeks
General Paediatrics (1 <sup>st</sup> )	4 weeks
General Paediatrics (2 <sup>nd</sup> )	4 weeks
Professorial Appointment	8 weeks

### Assessments

#### Formative Assessments

At the end of the foundation module, 1<sup>st</sup> and 2<sup>nd</sup> Paediatric Appointments OSCE will be conducted.

#### Summative Assessments

At the end of the Professorial Appointment an End Professorial Assessment will be conducted which will contribute 20% for the Final MBBS marks.

At the end of the MBBS course the final MBBS examination will be held comprising of theory and clinical components.

#### End Professorial Assessments

Method of Assessment No of questions	Marks allocated to each component	Total marks allocated to Final MBBS
OSCE	10	
Viva	10	
<b>Total</b>		<b>20</b>



## Final MBBS Examination

Method of Assessment	Marks allocated to each component	Total marks allocated to Final MBBS
Paper 1 - MCQ/BRQ (SBR)	20	
Paper 2 - SEQ	20	
Long case - 1 case	20	
Short case - 02 cases	20	
Contribution from summative examination		80
Continuous Assessment contribution		20
Total marks		100

## Final MBBS Supplementary Examination

Method of Assessment No of questions	Marks allocated to each component	Total marks allocated to Final MBBS
Paper 1 - MCQ	20	
Paper 2 - SEQ	30	
Long case- 1 case	25	
Short case - 02 cases	25	
Total marks		100

## Recommended textbooks:

- The Illustrated Textbook of Paediatrics Lissauer T, Clayden G 4<sup>th</sup> edition, 2011 Mosby Elsevier, Missouri
- Essential Paediatrics Hull D, Johnston DI Latest edition, Churchill Livingstone, London.



- Hospital Paediatrics,  
Milner AD, Hull  
D Latest edition,  
Churchill Livingstone, London.
- Ghai Essential Paediatrics  
Vinod K Paul, Araum D  
Bagga 8<sup>th</sup> edition
- Text Book of  
Paediatrics Fofar and  
Arneil  
Latest edition

### **Supplementary reading**

- Nelson's Textbook of Paediatrics  
Latest edition



## OBSTETRICS AND GYNAECOLOGY

**Duration of Course:** 7 semesters

The subject of obstetrics and gynecology is a surgical and medical specialty that focuses mainly on the female reproductive system and the care of women. However when appropriate other systems such as the cardiovascular and endocrine systems are studied and discussed.

Obstetrics focuses on physiological and abnormal events related to pre-pregnancy, pregnancy, childbirth and the puerperium. Gynecology is geared towards general healthcare of females from adolescent to menopause, with a special focus on physiological and pathological conditions in the female reproductive organs.

### **Intended Learning outcomes**

On completion of the course the students should acquire the required knowledge, skills and attitudes to function under supervision and mentorship as an intern house officer and later as a medical officer in obstetrics and gynaecology at main hospitals, primary health care institutions and private sector to provide the best care with a humane approach.

As a medical officer he/she should also acquire the skill to seek advice and to refer to appropriate institutions or specialists at the earliest when it is not possible to provide what is best for the patient and the family.

It is desirable for the students to acquire the correct mind set to continue in further education to keep abreast with the constantly evolving advances in obstetrics & gynaecology.

To achieve above the following key learning objectives are formulated and implemented during the course.

1. Counsel and manage all aspects of normal pregnancy, labour, delivery and puerperium without any further resident training.
2. Counsel and manage common gynaecological problems without further resident training.
3. Provide the initial management of common obstetric & gynaecological emergencies without further resident training.
4. Recognize common abnormalities of pregnancy, labour, delivery and puerperium and to understand the principles of management of such abnormalities.





5. Describe principles of early diagnosis of gynaecological malignancies and other important gynaecological problems.
6. Perform duties of an intern house officer in obstetrics & gynaecology under supervision following graduation.
7. Provide basic care at primary and secondary level to pregnant women during antenatal, labour and puerperium.
8. Diagnose and manage gynaecological problems as a medical officer in the state sector or as a family practitioner.
9. Counsel and promote prevention and methods available for screening of obstetric and gynaecological problems.
10. Show continued desire to broaden knowledge by further self-study and research.
11. Value the importance of Continued Professional Development.
12. Acquire and demonstrative communication skills and attributes of professionalism.
13. Function as an effective member in a health team.
14. Establish a foundation to further specialize in obstetrics & gynaecology if desired to do so.

### The Academic Programme

Subject Area	Teaching/ Learning Method	Semester
<b>Introduction, History taking and examination</b>	Lectures -3 hours Tutorial/skills - 2 hours	6
<b>Good clinical practice, evidence based medicine and the WHO reference library</b>	Lectures - 1 hour	6
<b>Obstetrics and Gynaecology in the community</b>	Lectures - 1 hour	6
<b>Physiological changes in pregnancy</b>	Lectures - 1 hour	6
<b>Antenatal care</b>	Lectures - 6 hours Tutorial - 4 hours	6, 7
<b>Labour and complications of labour</b>	Lectures - 6 hours Tutorials/ Skills - 12 hours	6, 7
<b>Post natal care</b>	Lectures - 1 hour	6, 7



<b>Subject Area</b>	<b>Teaching/ Learning Method</b>	<b>Semester</b>
<b>Pre-eclampsia/ eclampsia</b>	Lectures – 1 hour Tutorial – 2 hours	7, 8
<b>Medical complications of pregnancy</b>	Lectures – 4 hours Tutorials – 2 hours	7, 8
<b>Caesarean section and post-operative care</b>	Lectures – 1 hour	7, 8
<b>Causes and management of death in utero</b>	Lectures – 1 hour	8, 9
<b>Multiple pregnancy, abnormal lie and presentation</b>	Lectures – 2 hours Tutorials/skills – 2 hours	8, 9
<b>Viral infections and sexually transmitted disease</b>	Lectures – 1 hour	8, 9
<b>Drugs in pregnancy and lactation</b>	Lectures – 1 hour	8, 9
<b>Blood group incompatibility</b>	Lectures – 1 hour	8, 9
<b>Human genetics and genetic disorders</b>	Lectures – 1 hour	8, 9
<b>Code of conduct for medical officers, ethics, reproductive health and sexual rights</b>	Lectures – 1 hour	8, 9
<b>Complications of early pregnancy</b>	Lectures – 1 hour	8, 9
<b>Disorders of genetic and acquired abnormalities of HPOE axis.</b>	Lectures – 1 hour	8, 9
<b>Gynaecological disorders</b>	Lectures – 17 hours Tutorials/ skills – 14 hours	9, 10
<b>Revision ad Exam technique</b>	Lecture – 1 hour	9, 10

NB. In addition to the above there will be 10 problem based learning classes on selected topics.

The syllabus of the training programme consists of 21 modules. Under each module the content areas, objectives, outcomes and teaching methods are described in detail. These will be made available to the students on commencement of this course.



### Final MBBS Examination (summative)

Method of Assessment	Marks allocated to Final MBBS	Total marks allocated to Final MBBS
Paper 1 - MCQ (20 true/false and 30 SBA questions)	20	
Paper 2 - SEQ (6 questions)	20	
Long case - 2 cases (one case each for Obstetrics and Gynaecology)	40	
<b>Contribution to final MBBS examination</b>		80
<b>Continuous Assessment contribution</b>		20
<b>Total marks</b>		<b>100</b>

### Final MBBS Supplementary Examination

Method of Assessment No of questions	Marks allocated to 2 <sup>nd</sup> MBBS	Total marks allocated to 2 <sup>nd</sup> MBBS
Paper 1 - MCQ (20 true/ false and 30 SBA questions)	20	
Paper 2 - SEQ (6 questions)	30	
Long case - 2 cases (one case each for Obstetrics and Gynaecology)	50	
<b>Total marks</b>		<b>100</b>



## Recommended textbooks

- Obstetrics Illustrated Authors:  
Kevin P. Hanretty  
Edition: 7<sup>th</sup>  
Year of publication: 2009
- Gynaecology Illustrated  
Authors: Catrina Bain, Kevin  
Burton, Jay McGavigan  
Edition: 6<sup>th</sup>  
Year of publication: 2010
- Essential Antenatal Care  
Author: Deepal S. Weerasekera  
Edition: 2<sup>nd</sup>  
Year of publication: 2016
- Essential Gynaecology Care  
Author: Deepal S. Weerasekera  
Edition: 2<sup>nd</sup>  
Year of publication: 2021
- Essential Labour and Puerperium Care  
Author: Deepal S. Weerasekera  
Edition: 3<sup>rd</sup>  
Year of publication: 2020
- Text Book of Obstetrics Author:  
D.C.Dutta Edition: 5<sup>th</sup>  
Year of publication: 2009
- Text Book of Gynaecology  
Author: D.C.Dutta  
Edition: 5<sup>th</sup>  
Year of publication: 2009
- Obstetrics by Ten Teachers  
Authors: Philip Baker, Louise Kenny  
Edition: 20<sup>th</sup>  
Year of publication: 2019



- Gynaecology by Ten Teachers  
Authors: Ash Monga, Stephen  
Dobbs Edition: 20<sup>th</sup>  
Year of publication: 2019

### Supplementary Reading

- Oxford Handbook of Obstetrics and Gynaecology  
Authors: Sally Collins, Sabaratnam  
Arulkumaran, Kevin Hayes Edition: 2<sup>nd</sup>  
Year of publication: 2011
- Clinical Obstetrics by Ten Teachers  
Authors: Philip Baker, Louise Kenny  
Edition: 19<sup>th</sup>  
Year of publication: 2011
- Clinical Obstetrics and Gynaecology  
Authors: J.Drife, B.Magowan  
Edition: 2<sup>nd</sup>  
Year of publication: 2009
- WHO Reproductive Health Library  
[www.who.int/rhl](http://www.who.int/rhl)



# **PSYCHIATRY**

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**Duration of the course:** 4 semesters

Psychiatry is a branch of medical science concerned with mental and behavioural disorders. It is one of the five major clinical disciplines examined in the final MBBS examination.

During this course, a student will be imparted the necessary knowledge, skills and attitudes to recognize and evaluate common psychiatric and behavioural problems and manage them.

Students will also learn to identify problems which require referral to specialized treatment. The aim of the course is to enable a student to be able to identify and do the basic management till referred to specialized care for behavioural problems seen in general hospital settings as a competent house officer and a general medical officer thereafter. This will be the foundation of Psychiatry upon which students who choose to proceed with postgraduate training in psychiatry will build on.

## **Intended Learning Outcomes**

### **General Objectives**

At the end of the course the student should be able to,

1. Organize clinical data from psychiatric interview and mental status examination to hypothesize reasonable psychiatric diagnoses and psychosocial circumstances or stressors.
2. Demonstrate knowledge about common psychiatric presentations.
3. Recognize potential risks and psychiatric emergencies among general medical patients.
4. Demonstrate knowledge about commonly available psychiatric medication.
5. Identify and refer conditions needing specialist management.
6. Understand the parameters of ethical clinical practice.
7. Demonstrate knowledge about medical and medico-legal interventions (psychiatric referrals, involuntary commitment, judgments of medical incompetence).
8. Demonstrate ability in psycho-education.
9. Be familiar with psychiatric services available in Sri Lanka.
10. Understand the scientific basis of psychiatry in order to proceed to further specialization if the student desires.



## Specific Objectives of Clinical Training

At the end of the clinical training the student should be able to,

1. Demonstrate the ability to conduct a psychiatric interview and perform a mental state examination.
2. Give a probable diagnosis and differential diagnosis giving reasons for justification.
3. Recognize the clinical characteristics of the following mental disorders: major depression, bipolar disorder, schizophrenia, schizoaffective disorder, panic disorder, generalized anxiety disorder, PTSD, obsessive- compulsive disorder, personality disorders, substance use disorders, cognitive disorders, organic psychiatric conditions, psychiatric conditions related to general medical disorders, disorders in puerperium, acute stress and adjustment disorders, somatoform disorders, attention-deficit/hyperactivity disorder (ADHD) and other common childhood conditions.
4. The student will demonstrate the ability to provide coherent, thoughtful presentations of psychiatric patients in both oral and written forms.
5. The student will recognize indications for treatments of patients with mental disorders.
6. Be familiar with laboratory and other types of testing (e.g., psychological tests).
7. The student will demonstrate the ability to work in a multidisciplinary team.
8. The student will demonstrate the capacity to respond appropriately to constructive feedback given by instructors.



## The Academic Programme

<b>Subject Area</b>	<b>Teaching/ Learning Method</b>	<b>Semester</b>
<b>Introduction to psychiatry</b>	Lectures – 1 hour	4
<b>History taking and assessment of mental state</b>	Lectures – 3 hours	4, 8
<b>Psychopathology</b>	Lectures – 2 hours	8-10
<b>Classification of psychiatric disorders</b>	Lectures – 2 hours	8-10
<b>Delirium</b>	Lectures – 2 hours	8-10
<b>Dementia</b>	Lectures – 1 hour	8-10
<b>Alcohol and psychoactive substance disorders</b>	Lectures – 4 hours	8-10
<b>Schizophrenia and other psychotic disorders</b>	Lectures – 4 hours	8-10
<b>Affective disorders</b>	Lectures – 4 hours	8-10
<b>Generalized anxiety disorder and Panic disorder</b>	Lectures – 2 hours	8-10
<b>Phobic disorder</b>	Lectures – 2 hours	8-10
<b>Obsessive compulsive disorder</b>	Lectures – 2 hours	8-10
<b>Stress related illnesses</b>	Lectures – 2 hours	8-10
<b>Defence Mechanisms</b>	Lectures – 2 hours	8-10
<b>Deliberate self-harm</b>	Lectures – 2 hours	8-10
<b>Dissociative disorders</b>	Lectures – 2 hours	8-10
<b>Somatization disorders</b>	Lectures – 2 hours	8-10
<b>Sleep, eating and sexual disorders</b>	Lectures – 4 hours	8-10
<b>Pregnancy and postpartum disorders</b>	Lectures – 2 hours	8-10
<b>Personality Disorders</b>	Lectures – 2 hours	8-10
<b>Child psychiatry</b>	Lectures – 10 hours	8-10
<b>Intellectual disability</b>	Lectures – 2 hours	8-10
<b>Forensic psychiatry</b>	Lectures – 2 hours	8-10
<b>Community psychiatry</b>	Lectures – 2 hours	8-10
<b>Medically unexplained physical symptoms</b>	Lectures – 2 hours	8-10
<b>Emergencies in psychiatry</b>	Lectures – 2 hours	8-10
<b>Military Psychiatry</b>	Lectures – 4 hours	8-10
<b>Psychopharmacology and other treatments in psychiatry</b>	Lectures – 2 hours	8-10
<b>Psychological treatments</b>	Lectures – 4 hours	8-10





NB: 30 Tutorials/PBL/Seminars will be held on selected topics during semesters 8 - 10s.

### Clinical Appointments

Speciality	Duration
Psychiatry (1 <sup>st</sup> ) One week at Military Hospital	4 weeks
Professorial Appointment	8 weeks

During the clinical appointments in semesters 9 and 10, 15 ward classes will be held per Semester.

### Assessments

One continuous assessment will be held at the end of the professorial appointment. Continuous assessment in psychiatry will constitute a viva based on the case book. At the end of the 10<sup>th</sup> semester, the final MBBS examination will be held.

### Continuous Assessment

Method of Assessment	Marks allocated	Total marks allocated to Final MBBS
Case book based viva	10	10

### Final MBBS Examination

Method of assessment	Marks allocated to Final MBBS	Total marks allocated to Final MBBS
Paper 1 - MCQ/BRQ (50)	25	
Paper 2 - SEQ	25	
Long case- 01 case	25	
OSCE/ Short Case- 04 cases	15	
Contribution from summative examination		90
Continuous assessment contribution		10
<b>Total marks</b>		<b>100</b>



## Final MBBS Supplementary Examination

Method of Assessment	Marks allocated to Final MBBS	Total marks allocated to Final MBBS
Paper 1 - MCQ	25	
Paper 2 - SEQ	30	
Long case	30	
OSCE/Short Cases	15	
<b>Total Marks</b>		<b>100</b>

### Recommended Textbooks:

- Textbook of Psychiatry Puri BK, Treasaden IH 3<sup>rd</sup> edition, 2011  
Churchill Livingstone, London.
- Handbook of Clinical Psychiatry, A Practical Guide, de Silva V, Hanwella R 2012  
Kumaran Book House, Chennai.
- Psychiatry: An Oxford Core Text Gelder M, Mayou R, Geddes J 3<sup>rd</sup> edition, 2005  
Oxford Medical Publications, Oxford.



# **RULES FOR STUDENTS**

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## **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 Faculty of Defence Studies is given separately.

Any change of name must be immediately brought to the notice of the dean with relevant evidence.

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

Students are not permitted to leave their registered address during term time without prior permission from the Dean.

A student is **not** permitted to be absent from study for more than 7 days without informing the relevant HOD/Dean.

## **IN CASE OF ILLNESS**

### **a. Illness during termtime**

If the student is taken ill during term time he/she should inform the University Medical Officer as early as possible. If the student is unable to do so, he/she should inform the Dean in writing by registered post as early as possible AND submit within SEVEN days of falling ill, a valid medical certificate issued by one of the persons listed under (c) below.

### **b. Illness at examination time (including continuous assessment)**

If a student is taken ill just before or during any part of an Examination he/she should inform the UMO as early as possible. If the student is unable to do so for a valid reason, he/she should inform the Dean in writing by 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**



- d.
- (1) Medical officer Military Hospital or SLAF/SLN Hospital.
  - (2) A consultant of any government hospital.
  - (3) A District Medical Officer (DMO) in a government hospital.
- a. PLEASE NOTE that medical certificates from medical officers other than those listed will NOT be accepted.
- b. A medical certificate is not valid unless it has been submitted within ONE WEEK of the illness.

Medical submission form other instructions are given in the 'students' section of the FOM website.

### **DRESS CODE AND CONDUCT**

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 officers, library or lecture halls is banned. Smoking is prohibited in the premises of the University and the Teaching Hospitals.

No student or student body shall collect monies for any purpose without written permission from the Dean.

Only official functions approved by the Vice Chancellor may be organized and held within the FOM.

Students are instructed to always check FOM website and notice boards at the Faculty for updated instructions & news