Faculty of Medicine

Wayamba University of Sri Lanka

Students' Handbook

This handbook was issued for the students of the batch 2020/2021 admitted in the Bachelor of Medicine & Bachelor of Surgery Degree programme in the Faculty of Medicine, Wayamba University of Sri Lanka. The information given in the handbook has been updated on January 2021. The university reserves the right to change or cancel any syllabus or examination arrangement at any time. If students need any further clarifications, they may inquire from the Faculty Office of the Faculty of Medicine of the Wayamba University of Sri Lanka.

This Hand book will be effective for all batches from Intake 2020/2021 onwards until further revision.

Contents

Introduction

Dear student, you are warmly welcome to the faculty of medicine, Wayamba University of Sri Lanka.

This handbook provides you with the important information regarding the history of this faculty, its layout, the curriculum, and the course leading to MBBS degree, student assistance schemes, services available, disciplinary matters and other information useful to new students.

General

The Wayamba University of Sri Lanka is located in the administrative district of Kurunegala in the North-Western Province. Three premises of the university are located at Kuliyapitiya, Makandura and Labuyaya. Administrative complex and the Faculties of Applied Sciences, Business Studies & Finance and Technology are situated in Kuliyapitiya Premises. Faculties of Agriculture & Plantation Management and Livestock, Fisheries & Nutrition are situated in Makandura premises. The Faculty of Medicine is located at Labuyaya.

Faculty of Medicine, Wayamba University of Sri Lanka was established in 2019. Your faculty is administered by the Dean and the Dean's office. The academic programme you follow will be conducted under three phases by 14 academic departments:

- Pre-clinical Phase:
    - Department of Anatomy
    - Department of Biochemistry
    - Department of Physiology
- Para-clinical phase:
    - Department of Pathology
    - Department of Pharmacology
    - Department of Microbiology
    - Department of Parasitology
    - Department of Forensic Medicine
    - Department of Community Medicine and Family Medicine
- Clinical Phase:
    - Department of Internal Medicine
    - Department of General Surgery
    - Department of Paediatrics
    - Department of Obstetrics & Gynaecology
    - Department of Psychiatry

The **Department of Medical Education** is the 15th department looking after the quality of medical education in the entire five-year programme.

Academic

Faculty of medicine, Wayamba University of Sri Lanka awards **Bachelor of Medicine Bachelor of Surgery (MBBS) degree**. You will be eligible to graduate with MBBS degree if you successfully complete the fulltime, five-year MBBS course and are successful at the final MBBS examination within 10 years of your registration.

You are expected to adhere to the **rules and regulations** laid down by the University Grants Commission, the Wayamba University of Sri Lanka, and Faculty of Medicine with respect to the conduct at the university and at examinations. Important details are given in this handbook and the complete rules and regulations are available in the university and faculty web sites.

MBBS programme is a 5-year programme. The **language of instructions is English**. It is conducted as three phases: Pre-clinical, Para-clinical, and Clinical phases. Prior to the commencement of the academic programme, you will be enrolled for the orientation programme called **'Professional Transition Programme'** (**PTP**).

Preclinical phase runs over the first three semesters. You will study the human anatomy, physiology and biochemistry under following modules:

- Semester one:
  - Information and communication
  - Foundation to basic sciences
  - Body tissues and locomotor system 1
  - Blood and immune system 1
- Semester two:
  - Cardiovascular system 1
  - Respiratory system 1
  - Nutrition and metabolism
  - Gastrointestinal system 1
- Semester three:
  - Renal and urinary system 1
  - Reproductive system 1
  - Endocrine system 1
  - Neurology system 1

You will be assessed by three module-based semester examinations and a subject based second MBBS examination. The marks you obtain at both these examinations will contribute to pass the **Second MBBS barrier Examination**. You are expected to get through this barrier to progress to the next phase. You will be offered four attempts at the barrier examination.

Once successful, you enter the **clinical and para-clinical phases** together. The clinical training is further separated into **pre-professorial and professorial training**. During the first 30 months, the morning sessions will be allocated to pre-professorial clinical training. The final (fifth) year training is called professorial training in dedicated professorial wards. You will be visiting following institutions for both these components of clinical training:

- Teaching Hospital Kuliyapitiya
- Teaching Hospital Kurunegala
- Venereology Clinic Kurunegala
- Public Health Institutes of Kurunegala Health Region
    - MOH Office Weerambugedara
    - Base Hospital Dambadeniya
    - Mental Health Rehabilitation Centre Uhumeeya

The afternoon sessions of the fourth to seventh semesters will be dedicated to the **para-clinical phase.** With the help of clinical departments, the six para-clinical departments will conduct the following 21 modules for you:

- Year 2 Semester II:
    - Foundation in Pathology
    - Foundation in Pharmacology
    - Infection 1,
    - Blood and Immune system 2,
    - Community Medicine -1
- Semester five:
    - Community Medicine-2
    - Cardiovascular system -2
    - Respiratory system -2
    - Gastro- Intestinal system -2
    - Infection 2
- Semester six:

- Community Medicine -3 (Research)
- Endocrine system -2
- Renal and Urinary system -2
- Reproductive system 2
- Forensic Medicine -1

- Semester Seven:
  - Neurology system – 2
  - Body Tissues & Locomotor system -2
  - Mental Health
  - Forensic Medicine -2
  - Community Medicine -4

    Primary Care & Family Medicine

You will visit health care intuitions for the following para-clinical rotations:

- Public health
- Pathology, haematology and clinical chemistry
- Microbiology
- Transfusion medicine
- Forensic medicine
- Family medicine

In the para-clinical phase, you will be assessed at four **module-based end semester examinations**. Even though there is no barrier at this phase, you are expected to successfully complete all modules before entering final year.

Your clinical training and examinations are conducted as subjects:

- Internal Medicine
- Surgery
- Paediatrics
- Obstetrics and Gynaecology
- Psychiatry

Under internal medicine, you will be exposed to the following subspecialty rotations:

- Cardiology
- Respiratory medicine

- Dermatology
- Venereology
- Rheumatology
- Neurology
- Nephrology
- Emergency medicine
- Elective (Endocrinology / Oncology)

You will be visiting following surgical sub-specialties:

- Orthopaedic surgery
- Urological surgery
- Anaesthesiology & critical care
- Ophthalmology
- Otolaryngology
- Radiology
- Trauma

Your progress in the pre-professorial clinical training will be assessed as **portfolio-based** viva after major rotations and at written examination at the end of the eighth semester. These marks will contribute to the final MBBS.

At the end of professorial training, you will be facing the **final MBBS examination**. You will sit for the same examination components which all the students of Sri Lankan state faculties of medicine.

Brief History of the University

Started in 1992 as the Affiliated University College, affiliated to both universities of Peradeniya and Kelaniya. Home Science & Nutrition department was affiliated to the University of Kelaniya, and Agricultural Studies had been affiliated to the University of Peradeniya. In 1996, it became the Wayamba Campus of the Rajarata University of Sri Lanka which consisted of two academic faculties, agriculture and applied sciences.

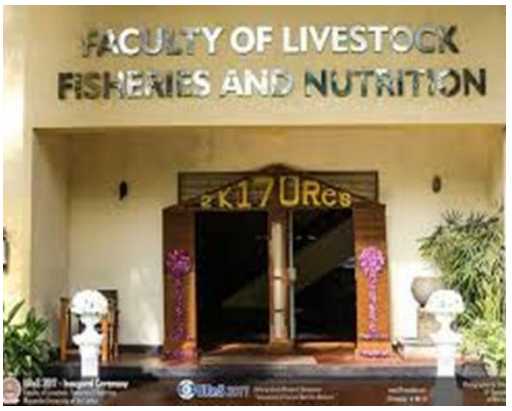
Wayamba University of Sri Lanka was established in 1999 as the 13th state university. At first it consisted of four faculties: Agriculture & Plantation Management, Applied Sciences, Business Studies & Finance and Livestock, Fisheries & Nutrition.

The university saw the addition of Faculty of Technology in 2017 and the Faculty of Medicine in 2019.

Faculty of Agriculture and Plantation Management

Faculty of Applied Sciences

Faculty of Business Studies & Finance



Faculty of Livestock Fisheries and Nutrition

Faculty of Technology

Faculty of Medicine

Vision, Mission and Goals & Objectives of the University

VISION

To gain international eminence as an institute which strives towards producing exemplary healthcare professionals for building healthier societies.

MISSION

To produce highly skilled, socially accountable, health care professionals with the highest professional standards and commitment towards advancement of the discipline in a culture that supports diversity, inclusion, critical thinking, and creativity.

GOALS & OBJECTIVES

The goals of the Wayamba University of Sri Lanka to be achieved during the period of 2018 - 2023 are as follows:

- Quality enhanced and accredited education meeting the national and international standards at the level of undergraduate and postgraduate as well as professional.
- Fulfilling the growing demand for higher education through an increased student access.
- Entrepreneurial graduates with high employability to meet the legitimate expectations of the stakeholders.
- Conducive environment for research, innovations, scholarships and outreach/commercialization.
- Committed university community serving the mankind.

The University Crest

The crest of the Wayamba University of Sri Lanka contains six cultural symbols of national significance, namely a lotus, a book, a lamp, two sheaves of paddy, a conch shell, and a lion with a sword in hand, on top of it.

The lotus is an acclaimed symbol of purity and serenity. The **book** over the lotus is a representation of knowledge that leads the University fraternity to an enlightened state of mind.

The lamp from one angle looks like a flame, which is symbolical of the light of knowledge. And from another angle, it is a **conch shell**. It is firstly a device of communication and secondly it implies fame and repute. The combination of the flame of light and the conch shell signifies this attribute of university education.

The two sheaves of paddy represent prosperity. It may be economic prosperity, it could also encompass social, cultural and even scientific and technological prosperity. There is yet another meaning attached to the two sheaves of paddy since it is identical of the agrarian society which is prevalent in the Northwestern Province of Sri Lanka.

The lion at the top of the crest is an articulate expression, that ours is a university of national magnitude. Our university, as any other University of Sri Lanka, is the pride of the nation – a fact the lion on the top of the logo symbolizes.

The University Flag

The University Colours	Gold
	Maroon

Faculty Colours

Agriculture and Plantation Management	Green
Applied Sciences	Orange
Business Studies and Finance	Maroon
Livestock, Fisheries and Nutrition	Light Blue
Technology	Yellow
Medicine	Purple

The University Song

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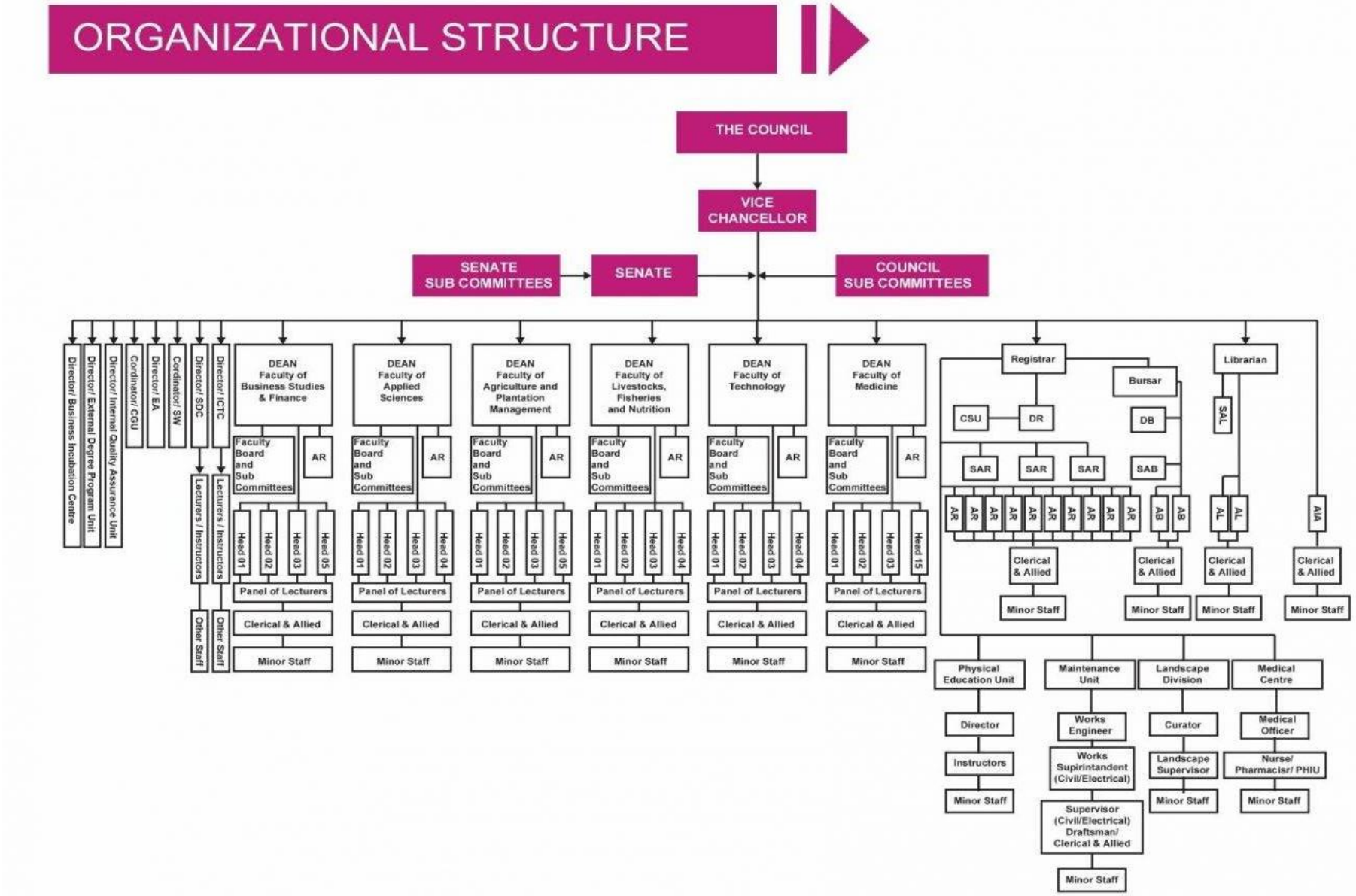
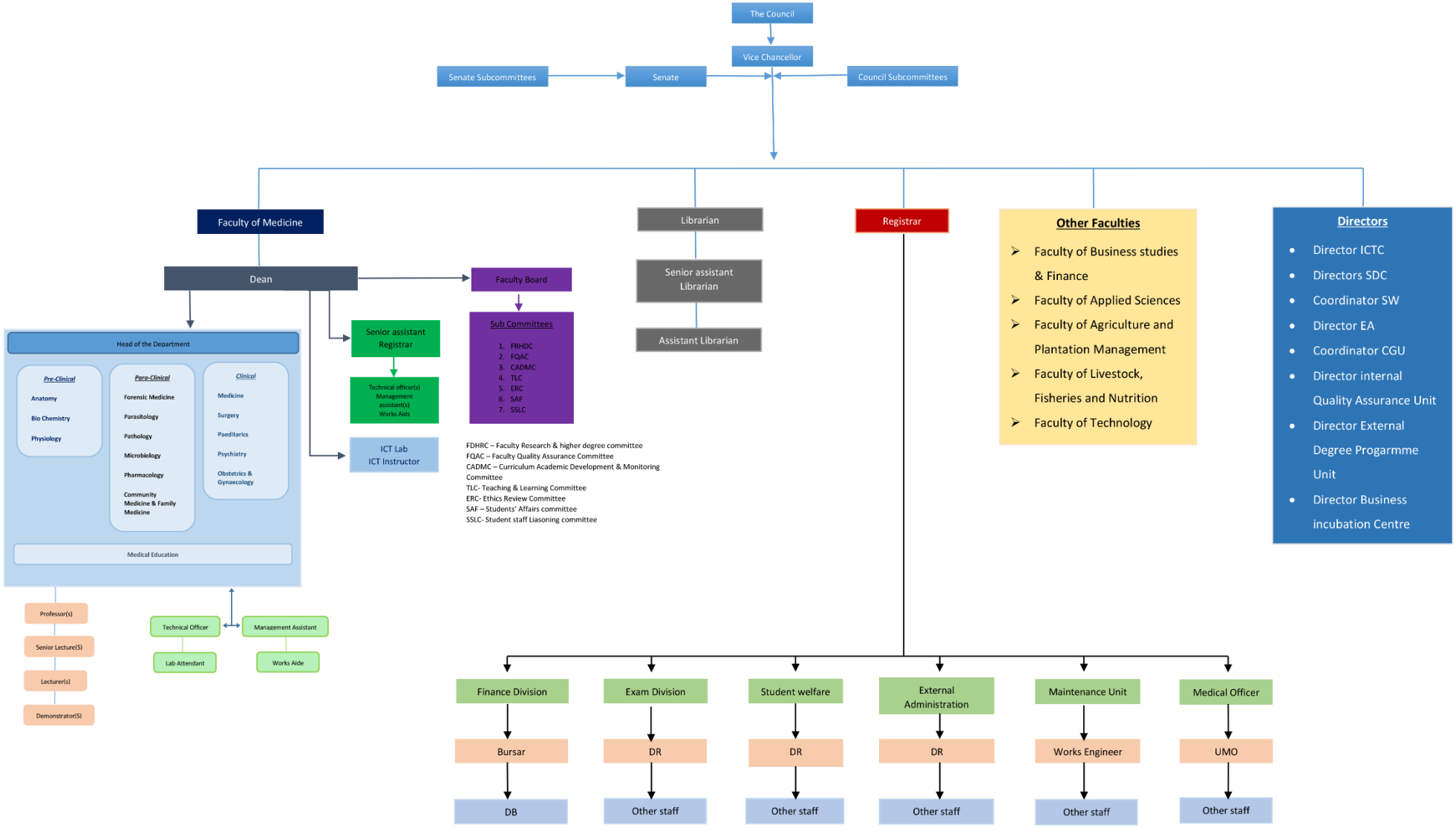
Organization of the University



Faculty Organogram

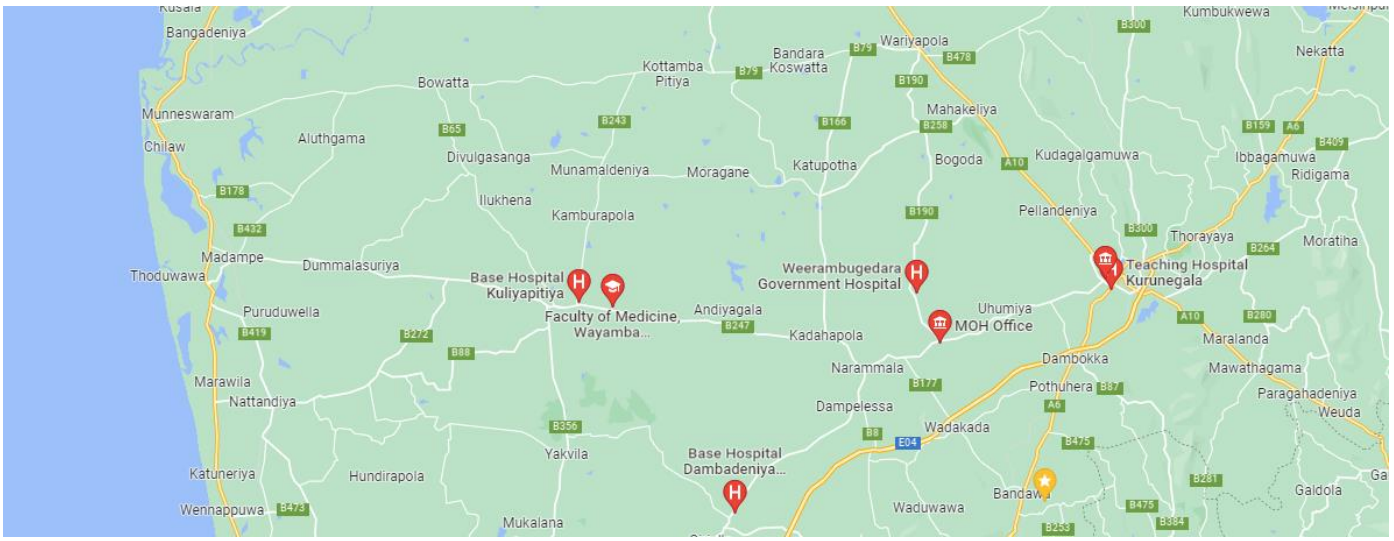


FACULTY OF MEDICINE

Location

Faculty of Medicine, Wayamba university of Sri Lanka Located at Labuyaya in the Kurunegala district.

- https://goo.gl/maps/8r3z37qE42tnT1Y6A



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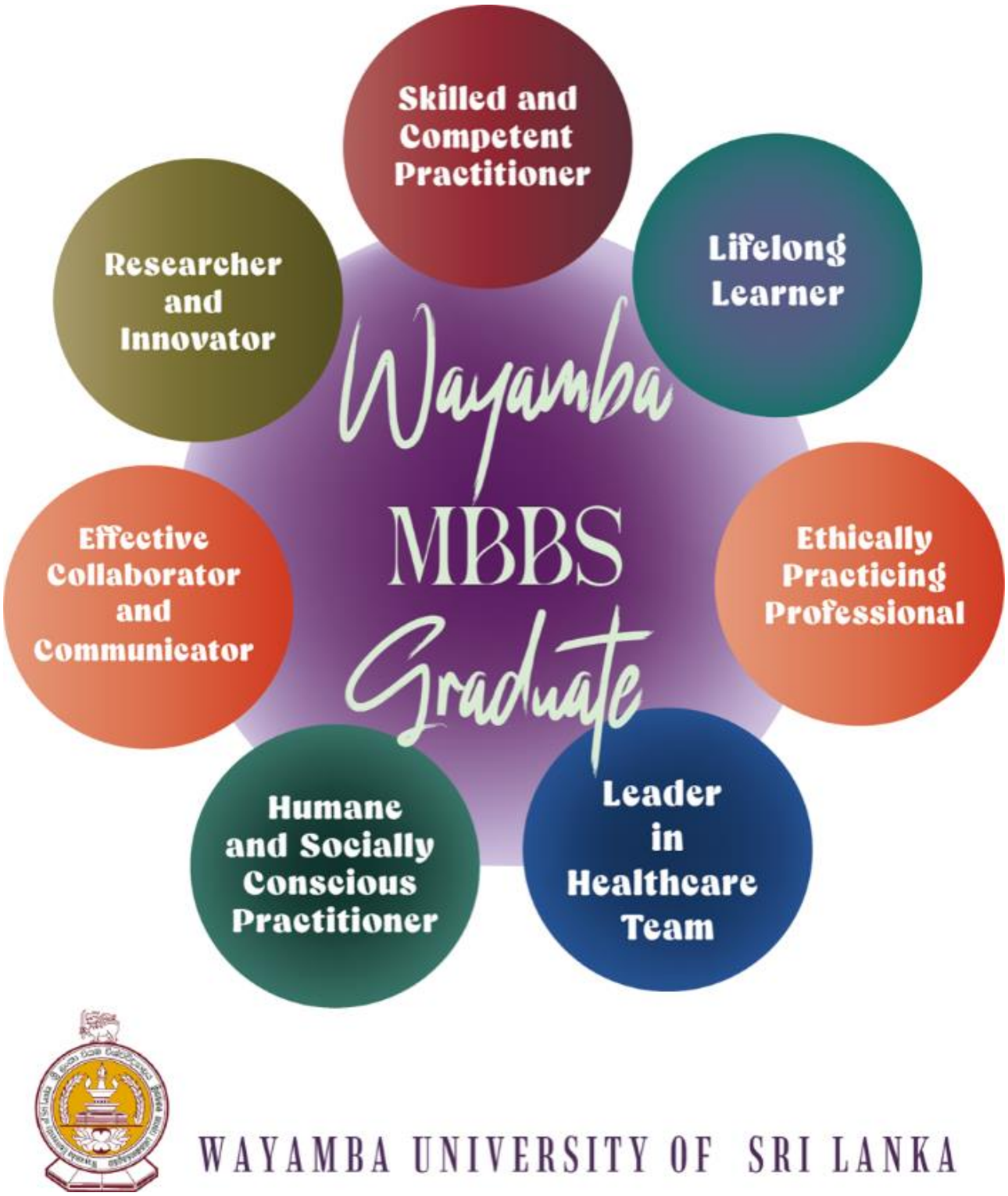
Graduate Profile



History of the Faculty

The faculty of Medicine, Wayamba University of Sri Lanka was established in 2019 in Labuyaya, Kurunegala. The faculty enrolled the inaugural batch of students in 2019, while being located temporarily in the Kuliyapitiya premises. The faculty moved to the newly built state-of-the art complex in 2020.

General Information

ADDRESS

Faculty of Medicine

Wayamba University of Sri Lanka

Kuliyapitiya

60200

Sri Lanka

EMAIL: deanfm@wyb.ac.lk

sarfom@wyb.ac.lk

PHONE: 037-3138252

WEBSITE: https://fom.wyb.ac.lk/

Panel of Lecturers

Name of academic department / division/unit	Name	Designation	Highest academic or professional qualification
Anatomy	Dr K.M.Chandimal	Senior Lecturer	PhD
	Dr N.Gunaratna	Senior Lecturer	MS
	Prof. Anthony	Senior Lecturer	MS
	Dr S Inamaluwa	Senior Lecturer	MBBS
	Dr Shahen Weerapana	Lecturer (Probationary)	MBBS
	Dr MAAE Wickramaratna	Lecturer (Probationary)	MBBS
	Dr Waruni Konara	Lecturer (Probationary)	MBBS
Physiology	Prof AS Dissanayake	Professor	MD
	Dr RAN Ranatunga	Senior Lecturer	M.Phil.
	Dr M Muthuthamby	Lecturer (Probationary)	MBBS
	Dr C B Karunaratna	Lecturer (Probationary)	MBBS
	Dr T D Herath	Lecturer (Probationary)	MBBS
	Dr D Jayasingha	Lecturer (Probationary)	MBBS
Biochemistry	Dr S Jeewathayaparan	Senior Lecturer	PhD
	Dr N S Thilakaratna	Senior Lecturer	PhD
	Dr D Kekulandara	Senior Lecturer	PhD
Pathology	Dr T. Somarathna	Senior Lecturer	MD
	Dr T Kumarasiri	Lecturer (Unconfirmed)	MD
	Prof C N Ratnatunga	Professor	PhD
	Dr D Perera	Senior Lecturer	MD
Pharmacology	Prof Y. Illangasekera	Professor	PhD
	Dr U. Dangahadeniya	Senior Lecturer	MD
	Dr T Senewiratna	Senior Lecturer	MD
	Dr A Eriyawa	Lecturer (Probationary)	M.Sc
Community Medicine &	Prof S Pathmeswaran	Professor	MD
	Dr P G Amerasingha	Consultant Community Physician	MD

Family Medicine	Dr D M S Manori	Lecturer (Unconfirmed)	MD
	Dr D Punyadasa	Lecturer (Unconfirmed)	MD
	Prof. RPJC Ramanayake	Professor	MD
	Dr Dinusha Perera	Senior Lecturer	MD
	Dr RAPJMS Rupasingha	Senior Lecturer	MD
	Dr A H W De Silva	Senior Lecturer	MD
	Prof TSP Samaranayake	Professor	MD
Forensic Medicine	Prof K A S Kodikara	Professor	MD
	Dr K Senanayake	Consultant Judicial Medical Officer	MD
	Dr A Jayasena	Consultant Judicial Medical Officer	MD
Microbiology	Prof A Jennifer Perera	Emeritus Professor	MD
	Prof Enoka Corea	Professor	PhD
	Dr K Bandara	Lecturer (Probationary)	MBBS
	Dr M Wickremasingha	Lecturer (Probationary)	MBBS
Parasitology	Prof S Wickremasingha	Professor	PhD
	Dr MAAE Wijayasekara	Lecturer (Probationary)	MBBS
	Dr N K Jayakody	Lecturer (Probationary)	MBBS
Medicine	Prof D Madegedara	Professor	MD
	Dr P G C S Bowatte	Senior Lecturer	MD
	Prof U Ralapanawa	Professor	MD
	Dr R Dassanayake	Consultant Nephrologist	MD
Surgery	Dr AHMGB Abeysinghe	Senior Lecturer	MS
	Dr Niroshan Jayarathne	Consultant Orthopaedic Surgeon	MS
	Dr T Thoradeniya	Consultant Neuro Surgeon	MS
	Dr Sohan Perera	Consultant Urological Surgeon	MS
	Dr T Aravinthan	Consultant Urological Surgeon	MS
	Dr Dasun de Alwis	Consultant Orthopaedic Surgeon	MS
	Dr SMP Manjula	Senior Lecturer	MS
Paediatrics	Prof K P J Perera	Chair Professor	MD
	Dr P D Burhan	Senior Lecturer	MD
	Dr C Nissanka	Lecturer (Probationary)	MBBS

Obstetrics & Gynaecology	Prof C Ratnayake	Professor	MS
	Dr H Ranaweera	Consultant Obstetrician and Gynaecologist	MD
	Dr C Gihan	Senior Lecturer	MD
	Dr B J B Alagoda	Consultant Obstetrician and Gynaecologist	MS
	Dr S Uduwerella	Consultant Obstetrician and Gynaecologist	MS
Psychiatry	Dr ULNS Liyanage	Senior Lecturer	MD
	Dr. U Hewawitarana	Consultant Psychiatrist	MD
	Dr. H M T B Rathnayake	Consultant Psychiatrist	MD
	Dr. Jayamal De Silva	Consultant Psychiatrist	MD
	Dr. Roshan Fernando	Senior Lecturer	MD
	Dr. Amila Isuru	Consultant Psychiatrist	MD
	Dr. S Amarasinghe	Consultant Psychiatrist	MD
	Dr. Dinusha Sirisena	Consultant Psychiatrist	MD
	Dr. D Rupasinghe	Consultant Psychiatrist	MD
	Dr. Angelo de Alwis	Consultant Psychiatrist	MD
	Dr Susil Kulatilake	Consultant Psychiatrist	MD
	Dr M Sumanathissa	Consultant Psychiatrist	MD
Dean Office	Dr. G G Chathuranga	ICT Instructor	PhD
Department of English Language and Teaching	Dr. KM Disanayake	Senior Lecturer	PhD
	Mr. Ruwini Wijenayake	Lecturer(Probationary)	BA

Detailed Learning Outcomes of the Degree Programme

The broad intended learning outcomes pertaining to MBBS program

Core values	Intended learning outcomes
1. Commitment to providing optimum health care, advancement, and excellence	The graduate should be able to: • Apply scientific principles and a multidisciplinary body of knowledge to the diagnosis, management, and prevention of clinical problems. • Explain the variation in the expression of health and disease through critical evaluation of biomedical research. • Demonstrate the highest level of efficiency in data collection, analysis and use of conclusion for prevention, diagnosis, and management of diseases. • Seek expert advice and guidance when a need arises. • Respond to emergencies immediately and appropriately. • Demonstrate intellectual curiosity in updating and upgrading new knowledge and skills with a view to
2. Leadership and teamwork	• Take leadership (initiate) in optimal patient care and institutional improvement. Recognize and respect the capabilities and ideas of members of the team.
3. Respect for diversity	• Recognize the ethical, social, religious, and economic diversity of populations under one's care and deliver healthcare in a manner acceptable to each individual of
4. Commitment to social and public health	• Identify immediate, direct, and underlying causes of ill health and take remedial measures within one's capacity. • Be familiar with the important preventive and rehabilitative programs implemented by government sector and non- governmental organizations.

5. Effective Collaboration and communication	• Effectively mobilize, organize, and implement patient care and improve organizational strategies with other relevant governmental sectors. • Develop the confidence and trust of the patient and ensure the patient has an informed choice in receiving medications. • Acknowledge the role of all health staff in the institution and ensure a patient friendly health care delivery system • Use information and communication technology to enhance the quality of care, health promotion and professional
6. Ethical behavior and professionalism	• Display compassion, empathy, honesty, and integrity in relationships with patients, families, and the medical communities. • Adhere to ethical code of conduct for medical officers. • Self-appraise one's knowledge and practice of medicine, receive and impart constructive appraisal from healthcare professionals, caregivers, patients, and families. Attend to medico-legal matters impartially and efficiently.

Structure of Five-Year Programme

Year	Semester	Module Code	Module title	# of Credits	Contribution for 2nd / 3rd MBBS %
1	I	MED1113	Communication and Information Technology	3	2
		MED1124	Foundation	4	3
		MED1135	Body Tissues & Locomotor System I	5	4
		MED1143	Blood and Immune System I	3	3
			Total Credits for Semester I	**15**	**12**
	II	MED1213	Cardiovascular System I	3	5
		MED1223	Respiratory System I	3	5
		MED1234	Gastrointestinal & Hepatobiliary System I	4	3
		MED1245	Nutrition and Metabolism	5	3
			Total Credits for Semester II	***15***	***16***
			Credits from Year I	**30**	
			(Cumulative credits)	**30**	
2	I	MED2112	Renal and Urinary System I	2	4
		MED2122	Endocrine System I	2	4
		MED2133	Reproductive System I	3	4
		MED2145	Neurology Module I	5	5
		MED2153	Basic Sciences for Clinical Practice	3	
			Total Credits for Semester	***15***	***17***
			Cumulative credits of Pre-Clinical Phase	***45***	***45***
			Second MBBS Comprehensive		**55**
	II	MED2213	Foundation in Pathology	3	6
		MED2223	Foundation in Pharmacology	3	6
		MED2233	Infection module I	3	6
		MED2243	Blood and Immune System II	3	5
		MED2252	Community Medicine I	2	4
			Pre-professorial Clinical		
			General Medicine	1.25	-
			Surgery	1.25	-
			Obstetrics & Gynaecology	1.25	-
			Paediatrics	1.25	-
			Total Credits for Semester	19	27
			Credits from Year II	34	-
			(Cumulative credits)	**64**	**27**

3	I	MED3112	Community Medicine II	2	4
		MED3123	Cardiovascular System II	3	5
		MED3132	Respiratory System II	2	4
		MED3143	Gastrointestinal System II	3	6
		MED3153	Infection II	3	6
			Pre-Professorial Clinical		
		Short Appointments 1		4	-
			Total Credits for Semester	*17*	*25*
	II	MED3212	Community Medicine III (Research)	2	4
		MED3223	Endocrine System II	3	6
		MED3232	Renal and Urinary system II	2	4
		MED3243	Reproductive System II	3	5
		MED3252	Forensic Medicine I	2	4
			Pre-Professorial Clinical		
		General Medicine		1.25	-
		Surgery		1.25	-
		Obstetrics & Gynaecology		1.25	-
		Paediatrics		1.25	-
			Total Credits for Semester	*17*	*23*
			Credits from Year III	34	48
			(Cumulative credits)	98	75
	I	MED4113	Neurology Module II	3	5
		MED4123	Body Tissue & Locomotor System II	3	5
		MED4132	Mental Health	2	4
		MED4143	Forensic Medicine II	3	5
		MED4152	Community Medicine IV	2	4
		MED4161	Primary Care & Family Medicine	1	2
			Pre-Professorial Clinical		
		Short Appointments 2nd		4	
		Family attachment		1	
			Total Credits for Semester	*19*	*25*
	II	Integrated Module		10	
		Medicine Surgery 3rd Rotation		3	

		Total Credits for Semester	*13*	
		Credits from Year IV	32	
		(Cumulative credits)	130	
		Personal Professional Development (PPD) & Professionalism in Clinical Practice (PCP)	3	
		Continuous stream from semesters 1 to 8		
		Professorial Clinical		
5		Medicine	3	
		Obstetrics and Gynaecology	3	
		Paediatric	3	
		Surgery	3	
		Psychiatry	2	
		Medicine	4	
		Obstetrics and Gynaecology	4	
		Paediatric	4	
		Surgery	4	
		Psychiatry	3	
		Credits from Year V	**33**	
Cumulative credits for MBBS Degree Program			**166**	

Summary of the Assessment

Year	Semester	Subjects, Module/s	Assessment type
1	I	Information Technology and Medical English Foundation Body tissues and locomotor system I Blood and Immune system I	Continuous Assessments & End-semester Exam
1	II	Cardiovascular system I Respiratory system I Gastrointestinal & Hepato-biliary system I Nutrition and Metabolism	Continuous Assessments & End-semester Exam
2	I	Renal and urinary system I Endocrine system I Reproductive system I Nervous system I Basic Sciences for Clinical Practice	Continuous Assessments & End-semester Exam
Second MBBS Examination, (main and supplementary)			
2	II	***Paraclinical Module*** Foundation to Pathology, Foundation to Pharmacology Infection module -1, Blood and Immune 2, Community Medicine -1	Part I of Module Based Third MBBS Examination (Continuous Assessments & End-semester Exam)
		Pre-professorial Clinicals General Medicine Surgery Obstetrics & Gynaecology Paediatrics,	End appointment
3	I	***Modules*** Community Medicine-2 Cardiovascular system -2 Respiratory system -2 Gastro- Intestinal system -2 Infection Module 2	Part II of Module Based Third MBBS Examination (Continuous Assessments & End-semester Exam)
		Pre-professorial Clinicals *Short Appointments 1*	End appointments
3	II	**Modules:** Community Medicine -3 (Research) Endocrine system module -2 Renal and Urinary system -2 Reproductive system 2 Forensic Medicine module -1	Part III of Module Based Third MBBS Examination (Continuous Assessments & End-semester Exam)
		Pre-Professorial clinicals *Short Appointments 2*	End appointments
4	I	***Modules:*** Neurology – 2 Body Tissue & Locomotor system -2 Mental Health Module Forensic Medicine module -2 & 3	Part IV of Module Based Third MBBS Examination

		Community Medicine -4 Primary Care & Family Medicine	(Continuous Assessments & End-semester Exam)
		Pre-professorial Clinicals General Medicine Surgery Obstetrics & Gynaecology Paediatrics Short Appointments	End appointment
4	II	***Pre-Professorial clinicals*** General Medicine Surgery Short Appointments	End appointment
		Vertical Integration phase: General Medicine Surgery Obstetrics & Gynaecology Paediatrics Psychiatry	Assessed at Final MBBS Examination
		Personal Professional Development (PPD) Continuous stream from semesters 1 to 8	Portfolio based formative assessment
5		***Professorial Clinicals*** General Medicine Surgery Obstetrics & Gynaecology Paediatrics Psychiatry (5 appointments - 8 weeks each)	End appointment
		Professionalism in Clinical Practice (PCP) Continuous stream spanning last 18 months	Portfolio based formative assessment
Final MBBS Examination, (main and supplementary)			

The Pre-Clinical Sciences

INTRODUCTION

Preclinical phase focuses on the normal structure and function of the human being i.e. Human Biology. Modules are developed based on the body systems. Three main subjects (Anatomy, Physiology, and Biochemistry) are horizontally integrated using system-based modules. Application and clinical relevance of basic sciences are highlighted in each module. The last module (subject) encompasses basic sciences and clinical relevance of all three subjects and focuses on vertical integration with paraclinical subjects/modules.

The following description, given under three disciplines, namely Anatomy, Biochemistry and Physiology is given for better understanding of the spatial contribution and relevance of disciplines (subjects) to the system-based modules of the preclinical phase of the curriculum of the Wayamba University of Sri Lanka.

ANATOMY

The subject of anatomy is taught over three semesters included in 11 horizontally integrated modules. The components of anatomy are: macroscopic anatomy, microscopic anatomy, developmental anatomy and genetics. All components of anatomy focus on understanding the organization and structure of the human body and regions or systems in order to understand the functions, anatomical basis of the common disorders, diagnostics and management. Structure should include both gross anatomy, and microscopic anatomy. Where relevant, the development and development anomalies and genetic basis are emphasized. Under macroscopic anatomy, the gross morphology of body regions/systems are learned. Surface anatomy and radiological anatomy are included under macroscopic anatomy.

BIOCHEMISTY

Biochemistry is the study of the chemical basis of life which encompasses the application of chemistry to the study of biological processes at the cellular, molecular and sub-molecular levels. Biochemistry for the medical professions is a "physiological" chemistry; the chemistry needed to understand the structure and functions of the human body and their malfunction in disease. Analytical knowledge on biochemistry helps to understand the molecular basis of diseases, current therapies, and action of new drugs. In future,

biochemistry in its broadest form which includes nucleic acid and study of gene will possible make a significant component of newer therapies e.g. gene therapy to prevent organ failure rather than organ transplants. Pharmacogenomics and nutritional genomics will possible create a basis for designer treatments customized to an individual's genetic makeup.

To understand all this it is essential to know functional interactions between metabolic pathways, organs and tissues. A good knowledge of biochemistry enables a student to understand normal healthy life and disease at molecular level. Content of the subject of Biochemistry to eleven modules are designed to cover the aspects of biochemistry relevant to medicine.

PHYSIOLOGY

The subject of human physiology is the study of the function of the human body. It integrates the functions of cells, tissues, organs, and organ systems into one whole human body. It explains how the human being adapts to the changes in the internal and external environment. Thus, Physiology as a discipline links science, medicine, and health.

At the end of the preclinical phase, in relation to Physiology the students will be able to draw independent rational conclusions regarding the normal functions and the basis of deranged functions of the human body in the further study of medicine.

Contribution of marks for the Second MBBS Barrier Examination

Semester	Modules	Subcomponent/s	Percentage per module
One	Communication and Information Technology	MCQ/SEQ/Practical Exam	2%
	Foundation	MCQ/SEQ/OSPE/CA/VIVA	3%
	Body tissues and locomotor system-I	MCQ/SEQ/OSPE CA/VIVA	4%
	Blood and Immune system-I	MCQ/SEQ/OSPE/CA/VIVA	3%
Two	Cardiovascular system -I	MCQ/SEQ/OSP / CA/VIVA	5%
	Respiratory system -I	MCQ/SEQ/OSPE/CA/VIVA	5%
	Gastrointestinal system and Hepatobiliary system-I	MCQ/SEQ/OSPE/CA/VIVA	3%
	Nutrition and Metabolism	MCQ/SEQ/OSPE/CA/VIVA	3%
Three	Renal and urinary systems-I	MCQ/SEQ/OSPE/CA/VIVA	4%
	Endocrine system-I	MCQ/SEQ/OSPE/CA/VIVA	4%
	Reproductive system-I	MCQ/SEQ/OSPE/CA/VIVA	4%
	Neurology Module-I	MCQ/SEQ/OSPE/CA/VIVA	5%
Total from Modules for Second MBBS Examination (A)			**45%**
Second MBBS Comprehensive Examination			**Percentage per Subject**
1. Basic Sciences for Clinical practice I - (Anatomy) 2. Basic Sciences for Clinical practice II - (Physiology) 3. Basic Sciences for Clinical practice III - (Biochemistry)			20% 20% 15%
Total from Second MBBS Comprehensive Examination (B)			**55%**
Total for the Second MBBS Examination (A (45%) + B (55%))			**100%**

Paraclinical Sciences

The students who successfully complete the Second MBBS examination will study the paraclinical sciences modules from the fourth to seventh semesters.

Paraclinical sciences are the bridging component of existing basic sciences knowledge of a medical graduate to advanced clinical sciences. This component enables a student to apply the existing scientific knowledge on human anatomy, physiology and biochemistry to understand and explain the derangements of human body and its functions and to understand the clinical relevance. Moreover, this phase consists of preventive and medico legal aspects of medical curriculum. Mastering paraclinical sciences enables a first day intern doctor to be competent on clinical reasoning and to treat patients efficiently.

Paraclinical sciences comprises of following subjects,

1. Pathology
2. Pharmacology
3. Microbiology
4. Parasitology
5. Community Medicine and Family Medicine
6. Forensic Medicine

Pathology

Pathology is the scientific study of the mechanism for causation of diseases. It is a discipline that provides the knowledge and skills to understand and explain the basis of clinical signs and symptoms. Pathology incorporates, core subject knowledge and evidence-based medicine. Pathology includes the disciplines of histopathology, haematology and chemical pathology. Pathology is taught during fourth to seventh semesters.

Pharmacology

Pharmacology provides the scientific basis of drug action at the molecular, cellular, biochemical, and physiological level. Therapeutics links the combined knowledge of disease and how pharmaceutical agents affect it. Understanding the principles of clinical pharmacology and therapeutics is important for safe, effective and rational prescribing.

Microbiology and Parasitology

Microbiology and parasitology will study the microorganisms (bacteria, fungi, viruses and parasites) and the diseases caused by them in humans. During this course, the

students will acquire basic knowledge and skills to identify, diagnose, manage, prevent and control/eliminate infectious and parasitic diseases and maintain the elimination of parasitic diseases found in Sri Lanka.

Community Medicine and Family Medicine

Community Medicine is the study of science and art of preventing diseases and promoting health through the organized efforts and informed choices of individuals, communities, society and public and private organizations. Family Medicine will teach students how to apply the concepts and principles of medicine in the management of patients at the level of primary care.

Forensic Medicine

Forensic Medicine is the study of how medical science is applied in the resolution of legal issues pertaining to the human body during life or after death. As medical experts, doctors have a professional responsibility to provide their knowledge and skills to address various medicolegal issues that arise in the administration of justice. They are expected to know the legal and ethical principles that govern clinical practice especially with regards to patients' rights and privileges.

Para-clinical sciences will be delivered in twenty-one modules (Table-1). These modules would incorporate whole content of six paraclinical subjects mentioned above and theoretical aspects of five clinical subjects (Medicine, Surgery, Paediatrics, Obstetrics and Gynaecology, Psychiatry), in appropriate areas to enhance understanding of para-clinical subjects and to teach clinical relevance.

Modules on paraclinical sciences will be assessed at the end of each semester as module examinations, which constitutes the Third MBBS examination. The results of all the modules will be calculated according to their weightage of credit value of individual module and then cumulatively taken for the results of the Third MBBS examination at the end of 7^{th} semester.

The following table describe the distribution of modules through the four semesters and their individual credit values, hence the contribution of relative marks to the cumulative third MBBS examination

Mark Distribution of the Third MBBS Examination

Year	Semester	Module Code	Module title	# of Credits	Contribution for 3rd MBBS %
2	II	MED2213	Foundation in Pathology	**3**	**6**
		MED2223	Foundation in Pharmacology	**3**	**6**
		MED2233	Infection module I	**3**	**6**
		MED2243	Blood and Immune System II	**3**	**5**
		MED2252	Community Medicine I	**2**	**4**
3	I	MED3112	Community Medicine II	**2**	**4**
		MED3123	Cardiovascular System II	**3**	**5**
		MED3132	Respiratory System II	**2**	**4**
		MED3143	Gastrointestinal System II	**3**	**6**
		MED3153	Infection II	**3**	**6**
	II	MED3212	Community Medicine III (Research)	**2**	**4**
		MED3223	Endocrine System II	**3**	**6**
		MED3232	Renal and Urinary system II	**2**	**4**
		MED3243	Reproductive System II	**3**	**5**
		MED3252	Forensic Medicine I	**2**	**4**
	I	MED4113	Neurology Module II	**3**	**5**
		MED4123	Body Tissue & Locomotor System II	**3**	**5**
		MED4132	Mental Health	**2**	**4**
		MED4143	Forensic Medicine II	**3**	**5**
		MED4152	Community Medicine IV	**2**	**4**
		MED4161	Primary Care & Family Medicine	**1**	**2**
Total				**53**	**100**

*MED: Medicine, 1st digit: Year, 2nd digit: Semester within the year, 3rd digit: Module number within respective semester, 4th digit: Credit value of the module.

Similarly, clinical and field-based teaching of para-clinical subjects will be organized as clinical/ field-based rotations which would run parallel to above mentioned para-clinical modules.

Outline of the Clinical Training Programme

Clinical training programme of Wayamba University is spread over three and a half years (approximately parallel to fourth to tenth semesters) and are not module based. Clinical rotations during fourth to seventh semesters would unfold along with the paraclinical programme and the last eighteen months will be exclusively clinically oriented.

Teaching-learning activities of the pre-professorial phase clinicals (spanning two and a half years - parallel to semesters 4 to 8) will essentially be conducted in health care institutions under health ministry consultants. This includes clinical rotations of para-clinical subjects; Pathology, Microbiology, Community Medicine & Family Medicine, and Forensic Medicine. Training will take place in wards, clinics, operating theatres, laboratories, labour rooms and primary care institutions. Majority of such training will be conducted in relevant fields at Teaching Hospitals Kuliyapitiya and Kurunegala. Public health training venue would be Regional Director of Health Services (RDHS) office at Kurunegala and its different institutions. The students will be directed to either hospital depending on the availability of relevant specialties while considering the overlap between subsequent medical batches.

The fifth (final) year is essentially Professorial Clinical rotations, which will be conducted by University Clinical Consultants (lecturers). Professorial Unit is expected to be established at Teaching Hospital, Kurunegala.

Novel and evidence-based teaching – learning activities in clinical training will be practiced namely, small group teaching, case based teaching, and self-learning and critical thinking, aided by ward classes, skills lab training, patient encounters, case presentations etc. This is also aimed at directing students to a lifelong learning habit.

The clinical learning outcomes are assessed at the end of each rotation by supervising health ministry consultants and university academics in an identified format and through the assessment of a clinical logbook / portfolio maintained by students. At the end of fifth year, subject based Final Examination for MBBS will be held to assess overall clinical knowledge and preparedness to become an Intern doctor.

Outline of Clinical Rotations

Teaching learning Activities:

1. Mornings – (4 hours a day for 5 - 6 days a week) hospital/Health Institute/field based clinical work
2. Evenings/night Casualty admissions: approx. 6 hours per week in final year
3. Weekday evenings, case - based small group clinical teaching (CBL) 2-3 hours/day.

General Medicine and related subspecialties.

Specialty	Duration	Credits
General Medicine 1st Rotation	4 weeks	01
General Medicine 2nd Rotation	4 weeks	01
General Medicine 3rd Rotation	4 weeks	01
Cardiology	2 weeks	0.5
Rheumatology and Rehabilitation	2 weeks	0.5
Neurology	2 weeks	0.5
Nephrology	2 weeks	0.5
Sexually Transmitted Diseases	2 weeks	0.5
Dermatology	2 weeks	0.5
Pulmonology	2 weeks	0.5
Elective (Oncology / Endocrinology / other)	2 weeks	0.5
Professorial Appointment (year 5)	8 Weeks	3
Sub Total	**36 weeks**	**10**

Obstetrics and Gynaecology

Speciality	Duration	Credits
Obstetrics & Gynaecology 1st Rotation	4 weeks	1.25
Obstetrics & Gynaecology 2nd Rotation	4 weeks	1.25
Professorial Appointment (year 5)	8 Weeks	3
Sub Total	**16 weeks**	**5**

Surgery and related sub-specialties

Specialty	Duration	Credits
General Surgery 1st Rotation	4 weeks	1.25
General Surgery 2nd Rotation	4 weeks	1.25
General Surgery 3rd Rotation	4 weeks	1.25
Orthopaedics	2 weeks	0.5
Urology	2 weeks	0.5
Anaesthesiology and Critical Care	2 weeks	0.5
Emergency and Trauma	2 weeks	0.5
Otolaryngology	2 weeks	0.5
Ophthalmology	2 weeks	0.5
Neurosurgery	2 weeks	0.5
Radiology	2 weeks	0.5
Elective (Vascular surgery/ Cardiothoracic / Oncosurgery / Plastic surgery / Paediatric Surgery)	4 weeks	1
Professorial Appointment (year 5)	8 Weeks	3
Sub Total	**38 weeks**	**11**

Paediatrics

Speciality	Duration	Credits
Paediatrics 1st Rotation	4 weeks	1.25
Paediatrics 2nd Rotation	4 weeks	1.25
Professorial Appointment (year 5)	8 Weeks	3
Sub Total	**16 weeks**	**5**

Psychiatry

Specialty	Duration	Credits
Psychiatry 1st Rotation	4 weeks	1.25
Professorial Appointment (year 5)	8 Weeks	3
Sub Total	12 weeks	4

Para-clinical Rotations

Specialty	Duration	Credits
Public Health clinical and field rotation	2 weeks	0.5
Family Medicine	2 weeks	0.5
Family Attachment	1 day a month for 10 months	1
Forensic Medicine	2 weeks	0.5
Pathology/haematology/Transfusion Medicine / microbiology	2 Weeks	0.5

Course Code Notations:

MED	5	Clin	1	7
Faculty	Year	Phase (Clinical)	Subject number	Credits

Student Counselling Service

The student counselling service of the Wayamba University of Sri Lanka provides services and programs which promote the personal development and psychological well-being of students. It helps to develop an environment which ensures students' educational attainments. Students will have the opportunity to privately and confidentially discuss their personal, psychological, social and financial issues or any other difficulties faced during their university education, with the student counselors and obtain advice and guidance.

Student Counsellor:

Dr. Priyanga Burhan
Faculty of Medicine
037-3139795
Web: https://fom.wyb.ac.lk/index.php/students-main/fomcounselling/

Deputy Proctor:

Dr. KM Chandimal
Faculty of Medicine
037-3139795

Information and Communication Technology (ICT) Centre

Information Communication Technology (ICT) Centre is the primary provider of computing and information technology to the Kuliyapitiya Premises. It provides IT training programs for students, staff, and external professionals to improve IT skills. To ensure the smooth proceeding of educational and research activities, the centre also offers comprehensive services using the latest advances in information technology. These services include running servers (mail, web, and Learning Management Systems), **maintaining the networks that form the university's IT infrastructure,** promoting e-learning initiatives such as computerization of teaching materials and the use of learning management systems, and providing support to departments and units in order make their information and data available online.

ICT provides its fullest cooperation to use the facilities on every weekday from 8.00am to 8.00pm and 8.00am to 4.00pm on Saturdays.

The Library

The Main Library is situated in the administrative complex of the Wayamba University of Sri Lanka. The Library commenced as an affiliated college library. In 1999 the library became an independent national university library. Library consists of three sections – lending, reference, computer services. The Faculty of medicine has separate library in Labuyaya Premises.

OPENING HOURS (Main)

Monday - Friday: 8.00 am - 6.30pm
Saturday: 8.00 am - 4.30pm (Exam period only)

The Library is closed on Sundays, public holidays and special University holidays. The closing time of the library is extended to 8.00 pm during the university examination periods.

OPENING HOURS (Labuyaya)

7 Days of Week: 8.00 am - 10.00pm

There are two Divisions, two Units, three Sections and one Special Collection in the main library:

1. Reader Services Division
2. Acquisitions, Cataloguing and Classification Division
3. Computer Unit
4. Binding Unit
5. Reference Section
6. Lending Section
7. Periodicals Section
8. Special collections

LIBRARY SERVICES

1. Borrowing facility
2. Reference facilities including the use of computer facilities
3. OPAC service
4. Web page service -includes new arrivals special notice etc.
5. Referral service
6. Photocopying facility
7. SLSTINET Service
8. Inter library loan facilities
9. Electronic media services
10. Content and paper clipping service
11. Bibliography and indexing service
12. Extension services within and outside the University
13. Library orientation and Learning Skills Development

The collection of periodicals in print version is about 25 titles and all university scholars, researchers and undergraduates are provided access to online database. University undergraduates can freely access this web based information system.

Department Of English Language Teaching (DELT)

Department of English Language Teaching (DELT) is a department that conducts various programs to improve the English language proficiency of the undergraduates, the University staff and the outside community. The department uses all its human and physical resources to provide effective learning activities leading to a mastery of all facets (listening, speaking, reading and writing) of English as a second language. On acquiring effective communication skills through the courses offered by the DELT, the students will develop a greater confidence as professionals in the job market and also will learn to think critically about the world around them.

The Health Centre

There are Three Medical Centers (Kuliyapitiya, Labuyaya and Makandura) in Wayamba University of Sri Lanka. All Medical centers provide free access and good medical care to all students of the University. Students have to register at the Medical Centre prior to consulting the University medical officer. Registration has to be done by providing the students record book or identification card to the medical centre office. Medicines are issued free of charge.

OPENING HOURS

Monday to Friday: 8.00 am - 4.30 pm

MEDICAL CERTIFICATES

If a student is unable to attend lectures and/or practical classes due to an illness he/she should inform the University Medical Officer within two weeks. Students can seek medical care from a government or a registered private medical officer if they wish to. All medical certificates issued have to be scrutinized and approved by the University Medical Officer.

ILLNESS DURING EXAMINATION PERIOD

If a student is unable to sit for the exam due to an illness he/she should inform the Head of the Department immediately. The medical certificates obtained from outside hospitals should be submitted to the Faculty with the approval of the University Medical Officer.

PHARMACY

The two pharmacists in the indoor pharmacies issue all available drugs prescribed by the Medical officers.

PREVENTIVE HEALTH CARE

Two Public Health Inspectors (PHI) are responsible for the hygiene and sanitary aspects of the Campus.

AYURVEDIC CENTRE

The students and staff who wish to receive indigenous treatments and advices, an ayurvedic medical clinic is conducted at the medical centre of the Kuliyapitiya Main University Premises

OPENING HOURS Thursdays: 9.00 am - 4.00 pm

Physical Education Unit

The Physical Education is the key provider and the promoter of the best possible sports and recreation environment for the University Community. The main unit is located at the Kuliyapitiya Premises and two sports sub units are located at the Makandura and Labuyaya. All the administrative processes are handled by the main unit.

INFRASTRUCTURAL FACILITIES

- Indoor Stadium
- Fitness Centres
- Play Grounds
- Volleyball Court (outdoor)
- Basketball Court (outdoor)
- Carom Room
- Chess Room

Swimming pool facilities are provided in collaboration with the Physical Education unit in a location out of the campus. There are almost 32 sports events under 22 sporting categories facilitated by the department including Badminton, Baseball, Basketball, Carom, Chess, Cricket, Elle, Football, Hockey, Karate,

Road Races, Rugby, Netball, Swimming, Table Tennis, Taekwondo, Tennis, Track and Field, Volleyball, Weightlifting, and Wrestling. All sports goods and equipment are freely accessible to all university students and the staff with valid university identification for a given time of period.

SERVICES OF PHYSICAL EDUCATION UNIT

The Department of Physical Education operates across three key areas.

- Provide Infrastructure and Sports Facilities - management of sports and recreation facilities; indoor stadium, playgrounds, outdoor playing courts (basketball, volleyball), fitness centres, sports goods and gym equipment, sportswear.
- People Development - provide information, advice and education support to the persons involved in competitive sports and sports for recreation through services provided by the administrator, officials (IPE), coaches and volunteers.
- Organize Sports Programs and Participation of Students in Outside Tournaments - Inter Faculty Fresher's, Inter Faculty Championships, Inter University Championships and other competitive and recreational tournaments annually and facilitate students' participation in national and international competitions including South Asian, Asian and World University Games.

BANKING FACILITIES

Bank of Ceylon has University branches in the Faculty of Business Studies and Finance premises. It provides students with banking facilities. ATM machines are located at the entrance of the Faculty of Business Studies and Finance premises.

CANTEENS

The Wayamba University of Sri Lanka provides facilities to operate student canteens and staff canteens at both premises for the benefit of the University community. The service providers will be selected through National Competitive Bidding procedure for a one-year period.

The University canteen committee consisting of relevant stake holders of the University has been established to monitor the proper management and maintenance of the canteens facilities Electricity and water are provided free of charge to the service providers by the University to facilitate healthy meals at a minimum cost.

The canteen at Labuyaya currently meets the needs of the students in the hostel but it is planned to expand the services.

List of student and staff canteens operating at present are as follows;

Labuyaya Premises

I. Faculty Canteen

Kuliyapitiya Premises

I. Main Canteen – Faculty of Business Studies and Finance
II. Hostel Canteen
III. Staff Canteen

HOSTELS

Presently, the University has thirteen hostels in both premises. All the students from more than 30km distance will be provided with the hostel facilities. Labuyaya has two new hostels which can accommodate approximately 400 students.

All students who wish to apply for hostel accommodation should submit their applications by hand or registered post to reach the Assistant Registrar/Students' Registration and Welfare of the Kuliyapitiya premises before the due dates.

According to the Hostel Policy of the University, students whose permanent residence is more than 30km will be considered for hostel accommodation. The students from less than 30km will be considered if there are vacancies available. The criteria of selecting students, is as follows and 1st category will be filled at first and so on.

- 01stCategory - All first year students from more than 30 km distance
- 02ndCategory – All fourth year students from more than 30 km distance (including the students who are completing their degree programme within three years)
- 03rdCategory – All third year students from more than 30 km distance
- 04thCategory – All second year students from more than 30 km distance

The hostel fee for one academic year. This should be paid at the beginning of every academic year. Selected students should report to the hostel on the given date. If a student fails to report for accommodation within 7 days of the expected date the position will be granted to another student.

PHOTOCOPYING SERVICES

Following photocopying centre are being operated to enable the students to fulfill their requirements at reasonable rates.

- At the Labuyaya Canteen

STUDENTS' CENTRE

A student centre is available at the Kuliyapitiya premises and opened for all the students. Reservation of the Student Centre for a **specific purpose is done by the Students' Registration and Welfare** division on the request of relevant parties.

The Labuyaya premises have a student center on the first floor of the canteen building where students can study during their free time. The seating capacity is more than 100

Scholarships

MAHAPOLA SCHOLARSHIP

University Grants Commission selects students who satisfy the eligibility criteria to receive Mahapola scholarships in every admission year. The selected list of students will be notified to the university. This scheme is jointly funded from the Mahapola Trust Fund and University Grants Commission allocations.

Mahapola scholarships are awarded on two different bases, namely, merit scholarships and ordinary scholarships. Merit scholarships are awarded to the students who have scored highest marks at G.C.E. A/L examination and ordinary scholarships are awarded to the students from families of lower income levels.

Payments are made in 10 installments per academic year, and a student receives a sum of Rs.5050/- or Rs.5000/- per installment as merit or ordinary scholarship respectively.

Selected students are requested to mandate a bank account at any branch of Bank of Ceylon and to submit the details of the account to Students' Registration and Welfare Branch for payment arrangements. The payment will be made for all students who maintain good attendance at academic activities every month.

The Mahapola scholarship payment will be suspended if it is found to be a fraudulent signature by a student or a student is found guilty at disciplinary breechs.

BURSARY SCHOLARSHIPS

Bursary is another form of financial assistance given to needy students. Every student who gets enrolled at the University will be issued an application for Bursary. The students who satisfy the eligibility criteria given in the University Grants Commission Circular: 856 and 900 will be awarded the Bursary scholarships. Students who wish to apply for Bursary scholarships should complete the application forms and hand over to Grama Niladari of the division with all relevant documents enabling him/her to dispatch the same through the Divisional Secretary to reach Assistant Registrar/Students' Registration and Welfare (Kuliyapitiya premises) on or before the closing date.

Transferred Students are requested to instruct the earlier University to forward their bursary applications to this University. No duplicate applications are issued except for a loss of an application.

After processing the applications, acceptance letter along with a form is issued to the students who are eligible to receive the Bursary (according to the Selection Criteria) are requested to submit the completed attached form with the Bank of Ceylon savings account details of a student. A list of rejected students will be available at the Student Welfare Branch and students can verify and appeal with proof of changes in the income (retirement, death, pension etc. of parents/guardian)

Students are selected for merit or ordinary Bursary scholarship according to the marking scheme. Payments are made in 10 installments per academic year and a student selected for merit bursary will receive Rs.4000/- and a student selected for ordinary bursary will receive Rs.3900/- per installment from the University Grants Commission.

The payment will be made for all students who sign the signature sheet for Bursary Scholarship every month by crediting to the bank accounts. Students will be informed by notices about the dates on which these installments will be paid by the Student Affairs Branch.

Those who fail to sign the signature sheets before the dead line can appeal to obtain the relevant Bursary installments by forwarding a duly completed application.

The payment of Bursary/Mahapola scholarship to any student may be completely stopped or temporarily suspended for any one or more of the following reasons;

- If a student fails to pass any examination completely, provided however, that the Bursary may be paid to any student who has been referred at the first year examination and who is following the course of study prescribed for the second year.
- If a student does not pursue his studies diligently.
- If the student conducts himself/herself in an in disciplinary manner.

For any other valid reason which is to be decided upon at the discretion of the Vice Chancellor

WITHHOLDING FINANCIAL ASSISTANCE

A cancellation or suspension of financial assistance would befall on the students should they indulge in violation of student discipline, not maintain regular attendance, become eligible for more than one scholarship, get paid employment or not register for an academic year and not making signatures for two Mahapola installments continuously.

OTHER SCHOLARSHIPS

There are other scholarships awarded by institutions and individuals.

Applications for the following scholarships could be obtained from relevant institutions.

- Education Employees Cooperative Thrift and Credit Society Ltd. (EECTCS)
- Watawala Plantation
- Petroleum Corporation
- Sri Lanka Ports Authority
- Commercial Bank of Ceylon
- Government Officers Benefit Association
- Colombo Youth Buddhists Association
- Sri Lanka Police Central Welfare Council Benefit Scheme

Campus Societies

The application for organizing events by the Faculty Students' Unions / Societies should be forwarded to the Vice-Chancellor through the proper channel. The letter of approval will be issued by the Students Registration and Welfare division for the programmes approved by the Vice-Chancellor.

STUDENTS' UNIONS AND SOCIETIES

As per the Universities Act No.16 of 1978, By-Laws of the university and guidelines for students' societies the recognition of Student Unions, Societies and other Associations in the University shall be made with the approval of the Council. All Student Societies and other Associations should renew their registration in the University annually and submit annual financial statements for auditing.

Entertainment

Stage dramas are held at the Open Theater while cultural events, social events and other student activities are held in the Pandith Amaradewa Auditorium. A new auditorium at the Labuyaya premises is at its final stage of establishment

Whom to Contact

ORGANIZING EVENTS

Item	Designation and Division	Telephone
Reservation of Auditorium	SAR/DR - General Administration	037-2281151
Reservation of Students' Centre	SAR/DR Students' Registration and Welfare	037-2283167
Dancing Dresses (Ves Andum)		037-2283167
Transport Arrangements	SAR/DR - General Administration	037-2281151
Music Equipment	Assistant Registrars of Faculties	FAS -037-2283623 FBSF-037-2284215 FoT- 037-2283623

PHYSICAL HEALTH

Premise	Designation	Telephone
Kuliyapitiya	Medical Officer	037-2284779

SECURITY AND SAFETY

Premise	Designation	Telephone
Kuliyapitiya	Security Office	037-2283166

TRANSPORT FACILITIES

Premise	Designation	Division	Telephone	Fax
Kuliyapitiya	Assistant Registrar	General Administration	037-2281151	037-2284775

WELFARE RELATED MATTERS

Premise	Designation	Division	Telephone	Fax
Kuliyapitiya	Assistant Registrar	Student Welfare and Registration	037-2283167	037-2283167

By-Laws Governing the Examination Procedure of the Undergraduate Programme Leading To the Degree of Bachelor of Medicine and Bachelor of Surgery (MBBS).

Given below are the By-Laws made by the Council of the Wayamba University of Sri Lanka under Section 29 (I) and (J) read with Section 135(1) (a) and (b) of the University Act No.16 of 1978 as amended by Acts No.7 of 1985 and No. 26 of 1988.

General Regulations:

1. These By-laws may be cited as the "By-Laws, No. 01 of 2020, relating to examination procedure of the undergraduate programme leading to the degree of Bachelor of Medicine and Bachelor of Surgery and shall come into operation with effect from 11 May 2020. These By-laws supersede any other By-Laws or Regulations that may have been issued to students earlier.

2. The examinations leading to the degree of Bachelor of Medicine and Bachelor of Surgery (herein after referred as MBBS) shall be,
    i. First examination conducted at the end of third semester called Second examination for MBBS (herein after referred as Second MBBS),
    ii. Module-based parts I to IV of the Third examination for MBBS (herein after referred as Third MBBS),
    iii. Final examination for MBBS (herein after referred as Final MBBS) respectively.

3. Subject to these By-Laws a student may be awarded the Degree of Bachelor of Medicine and Bachelor of Surgery if he/she:
    i. Has been admitted as an internal student at the University, and
    ii. Has been registered as a medical student at the University for a period not less than 4 years and 9 months, and
    iii. Has completed the course of study prescribed by the By-Laws, rules, and regulations, to the satisfaction of the Senate, and
    iv. Has passed the Second MBBS Examination and
    v. Has passed all modules in parts I to IV of the Third MBBS Examination and
    vi. Has passed the Final Examination and
    vii. Has paid such fees or other dues as may be prescribed by the University, and
    viii. Has fulfilled any other conditions or requirements as may be prescribed by the University.

4. The modules/subjects within the course of study for the examinations leading to the MBBS Degree, and the number of question papers/oral examinations/other forms of assessment in each module/subject shall be prescribed under the regulations made by the Senate.

5. Each of the examinations prescribed by these By-Laws and the regulations, shall be conducted by a Board of Examiners appointed by the Faculty Board and approved by the Senate for the conduct of the said examination.

6. The candidate should possess a valid document of admission pertaining to an examination issued by the Deputy Registrar / Senior Assistant Registrar/ Assistant Registrar of the Faculty of Medicine to be eligible to sit for any subcomponent/ module /subject of an examination.

7. A candidate shall present him/her-self for each examination leading to the MBBS degree on the first occasion at which he/she is eligible to do so (herein after referred to as the first attempt). It shall be within the power of the Senate to declare that he/she is eligible to appear for that examination on a subsequent scheduled examination as a first attempt candidate.

8. A candidate may be granted permission to postpone a scheduled attempt of an examination on the basis of a valid reason* accepted by the Faculty Board therein Senate and the attempt at which he/she sits the examination after the postponement shall be regarded as the said attempt for which he/she has submitted a valid reason.
   **valid reason: acceptable valid reasons given in statement 70*

9. In the absence of a valid reason, failure to sit any due and scheduled examination shall be considered as an unsuccessful attempt at that examination.

10. If the candidate fails to sit for a subcomponent* of a module/subject of an examination without a valid reason, the candidate shall be given zero marks for that subcomponent.
    **subcomponent: composition of examination-theory, multiple choice questions (MCQ), structured essay question (SEQ), objective structured practical examination (OSPE), objective structured clinical examination (OSCE), viva, long and short cases*.

11. A candidate shall not be allowed to sit only for subcomponent of an examination excluding the other scheduled subcomponents of the said examination unless he/she has been referred in the said subcomponent of the said examination during a previous attempt or provides a valid reason accepted by Faculty Board therein Senate.

12. If a candidate is referred in a module/subject of an examination the candidate should take the entire module/ subject at the next scheduled examination as the candidate's second attempt. The candidate therefore shall not be eligible for Honours and Distinctions.

13. If a candidate is unable to sit for a module/subject of an examination at the first attempt due to the candidate being repeated in a clinical appointment on account of a valid reason acceptable to the Faculty Board therein Senate, the candidate may be allowed to sit for the next available examination immediately after completion of the repeat clinical appointment and that the said examination shall be considered the first attempt for the said candidate. Such a candidate shall be eligible for Honours and Distinctions.

14. If the candidate is unable to sit for a module / subject of an examination due to the candidate being repeated in a clinical appointment not on account of a valid reason, the candidate shall not be eligible for Honours and Distinctions at any subsequent attempt of the same examination.

15. A candidate who has been successful at the Second MBBS examination, module based Third MBBS examination and Final MBBS Examination for MBBS degree at the first attempt shall be awarded First Class Honours or Second Class Honours (Upper division) or Second Class Honours (Lower division) or a pass, Distinctions, Medals and Prizes as the case shall be.

16. Results released at in-course assessments (end semester examinations) as grades A to E, whereas at year end examinations of Second, Third and Final MBBS examinations it is released as pass or as achieved class. These are tabled as follows:

Table 1: Grades at end semester examinations (Modules/Subjects)

Raw Marks	Grade
≥80	A+
75 – 79	A
70 – 74	A-
65 – 69	B+
60 – 64	B
57 – 59	B-
54 – 56	C+
50 – 53	C
45 – 49	C-
40 – 44	D+
25 – 39	D
<25	E

Table 2: Class cut-offs per cumulative subject/modular average marks at Year -end Examinations (2nd, 3rd and Final MBBS)

Cumulative average mark (subject/modular)	Award of Class
≥80	First Class Honours
75 – 79	
70 – 74	
65 – 69	Second Class Honours (Upper division)
60 – 64	Second Class Honours (Lower division)
57 – 59	Pass
54 – 56	
50 - 53	
45 - 49	Fail
40 – 44	
25 – 39	
<25	

17. A candidate shall not be eligible for Honours unless the candidate has taken the examination on the earliest occasion on which the candidate is qualified to do so, provided that it shall be within the power of the Faculty Board therein Senate to declare, on a case by case basis that a candidate is eligible for Honours at a subsequent attempt.

18. A candidate shall not be eligible for Honours, Distinctions, Medals and Prizes unless the candidate has passed the examination at the candidate's first attempt.

19. A candidate **must pass the Final MBBS Examination within ten calendar years of commencing academic work in the faculty**. If a student fails to do so, his / her registration shall be declared invalid by the Vice-Chancellor on the recommendation of the Senate, and he / she shall cease to be a student at the university.

Second MBBS Examination for Bachelor of Medicine and Bachelor of Surgery (MBBS) Degree

20. The Second MBBS examination for Bachelor of Medicine and Bachelor of Surgery (MBBS) degree consists of examination of preclinical phase modules and subjects.

21. A candidate for the Second MBBS Examination for MBBS degree should have

    i. Followed the prescribed course of study in each of these modules/subjects, to the satisfaction of the senate

    ii. A minimum of 80% attendance at lectures and 80% attendance at tutorials, practicals, formative assessments and other specified educational activities within each module.

22. The course shall be of three semester duration. There shall be in course assessments, end semester modular examination and the Second MBBS Comprehensive examination for MBBS degree held at the end of the third semester, and a supplementary examination shall be held not less than six weeks after the release of the results of the comprehensive examination.

23. Assessment method of Preclinical Modules and Second MBBS Comprehensive Examination and Contribution of marks for the Second MBBS barrier examination are as follows:

Table 3: Second MBBS Examination – Marks Distribution

Semester	Modules	Subcomponent/s	Percentage per module
One	Communication and Information Technology		2%
	Foundation	MCQ/SEQ/OSPE/CA/VIVA	3%
	Body tissues and locomotor system-I	MCQ/SEQ/OSPE CA/VIVA	4%
	Blood and Immune system-I	MCQ/SEQ/OSPE/CA/VIVA	3%
Two	Cardiovascular system -I	MCQ/SEQ/OSP / CA/VIVA	5%
	Respiratory system -I	MCQ/SEQ/OSPE/CA/VIVA	5%
	Gastrointestinal system and Hepatobiliary system-I	MCQ/SEQ/OSPE/CA/VIVA	3%
	Nutrition and Metabolism	MCQ/SEQ/OSPE/CA/VIVA	3%
Three	Renal and urinary systems-I	MCQ/SEQ/OSPE/CA/VIVA	4%
	Endocrine system-I	MCQ/SEQ/OSPE/CA/VIVA	4%
	Reproductive system-I	MCQ/SEQ/OSPE/CA/VIVA	4%
	Neurology Module-I	MCQ/SEQ/OSPE/CA/VIVA	5%

Total form Modules for Second MBBS Examination	**45%**
Second MBBS Comprehensive Examination 4. Basic Sciences for Clinical practice I (Anatomy) 5. Basic Sciences for Clinical practice II (Physiology) 6. Basic Sciences for Clinical practice III (Biochemistry)	**Percentage per Subject** 20% 20% 15%
Total from Second MBBS Comprehensive Examination	**55%**
Total for the Second MBBS Bar Examination (Module + Comprehensive)	**100%**

24. The Format of the comprehensive examination shall be as follows:

Table 4: Format of Marks Distribution of the Second MBBS comprehensive examination

Basic Sciences for Clinical Practice I-Anatomy		
Component	**Number of Questions**	**Marks %**
Multiple Choice /SBR questions	60	40%
Structured Essay	06	30%
OSPE	30	20%
Oral Examination	10min	10%
Total (contributes to 20% of the marks of 2nd MBBS)		100%
Basic Sciences for Clinical Practice II- Physiology		
Component	Number of Questions	Marks %
Multiple Choice /SBR questions	50	40%
Structured Essay	04	30%
OSPE	20	20%
Oral Examination	10min	10%
Total (contributes to 20% of the marks of 2nd MBBS)		100%
Basic Sciences for Clinical Practice III-Biochemistry		
Component	Number of Questions	Marks %
Multiple Choice /SBR questions	40	40%
Structured Essay	04	30%
OSPE	20	20%
Oral Examination	10min	10%
Total (contributes to 15% of the marks of 2nd MBBS)		100%

25. The examination immediately following the completion of the course shall deemed to be the first due or scheduled attempt.

26. A candidate shall be deemed to have sat the first scheduled examination irrespective of whether it has been attempted or not unless a valid reason* has been submitted and accepted by the Senate.

**defined in statement 70.*

27. If the reason for the absence has been accepted, the examination immediately following the expiry of the period of postponement recommended by the Senate shall be the candidate's first attempt.

28. In the absence of a valid reason, failure to sit any due or scheduled examination will be considered as an unsuccessful attempt at the examination.

29. A student should sit for the first attempt of the Second MBBS Examination for MBBS degree within four academic calendar years of commencing academic work in the faculty **with or without a valid reason and in not more than four scheduled attempts** not counting attempts with a valid reason.

30. Criteria for **Pass/Referred** for the Second MBBS Examination for MBBS degree for First attempt:

    i. A candidate who obtains 50% or above for the second MBBS examination, calculated from the marks of module examinations and the comprehensive examination, shall be considered to have passed the Second MBBS Examination for MBBS degree provided that average marks obtained are not less than 40% for each of three comprehensive examination subjects.

    ii. A candidate who has obtained less than 50% for 2nd MBBS examination is considered to have referred in said examination and will be referred in the subject/s where he/she scored less than 50 % for the comprehensive second MBBS examination.

    iii. If a candidate has obtained minimum of 50% in all three subjects in the second MBBS comprehensive examination and could not obtain 50% overall marks for the second MBBS examination shall be considered to have referred in the examination and the subject/s to be referred shall be decided according to the extracted results of the modular examination marks.

31. Award of **Classes/Distinctions/Prizes/Gold Medals** for the Second MBBS Examination for MBBS degree for First attempt:

i. A candidate who passes the Second MBBS Examination for MBBS degree at the first scheduled attempt and obtains an overall average of 70% or above at that examination shall be eligible for a **First-Class Honours**.

ii. A candidate who passes the Second MBBS Examination for MBBS degree at the first scheduled attempt and obtains an overall average of 65 % to 69 % at that examination shall be eligible for a **Second-Class Upper Division Honours**.

iii. A candidate who passes the 2nd MBBS Examination for MBBS degree at the first scheduled attempt and obtains an overall average of 60 % to 64 % at that examination shall be eligible for a **Second-Class Lower Division Honours**.

iv. A candidate who obtains 70% or above in a subject in the second MBBS comprehensive examination with an average minimum of 60% or above in the module examinations extracted marks of the particular subject will be awarded a **distinction** in the respective subject, provided that the candidate has passed the 2nd MBBS Examination for MBBS degree in the first attempt.

v. A candidate who obtains the highest marks for a subject at both comprehensive examination and modular extraction at the first attempt shall be eligible for the Gold medal or Prize for that subject depending on the availability/sponsorship of that prize or the gold medal.

32. Criteria for Pass/Referred for the 2nd MBBS subsequent/repeat Examination

i. Module marks shall not be considered in deciding pass/fail/referred at the subsequent examination

ii. A candidate who has obtained more than 50% marks for any subject shall considered to have passed that subject.

33. A student shall not be competent to **enter the course** leading for the module based Third MBBS Examination MBBS degree **unless and until** the student has passed the Second MBBS Examination for MBBS degree.

34. A candidate for the module based Third MBBS Examination for MBBS degree shall have:

    i. Passed the Second MBBS Examination for MBBS degree,

    ii. Completed the prescribed modules specified for the module based Third MBBS Examination for MBBS degree to the satisfaction of the Senate,
    completed the continuous assessments,

    iii. A minimum of 80% attendance at lectures and 80% attendance at tutorials, practicals, formative assessments and other specified educational activities within each module.

35. The course shall be of four semesters and the module based Third MBBS Examination for MBBS degree shall be held in four parts at the end of respective semester, it shall carry continuous assessment marks from relevant modules.

    i. **Part-1 of module based Third MBBS Examination** shall assess the contents of, Foundation in Pathology module, Foundation to Pharmacology module, Infection module -1, Blood and Immune system module -2 and Community Medicine module-1 which will be scheduled during the 4th semester. The Part-1 of module based Third MBBS Examination for MBBS degree will be held at the end of the 4th semester.

    ii. **Part-2 of module based Third MBBS Examination** shall assess the contents of, Community Medicine module –2, Cardiovascular system module -2, Respiratory system module -2, Gastro-Intestinal and Hepatobiliary system module -2 and Infection module -2 which will be scheduled during the 5th semester. The Part-2 of module based Third MBBS Examination for MBBS degree will be held at the end of the 5th semester.

    iii. **Part -3 of module based Third MBBS Examination** shall assess the contents of, Community Medicine Module -3 (Research), Endocrine system module -2, Renal and Urinary system module – 2, Reproductive system -2 and Forensic Medicine module -1, which will be scheduled during the 6th semester. The Part-3 of module based Third MBBS Examination for MBBS degree will be held at the end of the 6th semester.

    iv. **Part-4 of module based Third MBBS Examination** shall assess the contents of,

Neurology module – 2, Body Tissue and Locomotor system module -2, Mental Health Module, Forensic Medicine module -2, Community Medicine module -4 and Primary Care & Family Medicine module which will be scheduled during the 7th semester. The Part-4 of module based Third MBBS Examination for MBBS degree will be held at the end of the 7th semester.

36. **Assessment format of third MBBS Examination**

Table 5. Assessment format of third MBBS Examination

Semester/ Assessment	Modules	Subcomponent/s	Percentage per module
Four Assessed as Part 1 of Third MBBS Examination	Foundation in Pathology	MCQ/ SEQ/ OSPE / CA	6%
	Foundation in Pharmacology	MCQ/ SEQ / CA	6%
	Infection Module - 1	MCQ/ SEQ/ SAQ/ OSPE/ Practical Examination/ CA	6%
	Blood and Immune System -2	MCQ/ SEQ/ OSPE/ CA	5%
	Community Medicine - 1	MCQ/ SEQ/ CA	4%
Five Assessed as Part 2 of Third MBBS Examination	Community Medicine - 2	MCQ/ SEQ/ CA	4%
	Cardiovascular System - 2	MCQ/ SEQ/ OSPE/ CA	5%
	Respiratory System - 2	MCQ/ SEQ/ OSPE/ CA	4%
	Gastrointestinal and Hepatobiliary System -2	MCQ/ SEQ/ OSPE/ CA	6%
	Infection Module - 2	MCQ/ SEQ/ SAQ/ OSPE	6%
Six Part 3 of Third MBBS Examination	Community Medicine-3 (Research)	Research Report/ Research Viva/ Presentation	4%
	Endocrine System - 2	MCQ/ SEQ/ OSPE/ CA	6%
	Renal and Urinary System - 2	MCQ/ SEQ/ OSPE/ CA	4%
	Reproductive System - 2	MCQ/ SEQ/ OSPE/ CA	5%
	Forensic Medicine - 1	MCQ/ SEQ/ OSPE/ CA	4%
Seven Part 4 of Third MBBS Examination	Neurology Module - 2	MCQ/ SEQ/ OSPE/ CA	5%
	Body Tissue and Locomotor System - 2	MCQ/ SEQ/ OSPE/ CA	5%
	Mental Health Module	MCQ/ SEQ	4%
	Forensic Medicine - 2	MCQ/ SEQ/ OSPE/ CA	5%
	Community Medicine - 4	MCQ/ SEQ/ CA	4%
	Primary Care and Family Medicine Module	MCQ/ SEQ/ OSPE/ OSCE	2%
Cumulative total for Third MBBS			100%

MCQ: Multiple Choice Questions, SEQ: Short Essay Questions, SAQ: Short Answer Questions, OSPE: Objective Structured Practical Examination, OSCE: Objective Structured Clinical Examination, CA- Continuous Assessment

37. A candidate shall be deemed to have passed the module based Third MBBS Examination for MBBS degree **when** the candidate has passed **all modules of the Third MBBS examination.**

38. Criteria for Pass/ Referred for the module based Third MBBS Examination for MBBS degree:

    i. A candidate who obtains an overall average of 50% marks or above in each of the module in module based Third MBBS Examination, shall be considered to have passed the Third MBBS Examination for MBBS degree.

    ii. A candidate who obtains less than 50% marks in each module of module based Third MBBS Examination for MBBS degree, shall be considered as referred in that module.

39. Criteria for supplementary modular examinations

    i. A candidate who has referred in a module/s of the module based third MBBS Examination for MBBS degree, shall be required to sit for a repeat examination not less than six weeks from the date of release of results of that module of part of the module based third MBBS Examination.

    ii. A candidate shall be allowed to sit any number of attempts for the module based third MBBS Examination for MBBS degree **provided that the candidate completes the MBBS degree within the within ten calendar years of commencing academic work in the faculty** as an internal student for MBBS degree program.

    iii. The said 'Theory Component' constitute Multiple Choice Questions and short Essay Questions.

40. Award of Classes (Honours) for the module based third MBBS Examination for MBBS degree:

    i. A candidate who passes all the modules of module based Third MBBS Examination for MBBS degree at the first attempt and obtains an overall cumulative marks of 70% or above and has obtained a cumulative overall average of 65% marks or above in the theory component in all the modules of that examination shall be eligible for **First Class Honours**.

    ii. A candidate who passes the module based Third MBBS Examination for MBBS degree at the first scheduled attempt and obtains an overall cumulative mark of 65% to 69% at that examination, and has obtained a cumulative overall average of 60% or above in the theory component shall be eligible for **Second Class Upper Division Honours.**

    iii. A candidate who passes the module based Third MBBS Examination for MBBS degree at the first scheduled attempt and obtains an overall cumulative mark of 60% to 64% and has obtained a cumulative overall average of 55% or above in the theory component at that examination shall be eligible for **Second Class Lower Division Honours.**

41. Award of distinctions / medals / prizes / scholarships for the module based Third MBBS Examination for MBBS degree:

    i. A candidate who obtains a cumulative of 70% marks or above in separate subjects within the modules, namely, Forensic Medicine and Toxicology, Microbiology, Pathology, Parasitology, Pharmacology and Therapeutics, Community Medicine and Primary Care & Family Medicine will be awarded a **distinction** in the respective subject/s, provided that the candidate has passed all the modules in the module based Third MBBS Examination for MBBS degree in the first attempt.

    ii. The candidate who obtain the highest mark in a particular subject will receive the **gold medal or Prize** of that particular subject provided that the candidate has obtained minimum of 75% in that subject and the candidate has passed all the modules in the module based Third MBBS Examination for MBBS degree in the first attempt. Award shall depend on the availability/sponsorship of prizes/awards for the particular subject.

Final Examination for Bachelor of Medicine and Bachelor of Surgery Degree (Final MBBS)

42. The course for the Final Examination for MBBS Degree shall be conducted in five consecutive appointments of eight weeks each duration scheduled during the fifth year. A student shall not be competent to enter the course unless and until he/she has completed all the pre-professorial clinical appointments of the second, third and fourth years to the satisfaction of the trainers, has passed Personal Professional Development stream and not referred in more than one module in module based third MBBS examination.

43. The Final Examination for MBBS degree shall assess the competencies under the five subjects: Medicine, Surgery, Obstetrics and Gynaecology, Paediatrics, and Psychiatry.

44. A candidate shall be eligible to sit for the Final Examination for MBBS if he/she:

    i. Has been registered as a medical student at the university for a period not less than 4 years and 9 months, and

    ii. Has passed the Second MBBS Examination for MBBS degree, and

    iii. Has passed the Third MBBS Examination for MBBS degree, and

    iv. Has completed all the clinical appointments to the satisfaction of the trainer regarding the knowledge, skills and attitudes of the candidate, and

    v. Has passed the Personal Professional Development (PPD) stream and Professionalism in Clinical Practice (PCP) stream, and

vi. Completed to the satisfaction of the Senate the prescribed course of study in each of Medicine, Surgery, Obstetrics and Gynaecology, Paediatrics and Psychiatry.

45. The Final Examination for MBBS degree held immediately following the completion of the above requirements shall deemed to be the candidate's first attempt.

46. Assessment format of Final Examination for MBBS degree shall be:

Table 6: Assessment format of Final Examination for MBBS degree

Subject	Component	Marks
Medicine	Continuous Assessments: Pre-professorial Logbook Assessment Viva Professorial Logbook Assessment Viva End-professorial OSCE	 5 5 10
	Theory-SEQ Paper	20
	Common MCQ paper (Common to all Sri Lankan Medical Faculties) (30 SBA's, 20 T/F MCQs)	20
	Clinical-Long Cases	20
	Clinical-Short Cases	20
	Total	100
Surgery	Continuous Assessments: Pre-professorial Logbook Assessment Viva End-professorial OSCE	 10 10
	Theory-SEQ Paper	20
	Common MCQ paper (Common to all Sri Lankan Medical Faculties) (30 SBA's, 20 T/F MCQs)	20
	Clinical-Long Cases	20
	Clinical-Short cases	20
	Total	100
Paediatrics	Continuous Assessments: Pre-professorial Logbook Assessment Viva End-professorial Logbook Assessment Viva End-professorial OSCE	 5 5 10
	Theory-SEQ Paper	20
	Common MCQ paper (Common to all Sri Lankan Medical Faculties) (30 SBA's, 20 T/F MCQs)	20
	Clinical-Long Cases	20
	Clinical-Short cases	20
	Total	100
Obstetrics	Continuous Assessments: Pre-professorial Logbook Assessment Viva	 5

and Gynaecology	End-professorial Logbook Assessment Viva End-professorial OSCE	5 10
	Theory-SEQ Paper	20
	Common MCQ paper (Common to all Sri Lankan Medical Faculties) (30 SBA's, 20 T/F MCQs)	20
	Clinical-Long Cases-Obstetrics	20
	Clinical-Long cases-Gynaecology	20
	Total	100
Psychiatry	Continuous Assessments: Logbook Assessment Viva End of module theory (MCQ) paper	 5 5
	Theory-SEQ Paper	25
	Common MCQ paper (Common to all Sri Lankan Medical Faculties) (20 SBA's, 30 T/F MCQs)	25
	Clinical-Long Cases	25
	MOCE (2 stations) with the Final /written examination	15
	Total	100
Case: patient or simulated patient; *Long case*: 40-minute complete clinical examination; *Short case*: Brief patient examination; *Common MCQ*: Multiple choice question paper held for all candidates of all Sri Lankan medical faculties; *SEQ*: Short essay question; *OSCE*: Objective structured clinical examination; MOCE, Mini Observed Clinical Examination;		

47. A candidate shall be deemed to have sat the first scheduled Final examination for MBBS degree irrespective of whether it has been attempted or not unless a valid reason* exists. **valid reasons-see statement 70*

48. If a valid reason exists, the Final Examination for MBBS degree immediately following the expiry of the period of postponement accepted and recommended by the Senate shall be considered the candidate's first attempt and the candidate will be eligible for Honours and Distinctions.

49. In the absence of a valid reason, failure to sit one or more subjects or a subcomponent thereof of the scheduled Final Examination for MBBS degree will be considered as an unsuccessful attempt at that examination and the candidate has to sit for the next scheduled examination and it will be considered the candidate's second attempt.

50. A candidate who has been referred in one or more subjects at the Final Examination for MBBS degree should pass the referred subject/s within twenty-four months of the first attempt. Failed to do so, the candidate must re-sit the whole examination in the next scheduled attempt.

51. A candidate may be granted permission to postpone a scheduled attempt based on a valid reason. Period of exemption granted will be considered by the Senate based on individual merit.

52. Criteria for **Pass/Referred** for the Final Examination for MBBS degree:

    i. A candidate shall be considered passed in each clinical subject in the Final Examination for MBBS degree by obtaining a minimum 45% or above in the theory component, and obtaining a minimum of 50% or above in clinical examinations (long case and short case or equivalent) and obtaining an overall average of 50% or above in a particular subject.

    ii. A candidate shall be considered referred in each clinical subject in the Final Examination for MBBS degree by failing to obtain a minimum 45% or above in the theory component, or failing to obtain a minimum of 50% or above in clinical examinations (long case and short case or equivalent) or failing to obtain an overall average of 50% or above in a particular subject.

53. Award of distinctions/ medals/ prizes for the Final Examination for MBBS degree

    i. A candidate who obtains an overall average of 70% or above in a subject and 65% or above for the theory component in the relevant subject in the Final Examination for MBBS degree shall be considered to have obtained a **distinction** in that subject provided that he/she is sitting that examination for the first attempt and that he/she passes the whole Final Examination for MBBS degree in that first attempt.

    ii. The candidate who obtain the highest mark in a particular subject will receive the **prize or gold medal** of that particular subject provided that the candidate has obtained minimum of 70% in written examination and 75% in clinical examination with overall mark of 75% for that subject and has passed the whole examination in the first attempt. The awarding shall depend on the availability of prize/gold medal for the particular subject.

54. **Award of classes** for the Final Examination for MBBS degree:

    i. A candidate who passes the Final Examination for MBBS degree at the first attempt and obtains a cumulative overall average of 70% or above in all clinical components at that examination and has obtained a cumulative overall average of 65% or above in the theory component of all five clinical subject, shall be eligible for **First Class Honours**.

    ii. A candidate who passes the Final Examination for MBBS degree at the first attempt and obtains a cumulative overall average of 65% to 69% at all clinical components at that examination and has obtained a cumulative overall average of 60% or above in the theory component of all five clinical subject, shall be eligible for **Second Class Honours (Upper Division).**

Or

55. A candidate who has passed the Final Examination for MBBS degree at the first scheduled attempt and obtains an average of 64% at that examination shall be eligible for **Second Class Honours (Upper Division)** provided that he/she has,

    i. obtained Second Class Upper or First-Class Honours in both the Second MBBS Examination for MBBS degree and Third MBBS Examination for MBBS degree in the first attempt

    and,

    ii. a cumulative average mark of 65% or above at the Second MBBS Examination for MBBS degree and Third MBBS Examination for MBBS degree

56. A candidate who passes the Final Examination for MBBS degree at the first scheduled attempt and obtains a cumulative overall average of 60% to 64% at all clinical components at that examination and has obtained a cumulative overall average of 55% or above in the theory component of all five clinical subject, shall be eligible for **Second Class Honours (Lower Division).**

    Or

57. A candidate who has passed the Final Examination for MBBS degree at the first scheduled attempt and obtains an average mark of 58% or above at the Final Examination for MBBS degree shall be eligible for **Second Class Honours (Lower Division)** provided that he/she

    i. has obtained Honours in both the Second MBBS Examination for MBBS degree and the Third MBBS Examination for MBBS degree and

    ii. has a cumulative average of 60% or above at the Second MBBS Examination for MBBS degree, and the Third MBBS Examination for MBBS degree.

Absence at the Second, Third and Final MBBS Examinations for MBBS Degree.

58. A candidate, upon fulfilling requirements for Second MBBS, Third MBBS and Final MBBS examination for MBBS degree criteria, should sit for the first scheduled examination and pass all components therein.

59. If a candidate is absent for an entire examination:

    i. With a valid reason acceptable to the Faculty Board therein Senate, the candidate would sit the next scheduled examination as the candidate's first attempt and the candidate would be eligible for Honours and Distinctions.

    ii. Without a valid reason acceptable to the Faculty Board therein Senate, the candidate would sit the next examination as the candidate's second or subsequent attempt and the candidate will not be eligible for Honours and Distinctions.

60. If a candidate is absent for a module /subject (all subcomponents thereof) at the same examination:

i. With a valid reason, the results of the completed modules/subjects would be withheld until the results of all the module/subjects can be released at the next scheduled attempt.

ii. Without a valid reason, the candidate would be considered failed in that module/subject. The candidate should sit the relevant modules or subjects of that examination as the candidate's second or subsequent attempt. The candidate therefore would not be eligible for Honours and Distinctions.

61. If a candidate is absent only for one or more sub-component/s of a module or subject of an examination due to a valid reason the candidate should select one of the following options:

    i. The candidate will be eligible to sit the sub-component/s of the module/subject of an examination at a subsequent attempt. The results of the module/subject that the candidate sat for would be withheld until the results of all the sub-components can be released. The maximum marks the candidate will be given for that subcomponent at the next scheduled exam will be 50% and the candidate will not be eligible for Honours and Distinctions. However, Faculty Board therein Senate decision will be sort on case by case basis.

    ii. The candidate could request the whole examination to be considered null and void and sit for all the sub components of a module/subject at the next examination provided that the candidate has passed all the other sub-components of the module/ subject attempted and the Faculty Board therein Senate has approved on a case by case basis. In such instances it would be considered as the candidate's first attempt and the candidate would therefore be eligible for Honours and Distinctions.

62. If a candidate is absent only for one or more sub-component/s of a module or subject of an examination without a valid reason, the candidate carries zero marks for that subcomponent/s and the result will be decided on completed subcomponents.

63. When a candidate is unsuccessful in the first attempt and sits module/s /subject/s of an examination in the second or subsequent attempt,

    i. Continuous assessment marks will not be taken into consideration.

    ii. Will not be eligible for Honours or distinction/s.

Absence at Formative Assessments, Lectures, Tutorials and Practical and Other Specified Educational Activities

64. A candidate shall have **completed** a minimum of 80% of the written and online formative assessments, 80% attendance at lectures, 80% attendance at tutorials and practicals and 80% attendance at the other specified educational activities within each module/subject to be eligible to sit the relevant module /subject of an examination.

65. A candidate who fails to complete 80% of formative assessments or fails to attend 80% of lectures or fails to attend 80% of tutorials/ practicals/ other specified educational activities within each module/ subject should attend extra formative assessments, lectures, tutorials or practicals to complete the 80% where applicable before the candidate is eligible to sit the relevant module/subject of an examination. In the instance where the candidate is unable to attend and complete 80% in each of above teaching learning activities, Head of the Department shall decide on case by case basis in the form of subjecting to assignments where appropriate.

66. Once the candidate completes 80% of above-mentioned teaching learning activities within each module / subject or equivalent thereof to the satisfaction of the respective module coordinator/ Head of the Department therein the Faculty Board, the candidate is eligible to sit the next scheduled relevant module/ subject of the examination.

67. If the candidate's absence cannot be covered before the first scheduled examination the candidate should sit the next scheduled examination.

68. If candidate's absence or failure to complete above mentioned teaching learning activities is covered by a valid reason acceptable to the Faculty Board therein Senate, next scheduled examination will be considered as the candidate's first attempt therefore the candidate would be eligible for Honours and Distinction.

69. If candidate's absence is not covered by a valid reason acceptable to the Faculty Board therein Senate, next scheduled examination will be considered as the candidate's second attempt and the candidate therefore would not be eligible for Honours and Distinctions.

70. Valid Reasons for absenteeism for Examinations, continuous assessments, formative assessments, lectures, tutorials and practicals and other specified educational activities shall be:

    i. Submission of a government medical certificate covering an illness, to the satisfaction of the Faculty Medical Board therein Faculty Board and Senate to exempt the candidate from the examination.

    ii. Death of immediate family member (parents / brother / sister and if married, spouse/ parents-in-law/ children) up to seven days prior to or during the examination. The death certificate should be submitted for approval of Faculty Board therein Senate.

iii. Serious illness of a family member (parent / brother / sister and if married, spouse/ Parents-in-law /children) which requires personal attention of the candidate and the submission of documentary evidence satisfactory to the Faculty Medical Board therein Faculty Board and Senate.

iv. Candidate representing the country/ university in a sports or other event for which a prior approval has been granted by the university.

v. Natural disaster certified by a Grama Niladari therein Divisional Secretory of the relevant division or equivalent which precludes a candidate from attending the examination.

vi. Any other reason which is satisfactory to special Faculty Board subcommittee therein Faculty Board and Senate.

Fallback Options from MBBS Degree Course:

71. A student who has been admitted to the MBBS programme, but fails to successfully complete second MBBS examination shall be awarded a **Diploma in Human Biology**, provided that the student has fulfilled the following criteria:

    i. Successful completion of Second MBBS modular examination accounting for more than 30 credits at SLQF level 3.

    ii. Completed the relevant requirements within a period of not more than 10 consecutive academic years.

72. A student who has been admitted to the MBBS programme, but fails to successfully complete Final MBBS examination shall be awarded a **Bachelor of Health Sciences Degree**, provided that the student has fulfilled the following criteria:

    i. Successful completion of Second MBBS modular and comprehensive examination

    ii. Successful completion of part I to IV of the modular based Third MBBS examination, accounting for more than 120 credits, thus fulfilling SLQF level 5.

    iii. Completed the relevant requirements within a period of not more than 10 consecutive academic years.

73. A student who has been admitted to the MBBS programme, but desires early exit shall be awarded a **Higher Diploma in Human Biology**, provided that the student has fulfilled the following criteria:

    i. Successful completion of Second MBBS modular and comprehensive examination and obtaining not less than 50% marks at Part 1 of modular based third MBBS examination. (Accounts for more than 60 credits course thereby fulfilling SLQF level 4 requirement)

    ii. Completed the relevant requirements within a period of not more than five consecutive academic years

74. Awarding of diplomas and degrees as mentioned in above statement 71 to 73 shall be decided as per individual cases by the faculty board therein the Senate and once any of the qualifications named in statements 71 to 73 have been awarded, it cannot be changed, nor can a student revert back to the MBBS degree programme, under any circumstances.

75. The qualifications named in statements 71 to 73 **shall not** be eligible for registration with the Sri Lanka Medical Council.

Detailed Syllabus

<table>
<tr><td>Year</td><td>1</td><td>Semester</td><td colspan="4">I</td></tr>
<tr><td>Course Code</td><td>MED1113</td><td>Course Name</td><td colspan="4">Communication and Information Technology</td></tr>
<tr><td>Credits Value</td><td>3</td><td colspan="2">Total Lecture Hours</td><td>30</td><td rowspan="3">Pre-requisites</td><td rowspan="3"></td></tr>
<tr><td>GPA/NGPA</td><td>GPA</td><td colspan="2">Total Practical/Tutorial/Seminar/SGD/PBL/ hours</td><td>30</td></tr>
<tr><td>Core/Optional</td><td>Core</td><td colspan="2">Independent Learning</td><td>105</td></tr>
<tr><td colspan="2">Course Aim/Intended Learning Outcomes:</td><td colspan="5">1. Explain the meaning of written and verbal forms of General and Medical English.
2. Make contextual reference and efficiently take down notes
3. Communicate in both written and verbal forms
4. Draft applications and curriculum vitae
5. Use internet for literature search
6. Use technology for creating word documents, spreadsheet, create graph and powerpoint presentation, effective interpersonal communication</td></tr>
<tr><td colspan="2">Course Content (Main topics, Sub topics)</td><td colspan="5">Reading, writing and listening comprehension of general English, use of Medical terms and basis of origin of medical terms, use of medical textbooks and other medical literature, searching of information on the web, use of word processing software and data entry software, use of formula in excel sheet, creation of graph and making PowerPoint presentation</td></tr>
<tr><td colspan="2">Teaching/Learning Methods [Each course unit should preferably have at least one or two sessions that are available online]</td><td colspan="5">Lectures + Small Group Discussion + Practical + Assignment (four assignments).</td></tr>
<tr><td colspan="2" rowspan="2">Assessment Strategy</td><td colspan="4">Semester-end examination</td><td>100%</td></tr>
<tr><td colspan="4">Contribution to 2nd MBBS examination</td><td>2%</td></tr>
<tr><td colspan="2">References/Reading Materials</td><td colspan="5">1. Teaching Listening Comprehension-Penny UR-Eleventh Printing 1993
2. A communicative grammar of English-Geoffrey Leech/Jan Svartvik, 3rd Edition</td></tr>
</table>

<table>
<tr><td>Level</td><td>1</td><td>Semester</td><td colspan="4">I</td></tr>
<tr><td>Course Code</td><td>MED1124</td><td>Course Name</td><td colspan="4">Foundation</td></tr>
<tr><td>Credits Value</td><td>4</td><td colspan="2">Total Lecture hours</td><td>43</td><td rowspan="3">Pre-requisites</td><td rowspan="3">None</td></tr>
<tr><td>GPA/NGPA</td><td>GPA</td><td colspan="2">Total Tutorial & Practical hours</td><td>36</td></tr>
<tr><td>Core/Optional</td><td>Core</td><td colspan="2">Notional hours</td><td>121</td></tr>
<tr><td>Course Aim/Intended Learning Outcomes:</td><td colspan="6">At the completion of this course student will be able to

1. Describe the structure of the cell and cell organelles and organization of multi- cellular organisms.
2. Outline the structure and function of biomolecules and their importance.
3. Describe the functions of the biomolecules at cellular level (membrane function) and their importance in the homeostasis.
4. Describe the role of enzymes as biological catalysts and the effect of pH on biological function.
5. State the composition of body and body compartments.
6. Describe the mechanisms that maintain homeostasis.
7. Describe the basic embryology
8. Analyze and present a critical evaluation of a congenital defects
9. Describe fundamentals of human genetics and application</td></tr>
<tr><td>Course Content (Main topics, Sub topics)</td><td colspan="6">The Cell
The Cell structure and microscope, Cell organelles, Cell cycle.

Body fluids
Body fluid compartments, Role of water and macromolecules in biological system, Transport across cell membrane, Tissue fluid formation (Starling forces),Derangements of Starling forces (oedema), Dehydration, IV fluids.

Biological macromolecules
Carbohydrates, Amino acids, Proteins, Lipids, Nucleic acids, Molecules that recognize other structures.

Biological catalysts
Role of enzymes in biological systems and enzyme inhibition as a method of manipulating body functions.

Extracellular Matrix
Composition and components of extracellular matrix.</td></tr>
</table>

	pH and Buffers Basics and importance of pH and buffers in body functions. **Early Embryogenesis** Male and female gametes, fertilization and implantation, Bilaminar and trilaminar germ discs, Placenta and foetal membranes, Formation of neural tube and somites, Introduction to congenital anomalies. **Fundamentals of Genetics** Introduction to human Genetics, Gene and chromosomes, Significance of the genetic code and inheritance patterns, Human evolution.
Teaching/Learning Methods *[Each course unit should preferably have at least one or two sessions that are available online]*	Lectures (Physical/ Online) + Tutorials + Practical/Dissections + Seminar
Assessment Strategy	End semester examination at the end module In addition to the End Semester Examination the entire content of the preclinical phase is assessed at the comprehensive examination
References/Reading Materials	1. Wheater's Functional HistologyYoung, B., Heath, J.W., Stevens, A., Lowe, J.S., Wheater, P.R., & Burkitt, H.G. 7th edition, 2000, 2. Edinburgh: Churchill Livingstone Langman's Medical EmbryologySadler, T.W., Jan Langman, 13th edition, 2015, 3. Lippincott's Illustrated Reviews Biochemistry Harvey, R.A. & Ferrier, D.R., 5th edition, 2018, Lippincott Williams & Wilkins, a Wolters Kluwer business

Level	1	Semester	II		
Course Code	MED1135	Course Name	**Body Tissues and Locomotor System 1**		
Credits Value	5	Total Lecture Hours	33	Pre-requisites	
GPA/NGPA	GPA	Total Tutorial Practical hours	61		
Core/Optional	Core	Independent Learning hours	156		
Course Aim/Intended Learning Outcomes:		*At the completion of this course student will be able to* 1. Describe the growth and development, organization and structure of the tissues of the musculoskeletal system and autonomic nervous system. 2. Describe gross structure of limbs and the microscopic structure of musculoskeletal tissues. 3. Outline the basic biomechanics of limb movements and adaptations to perform their functions. 4. Analyze and present a critical evaluation of the anatomical basis of related disorders, diagnostic and management strategies. 5. Describe the structural arrangement of the different types of muscles and its functions. 6. Outline the chemical nature of bone and cartilage in relation to their function, and the process of bone remodelling.		
Course Content (Main topics, Sub topics)		**Body tissues** Introduction to tissues, Epithelial tissues, Connective tissues, Muscle tissue, Nerve tissue, Autonomic nervous system, Muscle disorders. **Skin and subcutaneous tissues** Structural arrangement of skin and subcutaneous tissues and their functions. **Musculoskeletal system** Joints and movements, Gross Anatomy of muscles, Embryological development of limbs and development anomalies, Surface marking and osteology of upper limb, Pectoral region and breast, Shoulder and scapular region, Axilla and Brachial plexus, Arm, Cubital fossa and forearm, Hand structure and functions, Joints of the upper limb, Blood supply, Venous drainage and lymphatic drainage of the upper limb, Innervations of the upper limb and clinical correlation, Surface marking and osteology of lower limb, Femoral region and thigh, Gluteal region and popliteal fossae, Leg and foot, Joints of the		

	lower limb, Blood supply, Venous drainage and lymphatic drainage of the lower limb, Innervations of the lower limb and clinical correlation, Arches of the foot, Posture and gait, Imaging of the limbs. **Bone and cartilage** Histology of skeletal tissues, Chemical nature of bone and cartilage in relation to their function and understand the process of bone remodeling. Metabolic bone disorders; rickets, osteomalacia, osteoporosis, Biomarkers of disease diagnosis; skeletal muscles.
Teaching/Learning Methods *[Each course unit should preferably have at least one or two sessions that are available online]*	Lectures + Tutorials + SGD + Dissection/Practical + Seminars + formative assessments
Assessment Strategy	End semester examination at the end module In addition to the End Semester Examination the entire content of the preclinical phase is assessed at the comprehensive examination
References/Reading Materials	1. Clinical Anatomy, Applied anatomy for students and junior doctors 2. Harold, E., Vishy, M., 13th edition, 2013, Chichester, West Sussex, UK Wiley-Blackwell 3. Wheater's Functional Histology, Young, B., Heath, J.W., Stevens, A., Lowe, J.S., Wheater, P.R., & Burkitt, H.G. 7th edition, 2000, Edinburgh: Churchill Livingstone 4. Lasts Human Anatomy: Regional and Applied, Sinnatamby, C.S., 12th edition, 2011, Churchill Livingstone 5. Langman's Medical Embryology, Sadler, T.W, Jan Langman, 13th edition, 2015, Lippincott Williams & Wilkins/Wolters Kluwer Health, London, Philadelphia

<table>
<tr><td>Year</td><td>1</td><td>Semester</td><td colspan="3">I</td></tr>
<tr><td>Course Code</td><td>MED1143</td><td>Course Name</td><td colspan="3">Blood and Immune System 1</td></tr>
<tr><td>Credits Value</td><td>3</td><td colspan="2">Total Lecture Hours</td><td>20</td><td rowspan="3">Pre-requisites</td></tr>
<tr><td>GPA/NGPA</td><td>GPA</td><td colspan="2">Total Tutorial Practical hours</td><td>34</td></tr>
<tr><td>Core/Optional</td><td>Core</td><td colspan="2">Independent Learning hours</td><td>96</td></tr>
<tr><td colspan="2">Course Aim/Intended Learning Outcomes:</td><td colspan="4">At the completion of this course student will be able to
1. Describe the composition of blood and functional role of its components.
2. Demonstrate an understanding of the functional relevance of the structure of haemoglobin, the metabolism of red blood cells, and the plasma proteins
3. Describe the structure, function and derangement of the human immune system.
4. Describe the factors affecting haemostasis and its disorders</td></tr>
<tr><td colspan="2">Course Content (Main topics, Sub topics)</td><td colspan="4">Blood
Haemopoiesis, anaemia, plasma proteins, platelets, haemostasis, blood grouping, blood transfusion, rh incompatibility and haemolytic disease of the newborn
Immune system
Development of immune system, gross and microscopic anatomy of immune organs, non-specific immunity, specific immunity
Haemoglobin
Structure function relationship of haemoglobin, disorders of abnormal haemoglobin, thalassemia, sickle cell anaemia
Plasma proteins
Plasma proteins, functions and detection and quantification, classes and components of lipoproteins, structure of immunoglobulins
Red cell metabolism
Importance of glutathione, carbonic anhydrase, 2,3-Bisphosphoglycerate and hexose monophosphate shunt, and in red cell metabolism</td></tr>
</table>

	Antibodies Antibodies as therapeutic agents and diagnostic reagents **Interpretation of laboratory results** Clinical enzymology – analysis of non-functional enzymes in blood
Teaching/Learning Methods	Lectures + Practical + Tutorials + PBL + Seminar
Assessment Strategy	End semester examination
	In addition to the End Semester Examination the entire content of the preclinical phase is assessed at the comprehensive examination
References/Reading Materials	**Recommended Reading/references:** 1. Lippincott's Illustrated Reviews Biochemistry Harvey, R.A. & Ferrier, D.R,.5th edition, 2018, Lippincott Williams & Wilkins, a Wolters Kluwer business 2. Ganong's Review of Medical Physiology, Barrett, K.E., Barman, S.M., Boitano, S., Heddwen, B.L. 25th edition, 2012, McGraw-Hill. New York. 3. Basic Immunology - Functions and Disorders of the Immune System Abul, K.A., Andrew, H.H.L., and Shiv P. 5th Edition, 2015, Elsevier 4. Hoffbrand's Essential Haematology, Victor, H., Paul, A.H.M., 7th Edition,2015, Wiley- Blackwell

<table>
<tr><td>Level</td><td>2</td><td>Semester</td><td colspan="3">I</td></tr>
<tr><td>Course Code</td><td>MED2113</td><td>Course Name</td><td colspan="3">Cardiovascular System 1</td></tr>
<tr><td>Credits Value</td><td>3</td><td colspan="2">Total Lecture Hours</td><td>26</td><td rowspan="3">Pre-requisites</td></tr>
<tr><td>GPA/NGPA</td><td>GPA</td><td colspan="2">Total Practical/Tutorial/Seminar/SGD/PBL/ hours</td><td>28</td></tr>
<tr><td>Core/Optional</td><td>Core</td><td colspan="2">Independent Learning hours</td><td>96</td></tr>
<tr><td colspan="2">Course Aim/Intended Learning Outcomes:</td><td colspan="4">At the completion of this course student will be able to

1. Outline the organization and structures of the thorax and mediastinum.
2. Describe the gross structure, embryological development and microscopic structure of the organs/ organ systems in the cardiovascular system and mediastinum.
3. Describe the functions and perform clinical examinations related to the cardiovascular system in the hospital.
4. Explain the physiological basis of common disorders of the cardiovascular system and their investigation.</td></tr>
<tr><td colspan="2">Course Content (Main topics, Sub topics)</td><td colspan="4">Mediastinum, cardiovascular system

Mediastinum and its divisions and contents, Development of heart, arterial and venous system & congenital anomalies, histology of heart and blood vessels, gross structure of heart, conducting system, innervations of heart, coronary circulation and venous drainage, surface marking of heart and great vessels, gross anatomy of great vessels: - aorta, pulmonary trunk, superior and inferior vena cava, cardiac imaging, clinical correlation of cardiovascular anatomy.

Cardiac function

Electrical properties of cardiac muscles, excitation-contraction coupling, mechanical events of the cardiac cycle, pressure changes in atria, ventricles, large arteries, veins, jugular venous pulse, arterial pulse, heart sounds and murmurs, myocardial contractility (starling's law), arterial blood pressure, cardiovascular regulatory mechanisms, control of peripheral circulation, special circulation;</td></tr>
</table>

	cerebral, coronary, feto-placental, circulation of skin, kidney and gut, cardiovascular adjustments in haemorrhage and shock, pathophysiology of heart failure, hypertension, ECG, atherosclerosis and its risk factors
Teaching/Learning Methods	Lectures + Tutorials + Practical + Seminar + Hospital visit
Assessment Strategy	End semester examination
	In addition to the End Semester Examination the entire content of the preclinical phase is assessed at the comprehensive examination
References/Reading aterials	1. Barrett K.E., Barman S.M., Yuan J.X.J., & Brooks. H. (2019) Ganong's Review of Medical Physiology. 26th edition, New York: McGraw-Hill 2. Hall, J. E., Hall, M.E., Guyton, A.C. (2021) Guyton and Hall Textbook of Medical Physiology. 14th edition, Philadelphia: Elsevier 3. Sinnatamby, C. S. (2011) Lasts Human Anatomy: Regional and Applied, 12th edition, New York: Elsevier Health Sciences 4. Ellis, H. & Mahadevan, V. (2013) Clinical Anatomy, 13th edition, Chichester, West Sussex, U.K: Wiley-Blackwell

<table>
<tr><td>Level</td><td>1</td><td>Semester</td><td colspan="4">II</td></tr>
<tr><td>Course Code</td><td>MED1213</td><td>Course Name</td><td colspan="4">Respiratory System 1</td></tr>
<tr><td>Credits Value</td><td>3</td><td colspan="2">Total Lecture Hours</td><td>24</td><td rowspan="3">Pre-requisites</td><td rowspan="3"></td></tr>
<tr><td>GPA/NGPA</td><td>GPA</td><td colspan="2">Total Practical/Tutorial/Seminar/SGD/ PBL/ hours</td><td>20</td></tr>
<tr><td>Core/Optional</td><td>Core</td><td colspan="2">Independent learning hours</td><td>106</td></tr>
<tr><td colspan="2">Course Aim/Intended Learning Outcomes:</td><td colspan="5">At the completion of this course student will be able to

1. Describe the gross structure, embryological development and microscopic structure of the organs/ organ systems in the respiratory system.
2. Explain the anatomical basis of related disorders of respiratory system, diagnostics and management strategies.
3. Describe the importance of surfactant in lung function
4. Describe the functions and perform clinical examinations related to the respiratory system.
5. Explain the physiological basis of related disorders of the respiratory system and their investigation.</td></tr>
<tr><td colspan="2">Course Content (Main topics, Sub topics)</td><td colspan="5">Structure of the thorax and respiratory system

Thoracic cage and surface marking, embryological development of respiratory system, structure of the upper airway, larynx, structure of the lower airway, lungs and pleura, diaphragm, histology of airway and lungs, cross sectional anatomy of thorax, imaging and endoscopy of respiratory system, applied anatomy of chest wall and clinical correlation.

Lung Surfactant

Composition of surfactant, its role in normal respiration, and how it prevents respiratory distress.

Respiration, gas exchange and pulmonary circulation

Factors affecting ventilation, gas exchange, pulmonary circulation, other functions of respiratory system, O_2 and CO_2 transport, regulation of respiration, respiratory adjustments in health and disease, hypercapnoea, hypocapnoea, O_2 treatment, other respiratory abnormalities, effects of increased barometric pressure.</td></tr>
</table>

Teaching/Learning Methods	Lectures + Practicals + Tutorials + Hospital visit + Seminars
Assessment Strategy	End semester examination In addition to the End Semester Examination the entire content of the preclinical phase is assessed at the comprehensive examination
References/Reading Materials	1. Chummy S. Sinnatamby (2013) Lasts Human Anatomy, 12th edition, Churchill Livingstone 2. Harold Ellis; Vishy Mahadevan (2013) Applied Anatomy for Students and Junior Doctors , 13th edition, Wiley Blackwell 3. Harper's Illustrated Biochemistry Victor W. Rodwell, David A. Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil, 31st edition, 2018, McGraw-Hill; Illustrated edition 4. Ganong's Review of Medical Physiology 26th Edition 5. Textbook of Medical Physiology, Guyton and Hall 14th Edition

Level	1	Semester	II		
Course Code	MED1235	Course Name	**Gastrointestinal & Hepatobiliary System 1**		
Credits Value	5	Total Lecture Hours	37	Pre-requisites	
GPA/NGPA	GPA	Total Tutorial Practical hours	42		
Core/Optional	Core	Independent Learning hours	121		
Course Aim/Intended Learning Outcomes:		*At the completion of this course student will be able to* 1. Describe the organization, structures of the abdomen, embryological development and histology of the gastrointestinal system with reference to their functions. 2. Describe digestion and absorption of nutrients 3. Describe the functions of gastrointestinal system and physiological basis of disorders affecting gastrointestinal system and their investigations. 4. Describe the anatomical basis for the related disorders,diagnostics and management strategies.			
Course Content (Main topics, Sub topics)		**Abdomen and gastrointestinal system** Surface anatomy and surface marking of the abdomen, Anterior abdominal wall and inguinal canal, Abdominal cavity, Embryological development of gastrointestinal tract,Functions and histology of GIT; Mouth, Oral cavity, Tongue, Salivary glands, Pharynx,Oesophagus, Stomach, Gastric secretion and gastric motility, Peptic ulcers and other functions of the stomach, Duodenum, Jejunum, Ileum, Embryological development of accessory glands of GIT, Histology of accessory glands of GIT, Liver and biliary system,Pancreas, Large intestine, rectum and anal canal, Blood supply, venous drainage, lymph drainage and nerve supply of GIT, Abdominal aorta, Posterior abdominal wall, Imaging and endoscopy of GIT, Clinical correlation of GIT Cross sectional Anatomy of abdomen,Regulation of functions of GIT. **Digestion & Absorption of Food** Digestion and absorption of carbohydrates, proteins and lipids. Absorption of vitamins and minerals. **Biliary and xenobiotic metabolism** Haem and bilirubin metabolism, formation secretion and transport of bile, gallstone formation, jaundice – mechanism,			

	metabolism of xenobiotics and alcohol, Liver function tests.
Teaching/Learning Methods	Lectures + Tutorials + Dissection/practical+ Seminars
Assessment Strategy	End semester examination
	In addition to the End Semester Examination the entire content of the preclinical phase is assessed at the comprehensive examination
References/Reading Materials	1. Chummy S. Sinnatamby (2013) Lasts Human Anatomy, 12th edition, Churchill Livingstone 2. Lawrence E. Wineski (2018) Snell's Clinical Anatomy, 10th edition, Wolters Kluwer Health 3. Harold Ellis; Vishy Mahadevan (2013), Applied Anatomy for Students and Junior Doctors, 13th edition, Wiley Blackwell 4. Kim E Barrett, Susan M. Barman, Scott Boitano, Heddwen L, Brooks, (2015) Ganong's Review of Medical Physiology, 25th edition, McGraw-Hill Education 5. Hall, J. E., Hall, M.E., Guyton, A.C. (2021) Guyton and Hall Textbook of Medical Physiology. 14 th edition, Philadelphia: Elsevier 6. Victor W. Rodwell, David A. Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil, (2009) Harper's Illustrated Biochemistry,31st edition, McGraw-Hill Education 7. Richard Harvey, Denise Ferrier (2010) Lippincott's Illustrated Reviews Biochemistry, 5th edition, Lippincott Williams & Wilkins

Level	1	Semester	II		
Course Code	MED1244	Course Name	**Metabolism and Nutrition**		
Credits Value	4	Total Lecture Hours	41	Pre-requisites	
GPA/NGPA	GPA	Total Practical/Tutorial/SGD/PBL hours	30		
Core/Optional	Core	Independent Learning	129		

Course Aim/Intended Learning Outcomes:	*At the completion of this course student will be able to* 1. Describe the anatomical basis for the related disorders,diagnostics and management strategies. 2. Outline the chemical pathways involved in cellular respiration, synthesis of biological macromolecules and integration of metabolism. 3. Outline the components of diet that provide macronutrients and micronutrients and understand the importance of micronutrients. 4. Outline the process of gene expression, and the basics of cell cycle. 5. Outline the metabolism of lipoproteins, biliary components and xenobiotics. 6. Outline the assessment of nutritional status of individuals and populations.
Course Content (Main topics, Sub topics)	**Digestion & Absorption of Food** Digestion and absorption of carbohydrates, proteins and lipids. Absorption of vitamins and minerals. **Cellular Respiration** Glycolysis, TCA cycle, respiratory chain, oxidative phosphorylation and oxidation of fatty acids. **Synthesis of macromolecules** Gluconeogenesis, glycogen metabolism, HMP shunt galactose & fructose metabolism, synthesis of fatty acids, triglycerides, cholesterol, and ketone body metabolism, amino acid metabolism and urea cycle, synthesis of creatine phosphate, nucleic acid metabolism.

	Sources of food Plant and animal origin foods, diet formulation and functional foods. **Gene Expression & cell cycle** DNA organization, replication, transcription, translation, regulation of gene expression, post-translational modifications and related disorders, basic events in cell cycle. **Biliary and xenobiotic metabolism** Haem and bilirubin metabolism, formation secretion and transport of bile, gallstone formation, jaundice – mechanism, metabolism of xenobiotics and alcohol, Liver function tests. **Lipid and lipoprotein metabolism** Lipid transport and lipoprotein metabolism, Interpretation of lipid profiles. **Vitamin and Mineral metabolism** Role of vitamins and minerals in body functions, their sources and conditions relating to assimilation. **Integration of metabolism** Integration of the metabolic pathways and their integrated regulation. **Assessment of nutritional status** Biochemical parameters for the assessment of nutritional status. **Molecular basis of selected disorders** Biochemical basis of derangement of glucose homeostasis and biochemical basis of complications of diabetes. Inherited Metabolic Diseases, Molecular basis of cancer, Molecular basis of aging. **Nutrition in health and disease** Principles of Nutrition, Energy and Protein requirements at different physiological status, Disorders in Digestion

	and Absorption Biochemical basis of nutrition in diseases, DM, HT, hyperlipidaemia, CKD chronic liver failure, trauma and major surgeries Biochemistry of alcoholism and substance abuse including cigarette smoking
Teaching/Learning Methods *[Each course unit should preferably have at least one or two sessions that are available online]*	Lectures + Tutorials/SGD +, Dissection/practical + Seminar
Assessment Strategy	End semester examination
	In addition to the End Semester Examination the entire content of the preclinical phase is assessed at the comprehensive examination
References/Reading Materials	**Recommended Reading/references:** 1. Clinical Anatomy, Applied anatomy for students and junior doctors Harold, E., Vishy, M.,13th edition, 2013, Chichester, West Sussex, UK Wiley-Blackwell 2. Wheater's Functional Histology Young, B., Heath, J.W., Stevens, A., Lowe, J.S., Wheater, P.R., & Burkitt, H.G. 7th edition, 2000, Edinburgh: Churchill Livingstone 3. Lasts Human Anatomy: Regional and Applied Sinnatamby, C.S., 12th edition, 2011, Churchill Livingstone 4. Langman's Medical Embryology Sadler, T.W, Jan Langman, 13th edition, 2015, Lippincott Williams & Wilkins/Wolters Kluwer Health, London, Philadelphia 5. Clinically Oriented Anatomy, Keith L. Moore, Arthur F. Dalley I.I. & Anne M.R. Agur. 7th edition, 2014, Wolters Kluwer Health/Lippincott Williams & Wilkins, 6. Cunningham's Manual of Practical Anatomy, VOL II, Thorax and abdomen Rachel, K., Oxford University Press, New Delhi 7. Harper's Illustrated BiochemistryVictor W. Rodwell, David A. Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil, 31st edition, 2018, McGraw-Hill; Ill

Level	2	Semester	I			
Course Code	MED2112	Course Name	**Renal and Urinary System 1**			
Credits Value	2	Total Lecture Hours		20	Pre-requisites	
GPA/NGPA	GPA	Total Practical/Tutorial/Seminar/SGD/PBL/ hours		20		
Core/Optional	Core	Independent Learning hours		60		
Course Aim/Intended Learning Outcomes:		*At the completion of this course student will be able to* 1. Describe the functions, the physiological basis of common disorders of renal system, and their investigations. 2. Outline the Mechanisms involved in excretion, renal function tests and urine analysis 3. Describe the embryological development, gross and microscopic structure of the organs/ organ systems in the renal and urinary systems. 4. Explain the anatomical basis of related disorders of renal and urinary systems, diagnostics and management strategies.				
Course Content (Main topics, Sub topics)		**Course content:** Introduction to renal and urinary systems, Embryological development of renal and urinary systems, Histology of renal and urinary systems, Kidney, Ureter, Urinary bladder, Urethra, Imaging of renal and urinary systems, Clinical correlation of renal and urinary systems, GFR, Renal clearance, Countercurrent mechanism, Tubular functions, Water conservation, Acidification of urine, Regulation of Na+, Cl-, K+ excretion, Other functions of the kidney, Diuretics, Alteration of physiology in renal disorders, Functions and dysfunctions of bladder, Acid/base and electrolyte disturbances, and their compensation, Biomarkers of renal disease diagnosis. **Interpretation of laboratory results** Interpretation of urinalysis, Kidney function tests.				
Teaching/Learning Methods *[Each course unit should preferably have at least one or two sessions that are available online]*		Lectures + Tutorials/SGD + Dissection/practical + Seminar				

Assessment Strategy	End semester examination
	In addition to the End Semester Examination the entire content of the preclinical phase is assessed at the comprehensive examination
References/Reading Materials	1. Chummy S. Sinnatamby (2013) Lasts Human Anatomy, 12th edition, Churchill Livingstone 2. Lawrence E. Wineski (2018) Snell's Clinical Anatomy, 10th edition, Wolters Kluwer Health 3. Harold Ellis; Vishy Mahadevan (2013), Applied Anatomy for Students and Junior Doctors, 13th edition, Wiley Blackwell

<table>
<tr><td>Level</td><td>2</td><td>Semester</td><td colspan="3">I</td></tr>
<tr><td>Course Code</td><td>MED2122</td><td>Course Name</td><td colspan="3">Endocrine System 1</td></tr>
<tr><td>Credits Value</td><td>2</td><td colspan="2">Total Lecture Hours</td><td>20</td><td rowspan="3">Pre-requisites</td></tr>
<tr><td>GPA/NGPA</td><td>GPA</td><td colspan="2">Total Practical/Tutorial/Seminar/SGD/PBL/ hours</td><td>8</td></tr>
<tr><td>Core/Optional</td><td>Core</td><td colspan="2">Independent Learning hours</td><td>72</td></tr>
<tr><td>Course Aim/Intended Learning Outcomes:</td><td colspan="5">At the completion of this course student will be able to

1. Describe of the gross structure, development and microscopic structure of endocrine organs
2. Outline the synthesis storage and transport of hypothalamic pituitary, adrenal and thyroid hormones.
3. Describe the functions of hypothalamic pituitary, adrenal and thyroid hormones.
4. Describe the synthesis of Pancreatic hormones, and their mechanism of actions.
5. Explain the physiological basis of common disorders of the endocrine system, and their laboratory investigations.</td></tr>
<tr><td>Course Content (Main topics, Sub topics)</td><td colspan="5">Endocrine organs

Introduction to endocrine system and hypothalamo-pituitary axis, Pituitary gland, Functions of pituitary hormones, Pituitary dysfunctions, Thyroid gland, Adrenal cortex, Adrenal medulla, synthesis and functions of adrenal and thyroid hormones, Endocrine pancreas, Action of pancreatic hormones, Diabetes mellitus and laboratory diagnosis of diabetes and its complications, Physiology of calcium homeostasis, Other endocrine glands.

Functional organization of endocrine system

Types of hormones, transport in blood and types of receptor in target tissues.

Interpretation of laboratory results

Interpretation of hormone profiles (thyroid, adrenal cortical hormones, and parathyroid).

Molecular Biology

Molecular techniques in Medicine, Human insulin</td></tr>
</table>

	production and gene therapy.
Teaching/Learning Methods *[Each course unit should preferably have at least one or two sessions that are available online]*	Lectures + Tutorials/SGD + Dissection/ Practical +Seminar
Assessment Strategy	End semester examination In addition to the End Semester Examination the entire content of the preclinical phase is assessed at the comprehensive examination
References/Reading Materials	1. Lawrence E. Wineski (2018) Snell's Clinical Anatomy, 10th edition, Wolters Kluwer Health 2. Harold Ellis; Vishy Mahadevan (2013), Applied Anatomy for Students and Junior Doctors, 13th edition, Wiley Blackwell 3. Young, B., Heath, J. W., Stevens, A., Lowe, J. S., Wheater, P. R., & Burkitt, H. G. (2000) Wheater's Functional Histology. 7th edition, Edinburgh: Churchill Livingstone 4. Cunningham, D.J. & Koshi, R. (2017) Cunningham's Manual of Practical Anatomy (II), 16th edition, Oxford: New York Tokyo 5. Alan J. Detton (2021), Grant's Dissector, 17th Edition, Lippincott Connect 6. Peter H. Abrahams, Jonathan D. Spratt, Marios Loukas, Albert VanSchoor, Ralph T. Hutchings (2018), Clinical Atlas of Human Anatomy, 8th Edition, Elsevier Health Sciences 7. T.W. Sadler (2014) Langman's Medical Embryology,13th edition, Lippincott Williams & Wilkins 8. Barrett K.E., Barman S.M., Yuan J.X.J., & Brooks. H. (2019) Ganong's Review of Medical Physiology. 26th edition, New York: McGraw-Hill 9. Hall, J. E., Hall, M.E., Guyton, A.C. (2021) Guyton and Hall Textbook of Medical Physiology. 14th edition, Philadelphia: Elsevier. 10. Praveen Kumar, Michael Clark (2016) Kumar and Clark's Clinical Medicine , 9th edition , Elsevier 11. Victor W. Rodwell, David A. Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil, (2009) Harper's Illustrated Biochemistry,31st edition, McGraw-Hill Education

Level	2	Semester	I		
Course Code	MED 2133	Course Name	**Reproductive System 1**		
Credits Value	3	Total Lecture Hours	23	Pre-requisites	
GPA/NGPA	GPA	Total Practical/Tutorial/Seminar/SGD/PBL/ hours	32		
Core/Optional	Core	Independent Learning	95		
Course Aim/Intended Learning Outcomes:		*At the completion of this course student will be able to* 1. Demonstrate the clinical examination related to the reproductive system and explain the physiological basis of common disorders of the reproductive system, and their investigations. 2. Outline the organization and structures of the pelvis and perineum. 3. Describe the gross structure, embryological development and microscopic structure of the male and female reproductive organs. 4. Explain the anatomical basis of common disorders of the reproductive system, their diagnosis and management.			
Course Content (Main topics, Sub topics)		**Pelvis and perineum** Surface anatomy and osteology of pelvis, Pelvis and pelvic viscera, Perineum and external genitalia, Blood supply, venous drainage, lymphatics of pelvis and perineum, Main nerve plexus and innervations of pelvis and perineum, Imaging of Pelvis, Clinical correlation of pelvis and perineum. **Reproductive organs and functions** Introduction to reproduction, Embryological development of reproductive organs, Histology of reproductive organs, Breast, Ovary, Fallopian tube, Uterus, Vagina, Ovarian cycle, Gametogenesis, Ovarian hormones, Uterine, cervical and vaginal cycle, Testis, Epididymis, Ductus deferens, Prostate gland, Ejaculatory ducts, Seminal vesicles, Seminal fluid, Ejaculation and endocrine functions of testis, Puberty and testicular dysfunctions, Puberty and menopause, Contraception, Human sexuality, Male sexual response, Female sexual response, Pregnancy, Lactation.			
Teaching/Learning Methods		Lecture- + Tutorial/SGD + Dissection/practical + Seminar			
Assessment Strategy		End semester examination			

	In addition to the End Semester Examination the entire content of the preclinical phase is assessed at the comprehensive examination
References/Reading Materials	**Recommended Reading/references:** 1. Clinical Anatomy, Applied anatomy for students and junior doctors, Harold, E., Vishy, M., 13th edition, 2013, Chichester, West Sussex, UK Wiley-Blackwell 2. Wheater's Functional Histology, Young, B., Heath, J.W., Stevens, A., Lowe, J.S., Wheater, P.R., & Burkitt, H.G. 7th edition, 2000, Edinburgh: Churchill Livingstone 3. Lasts Human Anatomy: Regional and Applied, Sinnatamby, C.S., 12th edition, 2011, Churchill Livingstone 4. Langman's Medical Embryology, Sadler, T.W., Jan Langman, 13th edition, 2015, Lippincott Williams & Wilkins/Wolters Kluwer Health, London, Philadelphia 5. Clinically Oriented Anatomy, Keith L. Moore, Arthur F. Dalley I.I. & Anne M.R. Agur. 7th edition, 2014, Wolters Kluwer Health/Lippincott Williams & Wilkins 6. Cunningham's Manual of Practical Anatomy, VOL II, Thorax and abdomen Rachel, K., Oxford University Press, New Delhi 7. Harper's Illustrated Biochemistry, Victor W. Rodwell, David A. Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil, 31st edition, 2018, McGraw-Hill; Illustrated edition 8. Lippincott's Illustrated Reviews Biochemistry, Harvey, R.A. & Ferrier, D.R., 5th edition, 2018, Lippincott Williams & Wilkins, a Wolters Kluwer business 9. Ganong's Review of Medical Physiology, Barrett, K.E., Barman, S.M., Boitano, S., Heddwen, B.L., 25th edition, 2012, McGraw-Hill. New York.

Level	2	Semester	1		
Course Code	MED2145	Course Name	**Nervous System I**		
Credits Value	5	Total Lecture Hours	50	Pre-requisites	
GPA/NGPA	GPA	Total Practical/Tutorial/Seminar/SGD/ PBL/ hours	69		
Core/Optional	Core	Independent Learning hours	131		
Course Aim/Intended Learning Outcomes:		*At the completion of this course student will be able to* 1. Outline the organization and structures of the head and neck, and vertebral column and back. 2. Describe the gross structure, embryological development and microscopic structure of the central nervous system. 3. Explain the anatomical basis of disorders of head and neck, vertebral column, back and nervous system, their diagnosis and management. 4. Describe the physiological and biochemical basis of common disorders of the nervous system, and their investigation. 5. Describe of the structure and function of neurotransmitters and their receptors.			
Course Content (Main topics, Sub topics)		**Head and neck** Surface Anatomy, surface marking and osteology of head and neck, Scalp, face, temporal fossa, suboccipital and parotid region, Embryological development of the face and neck, pharyngeal arches, Infratemporal region, pterygopalatine fossa and temporomandibular junction (TMJ), Facial structure and contents of neck, Root of the neck, Oral cavity, soft palate and hard palate, Larynx and pharynx, Nose and paranasal sinuses, Eye and ear, Blood supply, venous drainage, lymphatic drainage of head and neck, Imaging of head and neck, Clinical correlation of head and neck. **Vertebral column and back** Vertebral column and muscles of the back, Imaging of head and neck, Imaging of vertebral column and back, Clinical correlation of vertebral column and back. **Central nervous system** Embryological development of CNS, Arrangement of CNS (brain and spinal cord), Cerebellum, Meninges, CSF, Ventricles, Cranial nerves, Sensory and motor systems, Extra pyramidal system, Peripheral nerves, Blood supply and venous drainage of brain,			

	Imaging of central nervous system, Clinical correlation of CNS, Basic principles of nerve functions, Synapse, Pharmacology, Biochemistry of neurotransmitters, Sense organs and receptors, Hearing tests, audiometry, Monosynaptic reflexes,Polysynaptic reflexes, Light perception, Balance and nystagmus, Physiology of pain, Posture gait and ataxia, Learning and memory, Behavior and emotions, Limbic system, Cerebrospinal fluid, Sleep, EEG, ENG/EMG, Examination of CNS (cranial nerves & higher functions, sensory system, motor system & reflexes), Biochemical basis of neurological disorders; Alzheimers, Parkinson's, depression, schizophrenia, organophosphate poisoning.
Teaching/Learning Methods	Lecture + Tutorials/SGD + Dissection/practical + Seminar
Assessment Strategy	End semester examination In addition to the End Semester Examination the entire content of the preclinical phase is assessed at the comprehensive examination
References/Reading Materials	1. Clinical Anatomy, Applied anatomy for students and junior doctorsHarold, E., Vishy, M., 13th edition, 2013, Chichester, West Sussex, UK WileyBlackwell 2. Wheater's Functional Histology Young, B., Heath, J.W., Stevens, A., Lowe, J.S., Wheater, P.R., & Burkitt, H.G. 7th edition, 2000, Edinburgh: Churchill Livingstone 3. Lasts Human Anatomy: Regional and Applied Sinnatamby, C.S., 12th edition, 2011, Churchill Livingstone 4. Langman's Medical Embryology Sadler, T.W., Jan Langman, 13th edition, 2015, Lippincott Williams & Wilkins/Wolters Kluwer Health, London, Philadelphia 5. Clinically Oriented Anatomy Keith L. Moore, Arthur F. Dalley I.I. & Anne M.R. Agur. 7th edition, 2014, Wolters Kluwer Health/Lippincott Williams & Wilkins, 6. Cunningham's Manual of Practical Anatomy, VOL III, Head and neck Rachel, K., Oxford University Press, New Delhi 7. Harper's Illustrated Biochemistry Victor W. Rodwell, David A. Bender, Kathleen M. Botham, Peter J. Kennelly, P. Anthony Weil, 31st edition, 2018, McGraw-Hill; Illustrated edition 8. Lippincott's Illustrated Reviews Biochemistry Harvey, R.A. & Ferrier, D.R., 5th edition, 2018, Lippincott Williams & Wilkins, aWolters Kluwer business

Level	2	Semester	II			
Course Code	MED2153	Course Name	**Basic Sciences for Clinical Practice**			
Credits Value	3	Total Lecture Hours		20	Pre-requisites	
GPA/NGPA	GPA	Total Practical/Tutorial/Seminar/SGD/PBL/ hours		36		
Core/Optional	Core	Independent Learning hours		94		
Course Aim/Intended Learning Outcomes:		*At the end of completion of the module, students should be able to* 1. Explain the relevance of basic sciences to the study of paraclinical and clinical sciences. 2. Describe the anatomical, pathophysiological, chemical, biochemical and molecular basis of common disorders. 3. Explain the molecular techniques used in genetic studies and disease diagnosis. 4. Discuss the importance of nutrition in health and disease.				
Course Content (Main topics, Sub topics)		This module which consists of components of three traditional subjects (Anatomy, Biochemistry and Physiology) aims at revising the basic sciences modules, relevance of basic sciences in the study of paraclincal subjects/sciences and clinical practice. **Myasthenia** The pathophysiological basis of clinical features of myasthenia, anatomical basis of clinical features of myasthenia, biochemical basis of diagnostic tests and the treatment of the disease. **Diabetes*** A complicated case of a type II diabetes mellitus with all the micro-vascular and macro-vascular complications, pathophysiological basis of the development of the clinical features of the patient, anatomical basis of the different clinical features of myocardial infarctions in different territories due to macro-vascular involvement, biochemical basis of the diagnosis and treatment of the disease. **Thalassaemia** Complicated case of a thalassaemia major patient with				

	iron overload features. Pathophysiological basis of the clinical features of the patient, biochemical and pathophysiological basis of clinical features of iron overload. Biochemical basis of the treatment of iron chelation. **Haemophelia** Types of haemophelia, inheritance of the disease in relation to genetics, pathophysiological basis of the clinical features of the disease and the treatment modalities, biochemical basis of the disease diagnosis and the detection of the complications. **Diarrhoea** Types of diarrhea, biochemical and physiological basis of the treatment modalities. **Chronic Liver disease** Describe the disease, Anatomical basis of the development of clinical features, Pathophysiological basis of clinical features, biochemical basis of the diagnosis, control and the treatment of the disease. **Diseases of the thyroid gland** Describe the disease conditions of thyroid gland, anatomical, physiological and biochemical basis of the development of the clinical features, biochemical basis of the diagnosis and the monitoring of the disease. **Cut injury to wrist** Different types of injury involving different planes of the wrist, Anatomical basis of the clinical features of different injury types, anatomical and pathophysiological basis of the treatment modalities. **Cerebrovascular accident** Ischaemic and haemorrhagic stroke, Anatomical basis of the clinical features of different levels of occlusion in a relevant artery, Pathophysiological basis of the worsening or improvement of clinical features of stroke patient. **Alzheimer's disease** Biochemical and pathophysiological basis of clinical

	features and the treatment of the disease. **Spinal cord injuries** Different types of injury involving different places of the spinal cord, Anatomical basis of the development of clinical features, Pathophysiological basis of clinical features, Anatomical basis of the diagnostics and management strategies. **Nutritional Deficiency disorders** Pathological basis of clinical features of protein energy malnutrition, vitamin deficiency and mineral deficiency.
Teaching/Learning Methods	Lecture +SGD + Dissection/practical + Seminar + Presentation + Case Discussion
Assessment Strategy	**Assessment of this module is included in the Second MBBS comprehensive examination.** In addition to this module, the entire content of the preclinical phase is assessed at the comprehensive examination
References/Reading Materials	1. Clinical Anatomy, Applied anatomy for students and junior doctors 2. Harold, E., Vishy, M., 13th edition, 2013, Chichester, West Sussex, UK Wiley- Blackwell 3. Wheater's Functional Histology, Young, B., Heath, J.W., Stevens, A., Lowe, J.S., Wheater, P.R., &Burkitt, H.G. 7th edition, 2000, Edinburgh: Churchill Livingstone 4. Lasts Human Anatomy: Regional and Applied, Sinnatamby, C.S., 12th edition, 2011, Churchill Livingstone 5. Langman's Medical Embryology, Sadler, T.W., Jan Langman, 13th edition, 2015, Lippincott Williams & Wilkins/Wolters Kluwer Health, London, Philadelphia 6. Clinically Oriented Anatomy Keith L. Moore, Arthur F. Dalley I.I. & Anne M.R. Agur. 7th edition, 2014, Wolters Kluwer Health/Lippincott Williams & Wilkins, 7. Cunningham's Manual of Practical Anatomy, VOL III, Head and neck Rachel, K., Oxford University Press, New Delhi

Course No	: MED2213
Course Title	: Foundation in Pathology
Credits	: 3
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable the students to gain the knowledge in basic general pathology concepts and enable them to achieve the competencies to apply such knowledge to understand the clinical features when encountered in their clinical exposure.

Intended Learning Outcomes

At successful completion of the course, students should be able to:

1. Describe the basic pathological processes/concepts in terms of pathogenesis and morphological changes in tissues.
2. Explain the association of morphological changes with basic clinical features.
3. Describe specimen collection, transport and proper handling with regard to histopathological, cytological, haematological and chemical pathological investigations.
4. Outline the application of pathology in body systems.

Course content:

General Pathology and Tumour Pathology

- Introduction to pathology, Acute inflammation and suppuration, Markers of Inflammation, Chronic inflammation, Chronic granulomatous inflammation – Tuberculosis, Leprosy, Cell response to injury – Necrosis, Apoptosis, Cellular adaptations of growth and differentiation, Cellular accumulations and pathologic calcifications – Amyloidosis, Wound healing, Wound healing in specialized tissue, Thrombosis, Embolism, Ischemia and infarction ,Congestion and oedema, Introduction to neoplasia, Oncogenesis, Spread of tumours, Clinical aspects of tumours, Diagnosis of tumour.

Chemical Pathology

- Interpretation of common laboratory investigations, Specimen collection and transport Histopathology and Cytopathology, Disorders of lipid metabolism, Serum electrolyte abnormalities and fluid balance, Body fluid analysis and markers of inflammation, Acid base abnormalities, Disorders of glucose homeostasis

Introduction of General pathology application of Systems (Cardiorespiratory, Gastrointestinal, Genitourinary, CNS)

- Body fluid analysis, Respiratory system, Gastro-intestinal system, Central nervous system, Liver, and Urinary system.

Handling of specimens

- Specimen collection and transport for haematological investigations, Handling of specimens for biochemical investigation, Specimen collection and transport Histopathology.

Clinical Rotation

Students will be attached to Teaching Hospitals Kuliyapitiya and Kurunegala. The rotation will include: Histopathology, Clinical chemistry, Haematology, Microbiology and Transfusion Medicine during this rotation.

Time Allocation:

Module: Large group teaching (including online teaching) – 27 hours,
Tutorials – 5 hours,
Seminar – 2 hours,
Museum – 6 hours,
Student Presentation – 3 hours

Clinical Rotation: 2 weeks (Morning hours)

Assessment method and Mark allocation:

Module: Continuous assessment – 10% (SEQ / MCQ / VIVA VOCE / OSPE)
End-course assessment - 90% (MCQ / SEQ /OSPE)

Clinical Rotation: Portfolio based summative assessment

Recommended Reading/references:

- Robins Basic Pathology
  Kumar V, Abbas AK and Aster JC, 10th Edition, 2017, Elsevier Health Sciences, Philadelphia, USA.
- Hoffbrand's Essential Haematology
  Hoffbrand VA and Steensma DP, 8th Edition, 2020, Wiley-Blackwell, Hoboken, USA.
- Clinical Chemistry
  Marshall WJ, Lapsley M and Day A, 8th Edition, 2016, Elsevier Science Ltd, Oxford, UK.

Supplementary Reading:

- Robbins and Cotran Pathologic Basis of Disease
  Kumar V, Abbas, AK, Aster JC, 10th Edition, 2020, Elsevier, Philadelphia, United States.
- Lecture Notes on Haematology
  Hatton CSR, Hay D and Keeling DM, 10th Edition, 2017, Wiley-Blackwell, Hoboken, USA.
- Underwood's Pathology: A Clinical Approach
  Cross SS, 7th Edition, 2018, Elsevier, London, UK.
- Muir's Textbook of Pathology
  Herrington CS, 16th Edition, 2020, CRC Press, London, UK.
- Pathology Illustrated
  Reed R, Roberts F and MacDuff E, 8th Edition, 2018, Elsevier Health Sciences, London, UK.
- Haematology for the Medical Student
  Schmaier AH and Petruzzelli LM, 3rd edition, 2003, Lippincott Williams and Wilkins, Philadelphia, USA.
- Kumar and Clark's Clinical Medicine
  Kumar P and Clark ML, 9th Edition, 2016, Elsevier Health Sciences, London, UK.

Course No	: MED2223
Course Title	: Foundation to Pharmacology
Credits	: 3
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable the student to understand the basic principles of clinical pharmacology and therapeutics.

Intended Learning Outcomes

At successful completion of the course of, students should be able to:

1. Describe the basic concepts in pharmacodynamics, pharmacokinetics and their clinical relevance
2. Recognize and explain the basis of adverse medication reactions and medication interactions.
3. Describe the processes and ethical issues involved in pharmaceutical research.
4. Describe the basis of medication therapy in modification of autonomic function
5. Describe the basis of medication therapy in pain control.
6. Describe the basis of medication therapy in neoplastic disease.
7. Describe the basis of medication therapy used in treatment of infections.

Course content:

- Introduction to pharmacology, modes of action of medications at different levels, medication targets, medication-target interaction, and dose response relationship.
- Transport across cell membrane, absorption, routes of administration, distribution in tissues, body compartments and across barriers.
- Biotransformation, elimination, pharmacokinetics parameters and their clinical application, first order and zero order kinetics, and medication concentration-time curves.
- Adverse and toxic effects, medication interactions, pharmacogenetics, special populations, measurement and monitoring medication therapy, medications acting on the autonomic nervous system, analgesics, medication therapy in neoplastic disease, medication sources, reliability and interpretation, medication discovery and development.

- Introduction to Antimicrobials, Classification, mode of action, spectrum of activity, pharmacokinetics and adverse effects.
- Limitations of antimicrobial therapy, Antibiotic resistance, Antiviral medications, Antifungal medications, Antimalarial and anthelminthic medications

Time Allocation:
Large group teaching (including online teaching) – 34 hours,
Small Group Discussion –11 hours

Assessment method and Mark allocation:
Continuous assessment 10% (SEQ / MCQ / VIVA VOCE / OSPE)
End-course assessment 90% (MCQ / SEQ)

Recommended Reading/references

Recommended textbooks

- Rang and Dale's Pharmacology
  Rang HP, Date MM, Ritter JM, Flower RJ and Henderson G, 9th Edition, 2019, Elsevier Churchill Livingstone, London.
- Clinical Pharmacology
  Bennett PN, Brown MJ, Sharma P, 12th Edition, 2018, Elsevier Churchill Livingstone, London.

Recommended reading for clinical attachments

- British National Formulary (BNF); Latest edition.
- Australian Prescriber; 2017, NPS MedicineWise, Surry Hills, Australia.
- Sri Lanka Student Formulary (2018) published by the Dept. of Pharmacology, Faculty of Medicine University of Colombo.
- Sri Lankan Prescriber; Latest edition, State Pharmaceuticals Corporation.
- Clinical toxicology; Latest edition, National poison information centre, Colombo.
- Goodman And Gilman's The Pharmacological Basis of Therapeutics.
- Katzung BG and Trevor J, 13th Edition, 2017, OH, USA.
- Foundations of Pharmacology for students of Medicine and Allied Health Sciences; Jayakody RL, 2009, Faculty of Medicine, University of Colombo, Colombo.

Course No	: MED2233
Course Title	: Infection Module 1
Credits	: 3
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable the students to comprehend the characteristic features of microbes, source, transmission and pathogenesis of microorganisms that are responsible for infections, principles of diagnosis, management and prevention
- To enable the students to learn about the parasites as disease causing agents, their prevalence and geographical distribution, basic morphology, life cycle, modes of transmission, vectors, pathogenesis and clinical symptoms of the diseases, collection of specimens and diagnosis of the parasitic diseases, basic management steps of the patients, anti-parasitic medications that can be used effectively in treatment, prevention, control/elimination and how to prevent re-emergence of already eliminated parasitic diseases.

Intended Learning Outcomes

At successful completion of the module, students should be able to

1. Describe the pathogenic microorganisms that are commonly encountered (viruses, bacteria, fungi and parasites) their habitats, routes of transmission, pathogenesis of infections,
2. Describe the common clinical signs, symptoms and laboratory parameters that indicates the presence of an infection.
3. Describe principles of specimen collection and laboratory diagnosis of microbial infections
4. Identify antiseptics, disinfectants and sterilizing agents appropriate for use in different healthcare settings.
5. Demonstrate skills and knowledge required for diagnosis and treatment of the parasitic diseases commonly found in Sri Lanka
6. Discuss the preventive measures used in the control of microbial and parasitic diseases.
7. Describe medically important parasitic diseases in the world and possibility of these occurring in Sri Lanka.
8. Appreciate the economic loss in a country which could be brought about by widespread microbial and parasitic diseases.
9. Demonstrate adequate knowledge on microbial and parasitic infections in the immunocompromised patient.

Course content in Microbiology

- Introduction to microbiology (including classification of microbes, pathogenesis of infectious diseases, host parasite relationship and normal flora of the body), Classification of pathogenic and opportunistic bacteria, viruses and fungi causing disease in humans, Introduction to microorganisms that cause infections of the

different body systems, basics of laboratory diagnosis, treatment and prevention of such infections, sterilization and disinfection.

- Organisms causing infections of the upper respiratory tract, lower respiratory tract, central nervous system, urinary tract, genital tract, skin and soft tissue sexually transmitted infections, abdominal and hepatobiliary infections.
- Organisms causing fever, fever and rash, anaerobic infections, latent infections, toxin mediated infections and diarrhoea.

Course content in Parasitology

- Introduction to medical parasitology
- Intestinal and genitourinary protozoa, small intestinal nematodes, large intestinal nematodes, tissue nematodes, visceral and cutaneous larva migrans, intestinal protozoans and blood protozoa.
- Microbiology and parasitology laboratory practicals

Time Allocation:

Large group teaching (including online teaching) – 35 hours,
Small Group Discussion (Case/Scenario based)/ Tutorials– 10 hours
Practical –5 hours,
Student Presentation- 4 hours

Clinical Rotation: 2 weeks (Morning hours) – combined with Pathology and Transfusion Medicine

Assessment method and Mark allocation:

Continuous assessment (CA)– 10% (SEQ / MCQ / VIVA VOCE / OSPE)
End-course assessment - 90% (MCQ / SEQ / OSPE /Practical)
(70 % Microbiology and 30% Parasitology)

Recommended Reading / references

Recommended textbooks

Microbiology

- Medical Microbiology and Infection at a Glance; Gillespie S and Bamford K, 4th Edition, 2012, John Wileys & Sons, New York, USA
- Notes on Medical Microbiology; Ward KN, McCatney AC and Thakkar B, 2nd Edition, 2009, Churchill Livingstone, New York.
- Lippincotts Illustrated Reviews- Microbiology. Richard Harvey, Pamela Champe, Bruce Fisher, Lippincott Williams & Wilkins; 3rd edition (October 12, 2012)

Parasitology

- Manson's Tropical Diseases
  Farrar J, Hotez PJ, Junghanss T, Kang G, Lalloo D, and White N, 23rd Edition, 2014, Saunders Elsevier, London, UK.
- Peter's Atlas of Tropical Medicine and Prasitology
  Nabarro L, Jones SM and Moore D, 7th Edition, 2019, Elsevier Health Sciences, London, UK.
- Medical Parasitology, Arora DR and Arora BB, 5th Edition, 2018, CBS Publishers & Distributors, India.

Course No	: MED2243
Course Title	: Blood and Immune system module 2
Credits	: 3
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable students to understand the pathogenesis of common haematological conditions and to initiate investigations and management of common haematological conditions including life-threatening emergencies.
- To enable students to identify important immunologically mediated diseases, and to rationally use basic tests to assess the immune system and to understand the pathophysiology to treat common immunological disorders including life-threatening emergencies.

Intended Learning Outcomes

At successful completion of the module, students should be able to

1. Describe the haematological changes in physiological states
2. Describe the pathophysiology, rationale behind basic investigations and management principles of common haematological conditions
3. Describe the pathophysiology, rationale behind laboratory investigations and management principles of important immunologically mediated disease.
4. Describe the initial management of life threatening haematological and immunological conditions.
5. Describe the rationale behind immunization, immunotherapy, and transplantation

Course content:

Pathophysiology

- Haematopoiesis and classification of haematological diseases, Mechanism of Anaemia, Types of anaemias, Disorders of Haemoglobin, Benign Disorders of White Cells and Platelets, Haematological Malignancies (Leukaemia and Lymphomas), Myeloproliferative Diseases, Myelodysplastic Syndrome, Cytopenia and Aplastic Anaemia, Para-proteinaemia and Multiple Myeloma, Bleeding and Thrombophilic Disorders, Blood Transfusion and Adverse Effects

Immunology

- Introduction to immunology, Innate and acquired immunity, non-specific and specific immunity, cells and tissues of the immune system , immunity to infections, complement systems, immunological basis of vaccination and immunotherapy, hypersensitivity including anaphylaxis , immunotolerance and autoimmunity, , immunodeficiency, immunotherapy, transplantation and Immunological methods of diagnosis.

Therapeutics

- Medications affecting haemopoietic system.

Clinical Applications

- Management of Haematological Conditions, Haematological conditions in Pregnancy, Thalassemia, Surgical Aspects in Haematology (Splenectomy), Rh Isoimmunization and Haemolytic disease of new-born, Haematological Problems in Childhood.

Time Allocation:

Large group teaching (including online teaching) – 24hours
Small Group Discussions – 10 hours,
Tutorials-4 hours
Practical – 2hours,
Student seminar – 2 hours

Assessment method and Mark allocation:

Continuous assessment – 10% (SEQ / MCQ / VIVA VOCE / OSPE)
End-course assessment - 90% (MCQ / SEQ / OSPE)

Recommended Reading/references:

- Hoffbrand's Essential Haematology; Hoffbrand VA and Steensma DP, 8th Edition, 2020, Wiley-Blackwell, Hoboken.
- Cellular and Molecular Immunology; Abbas AK, Lichtman AH and Pillai S, 9th Edition, 2017, Elsevier - Health Sciences Division, Philadelphia, USA.
- Robins Basic Pathology
  Kumar V, Abbas AK and Aster JC, 10th Edition, 2017, Elsevier Health Sciences, Philadelphia, USA

Supplementary Reading:

- Lecture Notes on Haematology
  Hatton CSR, Hay D and Keeling DM, 10th Edition, 2017, Wiley-Blackwell, Hoboken, USA.
- Janeway's Immunobiology
  Murphy K and Weaver C, 9th Edition, 2016, WW Norton & Co, USA.
- Color Atlas of Clinical Hematology : Molecular and Cellular Basis of Disease
  Hoffbrand AV, Vyas P, Campo E, Haferlach T and Gomez K, 5th Edition, 2019, Wiley-Blackwell, Hoboken, USA.
- Essential Paediatrics
  Hull D and Johnston DI, 4th Edition, 1999, Churchill Livingstone, London, UK.
- Guyton and Hall Textbook of Medical Physiology
  Hall JE and Hall ME, 14th Edition, 2020, Elsevier Science Health Science, Philadelphia, USA.
- Bailey and Love's Short Practice of Surgery
  Williams NS, O'Connell PR and McCaskie A, 27th Edition, 2018, Taylor & Francis Ltd, London, UK.
- Obstetrics by Ten Teachers
  Kenny LC, Bickerstaff H and Myers JE, 20th Edition, 2017, Taylor & Francis Ltd, Portland, USA.
- Kumar and Clark's Clinical Medicine
  Kumar P and Clark ML, 9th Edition, 2016, Elsevier Health Sciences, London, UK

Course No	: MED2252
Course Title	: Community Medicine 1
Credits	: 2
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS Examination

Aim/s:

- To introduce the basic concepts of biostatistics and epidemiology and their relevance to public health, curative practice and research
- To provide hands on experience in the use of biostatistics and epidemiology in conducting research

Intended Learning Outcomes

At successful completion of the module, students should be able to:

1. Describe the statistical concepts of handling different types of data, graphical methods, sampling, measurements and the use of statistical software
2. Describe distributions of data, hypothesis testing, estimates, sampling size and sampling error calculation
3. Describe major demographic indicators such as morbidity and mortality and other epidemiological parameters and the use of different epidemiological studies in determining disease burden, identifying risk factors and assessing impact of prevention methods
4. Describe the application of epidemiology in screening programmes, investigation and control of a communicable disease outbreak, control of non-communicable diseases, identifying risk factors and inferring causal effect.

Course Content:

Introduction to community medicine

Biostatistics

Introduction to statistical analytical software, Measurements and types of data, Descriptive Statistics, Probability, Normal distribution, skewed distribution, Sampling, Estimation, confidence interval, p-values, hypothesis testing

Significance tests and errors, Introduction to statistical models

Epidemiology

Introduction to epidemiology, Measures of morbidity and mortality, Overview of study designs and cross-sectional studies, Analytical studies and measures of exposure effects, Bias in epidemiological studies, Causal Inference, Investigation and control of an outbreak, Assessment of screening and diagnostic tests, Screening programs

Time Allocation

Large group teaching (including online teaching)– 20 hours

Small Group Discussions- 6 hours

Tutorials- 4 hours

Assessment method and Mark allocation:

Continuous assessment – 10% (SEQ / MCQ / VIVA VOCE / OSPE)

End-course assessment - 90% (MCQ / SEQ)

Recommended Reading/references

- Park's Textbook of Preventive and Social Medicine
  Park K, 25th Edition, 2017, Banarsidas Bhanot Publishers, India.
- Sri Lanka Paradigm Shift in Population
  De Silva WI, 2015, National Centre for Advanced Studies in Humanities and Social Sciences, Colombo.
- Occupational Health: a handbook for doctors by University of Colombo, Sri Lanka.
- Oxford Textbook of Global Public Health
  Detels R, Gulliford M, Karim QA and Tan CC, 6th Revised edition, 2015, Oxford University Press, Oxford, UK.

Recommended Websites

- Annual Health Bulletins, Ministry of Health, Colombo.
  http://www.health.gov.lk/moh_final/english/others.php?pid=110
- Health and Safety Executive, UK website - www.hse.gov.uk.

Supplementary Reading:

- Introduction to Medical Statistics. Martin Bland, 4th Edition, 2019, Oxford University Press, UK
- Epidemiology: an introduction. Kenneth J. Rothman, 2nd Edition, 2012, Oxford University Press, New York
- Epidemiology. Leon Gordis, 5th Edition, 2014, Saunders Elsevier, Philadelphia
- Sivagnanasundaram, C. 2003. Learning Research: A Guide to Medical Students, Junior Doctors, and related Professionals, 2 nd Ed. Jaffna, Sri Lanka:

Course No	: MED3112
Course Title	: Community Medicine 2
Credits	: 2
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS Examination

Aim/s:

- To introduce principles of demography, primary health care and health promotion
- To introduce to environmental and occupational health and to the concepts of prevention of environmental and occupational health hazards
- To introduce research methodology and to prepare the students to the research project conducted in Community Medicine Module 3

Intended Learning Outcomes

At successful completion of the course, students should be able to:

1. Describe the demographic profile, major demographic indicators and its transition in Sri Lanka
2. Calculate and interpret demographic indicators
3. Discuss the relevance of primary health care
4. Discuss the principles of health promotion
5. Discuss environmental issues and their prevention at national and global level
6. Outline common occupational health hazards and the need for occupational safety and environmental regulations for a given research question
7. Identify a researchable topic, develop the research question, select an appropriate study design, identify the correct sample and the sampling technique, select data collection instruments and describe the method of conducting the study
8. Conduct a review of the literature and identify ethical issues related to research involving human subjects
9. Develop a detailed research project proposal and submit for obtaining ethical clearance

Course content:

- **Demography**
  Introduction to Demography, Fertility Trends and Indicators, Mortality Trends and Indicators and concept of standardization, Demographic transition, Quality of Life Indicators and concepts of life tables
- **Health care delivery**
  Principals of primary Health Care, Health Care System in Sri Lanka, Universal Health Coverage and Financing Health Care
- **Health promotion**
  Principles of Health Promotion, Health Promotion Programs and Activities in SL
- **Environmental health**
  Introduction to Environment Health and Urbanization, Health Implications of Pollution, Legislations in Relation to Environmental Health and the role of the Central Environment Agency
- **Occupational health**

Introduction to occupational health and occupational hazards, Role of a doctor in occupational health, Legislations for Occupational Health and Functions of Occupational Safety Division of Ministry of Labour

- **Research methodology**
  Identifying a research topic, Review of literature and using bibliographic software, Calculation of sample size, Ethical aspects of medical research, Preparation of a research protocol

Time Allocation

Large group teaching (including online teaching)– 27 hours
Small Group Discussions/Tutorial – 9 hours

Assessment method and Mark allocation:

Continuous assessment – 10% (SEQ / MCQ / VIVA VOCE / OSPE)
End-course assessment - 90% (MCQ / SEQ)

Recommended Reading/references

- Introduction to medical statistics
  Bland M, 4th Edition, 2016, Oxford University Press, Oxford, UK.
- Gordis Epidemiology
  Celentano DD and Szklo M, 6th Edition, 2019, Elsevier Health Sciences, Philadelphia, USA.
- Reseaech Methods in Community Medicine
  Abramson JH and Abramson ZH, 6th Edition, 2008, John Wiley & Sons Inc, New York, USA.

Course No	: MED3123
Course Title	: Cardiovascular System 2
Credits	: 3
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable the students to apply the knowledge in basic general pathology concepts and enable them to achieve the competencies to apply such knowledge to understand the clinical features, diagnosis and treatment of diseases of the cardiovascular diseases.
- To enable students to outline management plans, management of complications of common cardiovascular diseases.
- To enable students to understand mechanism of action, distribution, excretion, side effects and cost of medications prescribed for cardiovascular diseases.

Intended Learning Outcomes

At successful completion of the module students should be able to

1. Recall the knowledge on normal structure and function of the cardiovascular system.
2. Describe the causative factors, mechanisms, gross and microscopic changes and complications of cardiovascular diseases.
3. List investigations useful in the study of common cardiovascular diseases and discuss the suitability in focus of scientific basis, accuracy, safety and risk, cost and availability
4. Interpret investigation results in view of the clinical picture and normal values.
5. Outline management plans for common cardiovascular diseases and the management of complications
6. Discuss the preventive measures on the basis of causative factors and mechanisms of cardiovascular diseases
7. Describe the mechanism of action, distribution, excretion, side effects and cost of medications prescribed for cardiovascular diseases.

Course content:

Pathophysiology/ Pathogenesis

- Atherosclerosis, Hypertension, Aneurysms of Blood Vessels, Vasculitis, Peripheral Vascular Disease, Arterio-Venous Fistulae, Venous Thrombosis and Varicose Veins, Ischemic Heart Disease, Cardiac Dysrhythmias, Infective Endocarditis, Myocarditis and Pericarditis, Rheumatic Heart Disease, Valvular Heart Disease, Cardiac Tamponade, Cardiomyopathies, Cardiac Failure, Lymphoedema.

Therapeutics

- Vasodilator and antianginal agents, Sympathomimetic and para-sympathomimetic, Antihypertensives, Cardiac glycosides, Antiarrhythmic medications, Lipid lowering medications, Diuretics, Calcium channel blockers, Antiplatelet medications,

Anticoagulant medications, Thrombolytic medications, Antifibrinolytic medications.

Clinical Application

- Non-invasive, invasive, biochemical and therapeutic procedures in cardiovascular disease.
- Atherosclerosis, Hypertension, Aneurysms of Blood Vessels, Vasculitis, Peripheral Vascular Disease, Arterio-Venous Fistulae, Venous Thrombosis and Varicose Veins, Ischemic Heart Disease, Cardiac Arrhythmias, Infective Endocarditis, Myocarditis and Pericarditis, Rheumatic Heart Disease, Valvular Heart Disease, Cardiomyopathies, Cardiac Failure, Lymphoedema

Time Allocation:

Large group teaching (including online Teaching)– 27 hours
Tutorials/Small Group Discussion –8 hours
Seminar – 4 hours
Museum – 2 hours

Assessment method and Mark allocation:

Continuous assessment – 10% (SEQ / MCQ / VIVA VOCE / OSPE)
End-course assessment - 90% (MCQ / SEQ/ OSPE / OSCE)

Recommended Reading/references:

Basic and applied sciences

- Robins Basic Pathology
  Kumar V, Abbas AK and Aster JC, 10th Edition, 2017, Elsevier Health Sciences, Philadelphia, USA.
- Clinical Pharmacology
  Brown MJ, Sharma P, Mir FA and Bennett PN, 12th Edition, 2018, Elsevier Health Sciences, London, UK.
- Kumar and Clark's Clinical Medicine
  Kumar P and Clark ML, 9th Edition, 2016, Elsevier Health Sciences, London, UK.

Course No	: MED3132
Course Title	: Respiratory system 2
Credits	: 2
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable the students to understand causes, pathophysiology, presentation and prognosis of the common respiratory diseases
- To enable the students to relate symptoms and signs to the pathophysiology of the respiratory diseases and arrive at a reasonable clinical diagnosis based on the symptoms and signs
- To enable students to choose appropriate investigations in relate to respiratory disorders and to interpret them accordingly.
- To enable students to outline principles of non-pharmacological and pharmacological management of respiratory disorders and principles of prevention and control

Intended Learning Outcomes

At successful completion of the module, students should be able to

1. Recall structure and function of respiratory system
2. List the common respiratory diseases
3. Describe the causes, pathophysiology, presentation and prognosis of the common respiratory diseases
4. Choose appropriate investigations in relate to respiratory disorders and to interpret them accordingly
5. Discuss the principles of non-pharmacological and pharmacological management of respiratory disorders
6. Describe the impact of occupation and environmental factors on respiratory disorders and outline the principles of prevention and control

Course content in Respiratory system module

Pathophysiology/ Pathogenesis

- Pneumonia and lower Respiratory Tract Infections, Pulmonary tuberculosis, Obstructive Lung Diseases -Emphysema, Chronic bronchitis Bronchiectasis, Restrictive lung diseases, Occupational Lung Diseases, Neoplasia of the lung, mediastinum and pleura, Pleural effusion, Pulmonary oedema, Pulmonary thromboembolism, Haemorrhage and infarction, Pulmonary hypertension

Therapeutics

- Medications and their modes of delivery in Bronchial Asthma and obstructive lung disease, Pharmacological basis of anti TB medications, Medications Used in Pulmonary Fibrosis.

Clinical Application

- Bronchial Asthma and Chronic Obstructive Pulmonary Diseases, Respiratory

Failure, Interstitial lung disease, Tuberculosis, Pneumonia and Lung Abscess, Carcinoma of bronchus, Asphyxia deaths, Respiratory distress in new born, Regional Injuries (Thoracic Injuries), Emergency therapeutic procedures and other respiratory procedures, Imaging of pulmonary nodules and cavities**,** Imaging of pulmonary and extra pulmonary tuberculosis**,** Applications of CT scan in common respiratory conditions.

Time Allocation:

Large group teaching (including online Teaching)– 23 hours.
Tutorials/Small Group Discussions – 6 hours,
Seminar – 3 hours.

Assessment method and Mark allocation:

Continuous assessment – 10% (SEQ / MCQ / VIVA VOCE / OSPE)
End-course assessment - 90% (MCQ /SEQ /OSPE /OSCE)

Recommended Reading / references

Recommended textbooks

- Robins Basic Pathology
  Kumar V, Abbas AK and Aster JC, 10th Edition, 2017, Elsevier Health Sciences, Philadelphia, USA.
- Clinical Pharmacology
  Brown MJ, Sharma P, Mir FA and Bennett PN, 12th Edition, 2018, Elsevier Health Sciences, London, UK.
- Kumar and Clark's Clinical Medicine
  Kumar P and Clark ML, 9th Edition, 2016, Elsevier Health Sciences, London, UK.

Course No	: MED3143
Course Title	: Gastrointestinal and Hepatobiliary System 2
Credits	: 3
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable the students to apply the knowledge in basic general pathology concepts and enable them to achieve the competencies to apply such knowledge to understand the clinical features, diagnosis and treatment of diseases of the gastrointestinal and hepatobiliary system.
- To enable the students to evaluate the value of investigations in focus of diseases and disorders of gastrointestinal and hepatobiliary system
- To enable students to outline the principles of non-pharmacological and pharmacological management of common gastrointestinal and hepatobiliary disorders and diseases.

Intended Learning Outcomes

At successful completion of the module, students should be able to

1. Apply the knowledge gained in the pre-clinical phase to analyses the aetiology, abnormal structure, pathophysiology and abnormal biochemistry in relation to clinical features (symptoms and signs) affecting the Gastrointestinal and hepatobiliary system.
2. Describe the pathophysiological basis of common diseases of gastrointestinal and hepatobiliary system.
3. Outline the investigations and interpret their results in evaluating common diseases of gastrointestinal and hepatobiliary system.
4. Outline the principles of non-pharmacological and pharmacological management of common Gastrointestinal and hepatobiliary disorders and disease including their basis of action, side effects and contraindications
5. Evaluate the indications, contraindications and preparation of the patient for the major Gastrointestinal and hepatobiliary diagnostic and therapeutic procedures and their complications
6. Describe the epidemiology and principles of prevention of common Gastrointestinal and hepatobiliary disorders prevalent in Sri Lanka.

Course content:

Pathogenesis/ Pathophysiology

- Introduction to GI pathology, Diseases of Oesophagus, Diseases of Stomach, Diseases of Small Intestine, Diseases of Large Intestine, GIT motility, Functional Colorectal Problems, Anal and Perianal diseases, Neoplasms of the GIT,
- Introduction to Liver Pathology, Jaundice - Clinicopathological correlations, Liver disease due to inborn errors of metabolism, Hepatitis, Cirrhosis, Liver tumours, Diseases of the gall bladder and biliary tree, Pancreatitis, Pancreatic tumours.

Therapeutics

- Medications acting on Gastrointestinal Disorders

Clinical Application

- Introduction to liver disease, Investigations and Interpretation of results in of Liver diseases, Hepatitis, Cirrhosis, Complications of Cirrhosis, Liver tumours, Carcinoma of Pancreas and biliary system
- Surgical problems of salivary glands, GIT motility, Carcinoma of oesophagus &, stomach, Small bowel surgical conditions, Disease of appendix, Inflammatory bowel disease, Functional Colorectal Problems, Neoplasms of the colon, Colorectal Carcinoma, Acute and chronic Diarrheal diseases, Malabsorption, constipation, PR bleeding Anal and Perianal diseases, Perianal sepsis,
- Intestinal Obstruction in Children, Gastrointestinal Disorders of the New-born,
- Imaging of GI diseases, Imaging of Acute Abdomen, Imaging of inflammatory and neoplastic bowel diseases, Imaging in Hepatobiliary disease and Pancreatic Pathology, Nuclear Imaging in GIT bleeding and Hepatobiliary disorders

Time Allocation:

Large group teaching (including online teaching)– 26 hours.
Small Group Discussion – 10 hours
Tutorials – 6 hours
Seminar- 3 hours

Assessment method and Mark allocation:

Continuous assessment – 10% (SEQ / MCQ / VIVA VOCE / OSPE)
End-course assessment - 90% (MCQ / SEQ / OSPE /OSCE)

Recommended Reading / references

Recommended textbooks

- Robins Basic Pathology
- Kumar V, Abbas AK and Aster JC, 10th Edition, 2017, Elsevier Health Sciences, Philadelphia, USA.
- Kumar and Clark's Clinical Medicine
- Kumar P and Clark ML, 9th Edition, 2016, Elsevier Health Sciences, London, UK.
- Bailey and Love's Short Practice of Surgery
- Williams NS, O'Connell PR and McCaskie A, 27th Edition, 2018, Taylor & Francis Ltd, London, UK.
- Medical Microbiology
- Greenwood D, Slack RB, Barer M and Irving W, 18th Edition, 2012, Churchill Livingstone, London.
- Clinical Pharmacology
- Brown MJ, Sharma P, Mir FA and Bennett PN, 12th Edition, 2018, Elsevier Health Sciences, London, UK.
- Essential Paediatrics
- Hull D and Johnston DI, 4th Edition, 1999, Churchill Livingstone, London, UK.
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Course No	: MED3153
Course Title	: Infection Module 2
Credits	: 3
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable the students to understand the basis, diagnosis and treatment of infections of the human body caused by microorganisms and their prevention
- To enable the students to understand diseases caused by parasites such as tissue protozoa, cestodes, trematodes, arthropods, and schistosomes.
- To enable students to understand about venomous snakes in Sri Lanka, their identification and management of snakebites

Intended Learning Outcomes

At successful completion of the module, students should be able to

1. Outline the collection and transport of specimens for microbiological investigations.
2. Explain the pathogenesis and microbiological diagnosis of infections of the systems including selection of appropriate laboratory tests.
3. Explain measures that can be taken for the prevention and control of such infections including immunization.
4. Discuss the importance of infection control in health care environment and identify methods that can be used to control and prevent healthcare associated infections.
5. Demonstrate thorough knowledge and skills to diagnose and treat the parasitic diseases commonly found in Sri Lanka, with special reference to tissue protozoa, cestodes, trematodes, foodborne trematodes and schistosomes
6. Discuss the preventive measures of the above-mentioned diseases.
7. Describe medically important arthropods with special reference to diseases found in locally and globally.
8. Identify venomous snakes found in Sri Lanka and the clinical manifestations of envenomation, and the management of such patients. Recognize common non-venomous snakes found in Sri Lanka especially the ones which mimic the venomous snakes

Course content in Microbiology

- Collection and transport of specimens for microbiological diagnosis, pathogenesis, antibiotic management, antibiotic stewardship, laboratory diagnosis & interpretation of laboratory reports.
- Upper and lower respiratory tract infections, Central Nervous System infections, Urinary Tract infections, STD and genital infections, Gastrointestinal tract and Abdominal infections, Infective endocarditis, PUO and sepsis, Skin and soft tissue Infections, Latent infections, neonatal and perinatal infections including congenital infections, Toxin-mediated Infections, Healthcare associated infections and its prevention, Immunotherapy and vaccination

Course content in Parasitology

- Tissue protozoa (Agents of cutaneous leishmaniasis, visceral leishmaniasis and muco-cutaneous leishmaniasis, *Trypanosoma brucei species* complex, *Trypanosoma cruzi, Toxoplasma gondii, Acanthamoeba species, Naegleria fowleri*),
- Cestodes (*Taenia solium, Taenia saginata, Hymenolepis diminuta, Hymenolepis nana, Bertiella studeri, Dipylidium caninum, Diphyllobothrium latum, Echinococcus granulosus, Cysticercus cellulosae*),
- Foodborne trematodes (*Fasciola hepatica, Fasciolopsis buski, Clonorchis sinensis, Opisthorchis viverrini, Paragonimus westermani*),
- Schistosomes (*Schistosoma mansoni, S.haematobium, S.japonicum*), Parasitic arthropods (*Sarcoptes scabiei, Pediculus humanus var capitis, Pediculus humanus var corporis, Pthirus pubis, Myiasis, Demodex folliculorum, Dermatophagoides*),
- scorpions, centipedes, wasps, bees and vectors such as mosquitoes, sand flies, ticks, fleas etc, Snakes in Sri Lanka, snake bites and principles of management

Time Allocation:

Large group teaching (including online teaching) – 23 hours.
Small Group Discussion – 10 hours
Tutorials – 4 hours
Practical – 5 hours
Student presentations – 2 hours

Assessment method and Mark allocation:

Continuous Assessment – 10% (SEQ / MCQ / VIVA VOCE / OSPE)
End-course assessment - 90% (SEQ / MCQ / OSPE / Practical)
(70 % Microbiology and 30% Parasitology)

Recommended Reading / references

Recommended textbooks

Microbiology

- Infectious Diseases by by Jonathen Chen & William Powderly, Steven Opal, $th Edition, Elsevier
- Lecrure Notes on Infectious Diseases, B. K. Mandal, E. G. L. Wilkins, E. M. Dunbar, Richard M White, Wiley
- The Infections Chapter in the Kumar and Clark's Clinical Medicine
  Kumar P and Clark ML, 9th Edition, 2016, Elsevier Health Sciences, London
- Antimicrobial Stewardship - Edited by Matthew Laundy, Mark Gilchrist, and Laura Whitney. Oxford University Press.

Parasitology

- Manson's Tropical Diseases
  Farrar J, Hotez PJ, Junghanss T, Kang G, Lalloo D, and White N, 23rd Edition, 2014, Saunders Elsevier, London, UK.
- Peter's Atlas of Tropical Medicine and Prasitology
  Nabarro L, Jones SM and Moore D, 7th Edition, 2019, Elsevier Health Sciences, London, UK.

Course No	: MED3212
Course Title	: Community Medicine – 3 (Research Project)
Credits	: 2
Core/Optional	: Core
Prerequisites	: Successful completion of Community Medicine 2 module and securing ethical clearance for the research proposal

Aim/s:

- To instil the importance of research in the field of medicine
- To develop the capacity in conducting research with understanding of scientific research methodology including research publication ad presentation in scientific forums.

Intended Learning Outcomes

At successful completion of the course, students should be able to:

1. Conduct the research using identified tools and the scientific method
2. Analyse data using appropriate statistical method
3. Write a report with scientific presentation of findings, discussion, conclusion and recommendations (under supervision)
4. Write an abstract and presentation in a conference.

Course content:

- Application of knowledge in module 2 to calculate sample size, data collection, data presentation, data analysis,
- Writing a research report, publication and oral and / or poster presentation at conferences

Time Allocation

126 hours (Conducting the research/ Analyzing the data/ Writing the report)

Assessment method and Mark allocation:

End course assessment 100%

(Research Report / VIVA VOCE / Presentation at forum)

Recommended Reading/references

- Research Methods in Community Medicine
  Abramson JH and Abramson ZH, 6th Edition, 2008, John Wiley & Sons Inc, New York, USA.
- Gordis Epidemiology
  Celentano DD and Szklo M, 6th Edition, 2019, Elsevier Health Sciences, Philadelphia, USA.
- Introduction to Medical Statistics
  Bland M, 4th Edition, 2016, Oxford University Press, Oxford, UK.

Supplementary Reading

- Learning Research: A Guide To Medical Student Junior Doctors And Related Professionals
  Sivgnansundram C, 2nd Edition, 2003, Jaffna, Sri Lanka.
- Statistics at Square One
  Swinscow TDV and Campbell MJ, 11th Edition, 2009, BMJ Books/Wiley-Blackwell, Chichester, UK.

Course No	: MED3223
Course Title	: Endocrine system 2
Credits	: 3
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination

Aim/s:

- To enable the students to identify diseases related to specific endocrine organs.
- To enable the students to outline management and management of complications of specific endocrine disorders.
- To enable students to study medications used in specific endocrine disorders.
- To enable students to identify imaging modalities and other investigations in relation to specific endocrine disorders.

Intended Learning Outcomes

At successful completion of module, of the students should be able to:

1. Apply the knowledge gained in the pre-clinical phase to analyses the aetiology, pathophysiology, structural alterations and abnormal biochemistry in relation to clinical features (symptoms and signs) affecting the Endocrine system.
2. Outline specific diseases in relation to different endocrine organs
3. Evaluate the value of investigations (laboratory and radiological tests) in clinical diagnosis and the underlying pathophysiological basis.
4. Outline the principles of non-pharmacological and pharmacological management of common Endocrine disorders.

Course content

Pathology

- Diseases of Adrenal Gland, Investigation of Adrenal Gland Diseases, Pancreatic Islet Cell Diseases, Diseases of Pituitary Gland, Investigation of Diseases of Pituitary, Diseases and Investigation of Parathyroid Gland, Non-neoplastic Diseases of Thyroid, Neoplastic Diseases of Thyroid, Investigation of Thyroid Gland, Complications of Diabetes Mellitus,

Therapeutics

- Glucocorticoid and Mineralocorticoid medications, Thyroxine and Antithyroid Medications, Anti-Diabetic Medications, Immunomodulating medications,

Clinical Correlations

- Introduction to Endocrinology, Management of Adrenal pathologies, Surgical Aspects of Adrenal Gland, Management of Pituitary Problems, Hypo and Hyperparathyroidism, Hypo and Hyperthyroidism, Surgical Aspects of Thyroid Gland, Investigation of Thyroid Gland, Aetiopathogenesis of Diabetes, Diabetic Emergencies, Management of a Diabetic Patient, Gestational Diabetes Mellitus, Common Endocrine Problems in Childhood, Inborn Errors of Metabolism, Obesity and Metabolic syndrome, Imaging in Endocrine Disorders, Nuclear Imaging in Endocrinopathies, Rickets and Disorders of Vit D Metabolism, Short Stature, Precocious Puberty, Subfertility, New-born Screening, Gynaecomastia, Amenorrhea, PCOS

Time Allocation:

Large group teaching (including online teaching)– 22 hours
Small Group Discussions (scenario based) -10 hours
Tutorial – 4 hours
Practical (museum) – 2 hours
Seminar- 2 hours

Assessment method and Mark allocation:

Continuous assessment – 10% (MCQ / SEQ / OSPE / OSCE / VIVA VOCE)
End-course assessment - 90% (MCQ/SEQ/OSPE / OSCE)

Recommended Reading / references

Recommended textbooks

- Robins Basic Pathology
  Kumar V, Abbas AK and Aster JC, 10th Edition, 2017, Elsevier Health Sciences, Philadelphia, USA.
- Kumar and Clark's Clinical Medicine
  Kumar P and Clark ML, 9th Edition, 2016, Elsevier Health Sciences, London, UK.
- Illustrated Textbook of Paediatrics
  Lissauer T and Carrol W, 5th Edition, 2017, Elsevier Health Sciences, Oxford, UK.
- Clinical Pharmacology
  Brown MJ, Sharma P, Mir FA and Bennett PN, 12th Edition, 2018, Elsevier Health Sciences, London, UK.

Course No	: MED3232
Course Title	: Renal and Urinary System 2
Credits	: 2
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable the students to apply the knowledge in basic general pathology concepts and enable them to achieve the competencies to apply such knowledge to understand the clinical features, diagnosis and treatment of diseases of the genitourinary tract.
- To enable the students to develop skills on urinary catheterization and digital rectal examination of prostate.
- To enable students to understand about the effect of systemic diseases on renal and urinary systems.

Intended Learning Outcomes

At successful completion of the module, students should be able to

1. Describe the structure (macroscopic and microscopic) and function (physiological and biochemical) of the renal and urinary systems.
2. Describe the pathophysiological basis of common renal and urological diseases.
3. Describe the macroscopic and microscopic pathology of common renal and urological diseases.
4. Identify symptoms and signs of common renal and urological diseases.
5. Outline the investigations and interpret their results in evaluating common renal and urological diseases.
6. Outline the principles of management of common renal and urological diseases.
7. Describe the pathophysiological basis of complications of chronic renal and urological diseases.
8. Discuss the renal and urological manifestations of systemic diseases.
9. Explain the pharmacological basis of the use of medications in treating common renal and urological diseases.
10. Discuss the precautions to be taken when prescribing in patients with renal and urological diseases.

Course content

Anatomy, Physiology, Biochemistry

- Renal and Urinary System

Pathophysiology/ Pathology

- Proteinuria, Body fluid analysis, Acid base and electrolyte disorders, Acute Kidney Injury, Glomerular disease, Tubulointerstitial disease, Vascular disease of kidney, Urinary tract infection, Chronic kidney disease, Congenital disorders of renal and urinary systems, Neoplasms of renal and urinary systems, Urolithiasis, Systemic diseases affecting the kidney.

Therapeutics

- Nephrotoxic medications and medications to be used with care in renal disease

Clinical Application

- Radiological investigations of renal and urinary systems, Dialysis, renal transplant and post-transplant care, Urinary tract infection, Congenital abnormalities and genetic diseases of renal and urinary system, Impaired renal function, Urinary calculous disease, Urinary tract trauma, Incontinence, Tumours of renal and urinary system, Lower urinary tract symptoms and bladder outlet obstruction

Time Allocation:

Large group teaching (including online teaching)– 24 hours,
Tutorials/Small Group Discussions – 12 hours

Assessment method and Mark allocation:

Continuous assessment – 10% (MCQ/SEQ/OSPE / VIVA VOCE)
End-course assessment - 90%(MCQ/SEQ/OSPE/ OSCE)

Recommended Reading / references

Recommended textbooks

- Robins Basic Pathology
  Kumar V, Abbas AK and Aster JC, 10th Edition, 2017, Elsevier Health Sciences, Philadelphia, USA.
- Clinical Pharmacology - The chapter on kidney and genitourinary tract
  Brown MJ, Sharma p, Mir FA and Bennett PN, 12th Edition, 2018, Elsevier Health Sciences, London, UK.
- Kumar and Clark's Clinical Medicine
  Kumar P and Clark ML, 9th Edition, 2016, Elsevier Health Sciences, London, UK.
- Bailey and Love's Short Practice of Surgery
  Williams NS, O'Connell PR and McCaskie A, 27th Edition, 2018, Taylor & Francis Ltd, London, UK.
- Illustrated Textbook of Paediatrics
  Lissauer T and Carrol W, 5th Edition, 2017, Elsevier Health Sciences, Oxford, UK.

Supplementary Reading

- Clinical Anatomy
  Ellis H and Mahadevan V, 14th Edition, 2018, John Wiley & Sons Inc, Hoboken, USA.
- Guyton and Hall Textbook of Medical Physiology
  Hall JE and Hall ME, 14th Edition, 2020, Elsevier Science Health Science, Philadelphia, USA.
- Clinical Chemistry
  Marshall WJ, Lapsley M and Day A, 8th Edition, 2016, Elsevier Science Ltd, Oxford, UK.
- Pocket guide to Urology and Nephrology

Perera ND and Lonerolle RD, 2006, Published by the department of Urology, National Hospital, Sri Lanka.

Course No	: MED3243
Course Title	: Reproductive system 2
Credits	: 3
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable the students to apply the knowledge in basic general pathology concepts and enable them to achieve the competencies to apply such knowledge to understand the clinical features, diagnosis and treatment of diseases of the male and female reproductive systems and the breast.
- To enable the students to develop skills on specific procedures required by a basic doctor for the practice of Obstetrics and Gynaecology.

Intended Learning Outcomes

At successful completion of the module, students should be able to

1. Recall the normal anatomy and physiology of the reproductive system in the male and the female.
2. Recall the embryology of the reproductive system
3. Discuss the anatomical and physiological characteristics and the events of pre-reproductive, reproductive and post-reproductive periods
4. Describe the pathology of the important and common diseases of male and female reproductive systems.
5. Outline management for important and common diseases of male and female reproductive systems.
6. Describe the pathological aspects, clinical features, basic investigations and outline a management plan with regard to disorders of the breast.
7. Describe the pharmacological basis of the medications acting on male and female reproductive systems.

Course content:

Anatomy and Physiology

- Female reproductive system, Menstrual cycle, Breast, Male reproductive system

Pathology

- Uterine and Cervical pathology (Hyperplasia, Fibroids, Inflammatory lesions(Actinomycosis, Cervicitis, Pyometron, Salpingitis), Tubo-ovarian mass, Vulval lesions, Ectopic), Pathology of male genital tract(Urethritis, epididymo-orchitis, Hydrocoele, Torsion), Pathology of prostate(Prostatitis, Abscess, Malignant tumour), Tumours of genital tract, Breast pathologies(Congenital, Inflammatory, Neoplastic, Infective, Degenerative, Medication-induced, Endocrine, Nipple discharge), Screening tests(Breast and Cervical lesions)

Therapeutics

- Medications acting on Female reproductive system (oestrogen, progesterone, clomiphene citrate, danazole, tamoxifen, HRT), Medications acting on male reproductive system, Anabolic steroids

Clinical Application

- Infections of the female genital tract (Pelvic inflammatory disease), Ovarian tumours, Endometriosis and adenomyosis, Endometrial carcinoma, Carcinoma of cervix, ectopic pregnancy, miscarriage, gestational trophoblastic disease, normal pregnancy, abnormal presentation, Anaemia, Deep vein thrombosis, Diabetes in pregnancy, Hypertension in pregnancy, Heart disease in pregnancy, Fetal growth restriction, Antepartum haemorrhage, postpartum haemorrhage, obstetric emergencies, uterovaginal prolapse, abnormal uterine bleeding, Amenorrhoea-primary and secondary, Diseases of vulva and vagina, Subfertility
- Benign and malignant conditions of prostate, testicular malignancies, penile pathologies

Time Allocation:

Large group teaching (including online teaching) –26 hours
Tutorials/Small Group Discussion – 18 hours
Practical/ museum – 4 hours

Assessment method and Mark allocation:

Continuous assessment – 10% (MCQ/SEQ/OSPE / VIVA VOCE))
End-course assessment - 90% (MCQ/SEQ/OSPE / OSCE)

Recommended Reading/references:

Recommended textbooks

- Obstetrics by Ten Teachers
  Kenny LC, Bickerstaff H and Myers JE, 20th Edition, 2017, Taylor & Francis Ltd, Portland, USA.
- Gynaecology by Ten Teachers
  Kenny LC, Bickerstaff H and Myers JE, 20th Edition, 2017, Taylor & Francis Ltd, Portland, USA.
- Bailey and Love's Short Practice of Surgery
  Williams NS, O'Connell PR and McCaskie A, 27th Edition, 2018, Taylor & Francis Ltd, London, UK.
- Robins Basic Pathology
  Kumar V, Abbas AK and Aster JC, 10th Edition, 2017, Elsevier Health Sciences, Philadelphia, USA.
- Clinical Pharmacology
  Brown MJ, Sharma p, Mir FA and Bennett PN, 12th Edition, 2018, Elsevier Health Sciences, London, UK.

Course No	: MED3252
Course Title	: Forensic Medicine 1
Credits	: 2
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS Examination

Aim/s:

- To introduce students to the ethical and legal aspects of medical practice.
- To introduce students to forensic medicine and mechanical injuries/injury patterns

Intended Learning Outcomes

At successful completion of the module, students should be able to :

1. Evaluate the role of the medical officer in solving crimes.
2. Formulate a code of conduct for doctors in medical practice that would ensure high ethical standards in relationships with patients, families, community, health and other professionals
3. Apply the principles of ethics, rights and law to solve problems that arise during medical practice and research appreciating the standards set by the Sri Lanka Medical Council.
4. Construct a definition for death appreciating the different types of death and conditions simulating death.
5. Interpret changes which occur and are introduced after death while appreciating the medico legal importance of death and its changes.
6. Describe the procedure to be followed in the disposal of a dead body, legally, in cases of deaths under different circumstances.
7. Apply principles of physiology and pathology to determine the response of the body to trauma.
8. Interpret injuries and their consequences which occur as a result of trauma for medico legal purposes.

Course content:

- Introduction to Forensic Medicine- branches, scope and the need, Investigation of crimes, Roles and responsibilities of a doctor in maintaining relationships, Code of conduct for doctors, Medical Ethics - Introduction to basic principles and ethical concepts, Legal system of Sri Lanka with special reference to practice of medicine, Health care rights, Research ethics, Medical malpractice and illegal medical practice, Sri Lanka Medical Council, Death and death related issues, Disposal of a dead body and inquest, Changes after death and estimation of time since death, Post mortem artefacts, Pathology and pathophysiology of trauma, Basic injuries, Injuries by physical and chemical agents, Time of injury, Patterns of injuries, Classification of injuries for legal purposes.

Time Allocation:

Large group teaching – 13 hours
Small Group Discussions – 6
Tutorials – 4 hours
Demonstrations – 2 hours

Assessment method and Mark allocation:

Continuous assessment – 10% (MCQ/SEQ/OSPE/VIVA VOCE) End-course assessment - 90% (MCQ/SEQ/OSPE)
Recommended Reading/references: ● Medical law, ethics, duties and forensic psychiatry Alwis LBL, 1st Edition, 2007 ● Simpson's Forensic Medicine James JP, Jones RM, 14th Edition, 2019, Taylor & Francis Ltd, Portland, USA.

Course No	: MED4113
Course Title	: Neurology Module 2
Credit	: 3
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable the students to understand the pathogenesis of common neurological conditions and to initiate investigations and management.
- To enable the students to identify and manage neurological emergencies.

Intended Learning Outcomes

At successful completion of the module, students should be able to:

1. Describe the epidemiology of common neurological disorders in Sri Lanka.
2. Describe the mechanism of common presenting symptoms of nervous system in relation to structure and function and list the common causes.
3. Describe the pathophysiology, principles of diagnosis, investigations, management and prevention of common neurological and neurosurgical disorders.
4. Identify and describe the early management of neurological and neurosurgical emergencies.
5. Discuss issues related to ethics, social, economic and psychological aspects of chronic or disabling neurological disorders.
6. Describe the pharmacological basis of medications used in treatment of disorders of the nervous system and medications affecting the nervous system.
7. Describe the neurological development of a child.

Course content:

Pathogenesis/ Pathophysiology

- Pathology processes and the effects of such processes on the central and peripheral nervous system, Cerebrovascular diseases(ischaemia, infarction, haemorrhage), CNS Infections and CSF Analysis, Increased intra-cranial pressure, cerebral oedema, Space occupying lesions, Intra-cranial tumours, Effects of common poisons on CNS, CNS diseases, Neurological manifestation of systemic diseases, Pathology of Dementia

Therapeutics

- Principles of medication treatment in common CNS disorders (Epilepsy/ Movement disorders/ Migraine/ Neuromuscular junction disorders/ Anxiolytics/ Antidepressants/ Antipsychotics/ Mood stabilizers/ dementia)

Clinical Application

- Epilepsy, CNS Infections, Neuropathy, Stroke, Headache, Parkinson Disease, Spinal Cord disease, Multiple sclerosis, Management of Head injury, Spinal Cord Compression, Spontaneous intracranial haemorrhage, Traumatic brain injury, Head injury pathophysiology, Brain tumours, Intracranial haemorrhages, Cerebral Palsy, Congenital Anomalies of the Central Nervous System, Epilepsies of Childhood, Floppy Baby, Infections of the Central Nervous system, Seizure Disorders, Hypoxic ischaemic encephalopathy, Imaging in neoplastic and inflammatory disease of CNS, Imaging in stroke and intracranial haemorrhage

Time Allocation:

Large group teaching (including online Teaching)– 27 hours
Tutorials/SGD – 15 hours
Museum – 2 hours

Assessment method and Mark allocation:

Continuous assessment – 10% (MCQ/SEQ/OSPE/VIVA VOCE)
End-course assessment - 90%(MCQ/SEQ/OSPE / OSCE)

Recommended Reading/references:

- Robins Basic Pathology
  Kumar V, Abbas AK and Aster JC, 10th Edition, 2017, Elsevier Health Sciences, Philadelphia, USA.
- Kumar and Clark's Clinical Medicine
  Kumar P and Clark ML, 9th Edition, 2016, Elsevier Health Sciences, London, UK.
- Neurology and Neurosurgery illustrated
  Lindsay KW, Bone I and Fuller G, 5th Edition, 2010, Elsevier Health Sciences, London, UK.
- Bailey and Love's Short Practice of Surgery
  Williams NS, O'Connell PR and McCaskie A, 27th Edition, 2018, Taylor & Francis Ltd, London, UK.
- Illustrated Textbook of Paediatrics
  Lissauer T and Carrol W, 5th Edition, 2017, Elsevier Health Sciences, Oxford, UK.

Supplementary Reading

- Clinical Anatomy
  Ellis H and Mahadevan V, 14th Edition, 2018, John Wiley & Sons Inc, Hoboken, USA.
- Guyton and Hall Textbook of Medical Physiology
  Hall JE and Hall ME, 14th Edition, 2020, Elsevier Science Health Science, Philadelphia, USA.

Course No	: MED4123
Course Title	: Body Tissues and Locomotor System 2
Credits	: 3
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable the students to understand the basis, diagnosis and management of common disorders related to locomotor system.
- To enable the students to identify and treat basic injuries of the locomotor system.
- To enable the students to understand the concept of rehabilitation.

Intended Learning Outcomes

At successful completion of the module students should be able to

1. Describe the anatomy (macroscopic and microscopic) of the locomotor system relating it to the normal functioning.
2. Describe the aetiology, pathology and pathophysiology of common diseases of the locomotor system (muscles, bones and joints).
3. Outline the principles of management of a patient with a disorder of locomotor system.
4. Discuss the principles of prevention and rehabilitation of disorders of the locomotor system.
5. Recognize the genetic aspects of musculoskeletal disorders and the role of genetic testing and genetic counselling.

Course content:

Pathology

- Injury and Repair- Fractures, Metabolic and endocrine and remodelling disorders (Osteoporosis, Osteomalacia/rickets, Paget's disease, hyperparathyroidism), Neoplastic (Primary and Secondary), Atrophy and hypertrophy, Infections

Clinical Application

- Mechanism of dysfunction of muscles, Manifestation as a consequence of systemic, neutral and joint disorders, Management of muscle disorders, Rheumatoid Arthritis, Scleroderma, Systemic Lupus Erythematosus, Seronegative Arthropathies, Osteoarthritis, Gout, Diseases of muscles
- Introduction to Orthopaedics, Initial management of skeletal injuries, Complications of Fractures, Orthopaedic Problems in Children, Bone tumours, Spinal Cord Injuries, Infections of Bones and Joints, Definitive management of skeletal injuries, Management of tendon and nerve injuries, Management of Pelvic injuries, Congenital bone disorders, Introductions to joint disease, Acute monoarthritis, Polyarthritis, Rickets, Imaging in Bone diseases, Imaging in Joint diseases, Imaging of inflammatory, neoplastic disease of bone and arthropathies

Time Allocation:

Large group teaching (including online teaching)– 28 hours.
Tutorials/Small Group Discussions – 10 hours,
Museum /practical – 2 hours.

Assessment method and Mark allocation:

Continuous assessment – 10% (MCQ/SEQ/OSPE / VIVA VOCE)
End-course assessment - 90% (MCQ/SEQ/OSPE/OSCE)

Recommended Reading/references:

Recommended Textbooks

- Robins Basic Pathology
  Kumar V, Abbas AK and Aster JC, 10th Edition, 2017, Elsevier Health Sciences, Philadelphia, USA.
- Bailey and Love's Short Practice of Surgery
  Williams NS, O'Connell PR and McCaskie A, 27th Edition, 2018, Taylor & Francis Ltd, London,UK.
- Kumar and Clark's Clinical Medicine
  Kumar P, and Clark ML, 9th Edition, 2016, Elsevier Health Sciences, London, UK.
- Illustrated Textbook of Paediatrics
  Lissauer T and Carrol W, 5th Edition, 2017, Elsevier Health Sciences, Oxford, UK.
- Adams's Outline of Orthopaedics
  Hamblen DL and Simpson H, 14th Edition, 2009, Elsevier Health Sciences, London, UK.

Supplementary Reading

- Clinical Anatomy
  Ellis H and Mahadevan V, 14th Edition, 2018, John Wiley & Sons Inc, Hoboken, USA.
- ABC of Rheumatology
  Adebajo A and Dunkley L, 5th Edition, 2018, John Wiley & Sons Inc, New York, USA.

Course No	: MED4132
Course Title	: Mental Health Module
Credits	: 2
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS examination.

Aim/s:

- To enable the students to identify concepts, phenomenology and classification in mental illness.
- To enable the students to obtain a proper history and mental state assessment to arrive at a clinical diagnosis
- To enable students to outline the principles of non-pharmacological and pharmacological management of common psychiatric disorders
- To enable student to understand common behavioural disorders of adults and children.

Intended Learning Outcomes

At successful completion of the module students should be able to

1. Outline common affective and psychotic disorders
2. Outline the principles of non-pharmacological and pharmacological management of common Psychiatric disorders.
3. Describe the indications, contraindications, side effects of medications used in treatment of common Psychiatric disorders.
4. Outline the management of common Psychiatric emergencies.
5. Evaluate common behavioural disorders of adults and children.
6. Describe strategies to promote mental health in the community.
7. Discuss ethical issues related to mental illness and care of mentally ill.

Course content

- Introduction
  Concepts, Phenomenology, and classification in mental illness, History taking and assessment
- Common Psychiatric disorders
  Depressive disorder, Schizophrenia and other psychotic disorders, Bipolar affective disorder, Phobia and other anxiety disorders, Delirium, Dementia
- Medications used in treatment of Psychiatric disorders
  Antipsychotics, Medications used in affective disorder, Anxiolytics and psychostimulants
- Other
  Psychiatric and behavioural disorders in Children (Developmental disorders, Emotional disorders in childhood, Behavioural disorders in childhood), Behavioural disorders in Adults (Eating and sleeping disorders, Stress related disorders, Sexual disorders), Community Psychiatry, Legal and ethical aspects in psychiatry, Suicide and deliberate harm, Psychoactive substance use disorder

Time Allocation:

Large group teaching –20 hours

Tutorials/Small Group Discussions – 10 hours

Assessment method and Mark allocation:

Continuous assessment – 10% (MCQ/SEQ / VIVA VOCE)

End-course assessment - 90% (MCQ/SEQ)

Recommended Reading / references

Recommended textbooks

- Psychiatry (Oxford Core Texts)
  Geddes J, Price J and McKnight R, 5th Edition, 2019, Oxford University Press, Oxford, UK.
- Handbook of Clinical Psychiatry: a practical guide.
  Silva V and Hanwella R, 2nd Edition, 2020, Kumaran Book House, Colombo.

Supplementary Reading

- Shorter Oxford Textbook of Psychiatry
  Cowen P, Harrison P, Burns T and Fazel M, 7th Edition, 2018, Oxford University Press, Oxford, UK.
- The ICD11 Classification of Mental and Behavioural Disorder: Clinical descriptions and diagnostic guidelines. Chapter 6 Mental, behavioural, or neurodevelopmental disorders
  World Health Organization, 2019, Geneva.
  https://icd.who.int/en

Course No	: MED4143
Course Title	: Forensic Medicine 2
Credits	: 3
Core/Optional	: Core
Prerequisites	: Completion of course work of Forensic Medicine I

Aim/s:

- To identify and document the effects of trauma for legal purposes while appreciating the broader role of the medical officer at a scene of crime
- To formulate medico-legal reports and presenting these in a court of law
- To identify, document and interpret the effects/causes of natural disease, trauma and toxins for legal purposes while utilizing the appropriate resources, protecting vulnerable groups and ensuring ethical medical practice

Intended Learning Outcomes

At successful completion of the module, students should be able to:

1. Apply principles of physiology and pathology to determine the response of the body to trauma.
2. Interpret injuries and their consequences which occur as a result of trauma for medico legal purposes.
3. Interpret findings which help in the identification of individuals.
4. Justify the importance of maintaining and presenting accurate, legible and complete medico legal records and providing oral evidence to court.
5. Describe the role of the medical officer in conducting scene visits/exhumations, issuing certificates.
6. Interpret injuries and their consequences which occur as a result of toxic substances for medico legal purposes.
7. Apply the principles of ethics to solve problems that arise during medical practice.
8. Interpret injuries and their consequences which occur as a result of trauma for medico legal purposes.
9. Evaluate and determine the groups of people who may need special care and act accordingly and within the legal framework.
10. Evaluate the use of photography, radiology and other investigations used in medico legal practice.
11. Identify evidence which may suggest a sudden natural death.

Course content

- Regional injuries (head, neck, face, teeth, thoracic, abdominal, and spinal cord), Identification for medico legal purposes, Introduction to cause of death, mode of death and circumstances of death, Law of murder and homicide, Court procedure and expert testimony in courts, Testimonial capacity, testamentary capacity, fitness to plead and dying declaration, Scene of crime, The role of a medical officer at a scene of mass disaster, Trace evidence, Research ethics, Asphyxial deaths (smothering, suffocation, choking, gagging, strangulation, hanging, traumatic, postural and sexual asphyxia, drowning), Criminal miscarriage, Torture and deaths in custody, Sexual offenses, Forensic radiology, Forensic photography, Forensic psychiatry, Drunkenness, Transportation injuries, Firearm injuries

and injuries due to explosions, Child abuse and domestic violence, Infanticide and Sudden infant death syndrome, Starvation and neglect, Sudden natural deaths. Forensic Toxicology

Clinical Rotation

- The Students will be attached to the Department of Forensic Medicine at Teaching Hospital Kuliyapitiya/ Kurunegala. During this rotation students will attend to autopsy sessions, attend crime scenes to observe autopsy, and visit Trauma/ Emergency unit or wards to evaluate patients and to complete medico-legal report.

Time Allocation:

Module: Large group teaching – 39 hours
Tutorials – 3 hours
Demonstrations – 3 hours

Clinical Rotation: 2 Weeks (Morning hours)

Assessment method and Mark allocation:

Module: Continuous assessment – 10% (MCQ/SEQ/OSPE / VIVA VOCE)
End-course assessment - 90%(MCQ/SEQ/OSPE)

Clinical Rotation: Portfolio based Formative assessment

Recommended Reading/references

- Simpson's Forensic Medicine
  James JP, Jones RM, 14th Edition, 2019, Taylor & Francis Ltd, Portland, USA.
- Spitz and Fisher's Medicolegal Investigation of Death
  Spitz WU and Diaz FJ, 5th Edition, 2020, Charles C. Thomas Publisher, Springfield, United States.
- Medical Law, Ethics, Duties and Forensic Psychiatry
  Alwis LBL, 1st Edition, 2007.

Supplementary Reading

- Knight's Forensic Pathology
  Saukko PJ, Knight B, 4th Edition, 2015, Taylor & Francis Ltd, London, UK
- Forensic PathologyDiMaio D, DiMaio VJ, 2nd Edition, 2001, Taylor & Francis Inc, Bosa Roca, USA

Course No	: MED4152
Course Title	: Community Medicine 4
Credit	: 2
Core/Optional	: Core
Prerequisites	: Successful completion of Community Medicine 2 module

Aim/s:

- To provide adequate knowledge on maternal and child health in community, adolescent health, family planning, prevention of communicable and non-communicable diseases

Intended Learning Outcomes

At the end of the successful completion of the course, students should be able to:

1. Discuss how maternal health, child health and adolescent health are safeguarded at community level
2. Describe the importance of family planning, available family planning methods and discuss how to select a suitable method for a client
3. Describe the prevention and control of communicable and non-communicable diseases of public health importance

Course content

Antenatal, natal and postnatal care, maternal morbidity, mortality and surveillance, promotion of exclusive breast feeding, supplementary feeding, Family planning at primary health care level,
Infant morbidity and mortality, child and adolescent health, school health program, national programme of immunization, NCD prevention program, promotion of nutrition, Disaster management, Planning, monitoring and evaluation of health programs

Time Allocation:

Large group Lectures – 16 Hours
Tutorials/SGD/seminar – 9 Hours

Assessment method and Mark allocation:

Continuous assessment – 10% (MCQ/SEQ/OSPE)
End-course assessment - 90% (MCQ/SEQ)

Component	Percentage (%)
CA (MCQ/SEQ/OSPE)	10
MCQ	40
SEQ	50
Total	100

Recommended Reading/references

Recommended textbooks

- Park's Textbook of Preventive and Social Medicine
  Park K, 25th Edition, 2020, Banarsidas Bhanot Publishers, India.
- Maternal Care Package, A guide to field health care workers by Family Health Bureau, Ministry of Health, Sri Lanka. - https://medicine.kln.ac.lk/depts/publichealth/Fixed_Learning/clearkship/3.PHM/maternal_care_package_a_guide_to_field_healthcare_workers_english.pdf
- Adolescent Job Aid – WHO, Reference tool for health care workers - https://www.who.int/maternal_child_adolescent/documents/9789241599962/en/
- Family Health Bureau, Annual Report, Latest publication, Sri Lanka. https://fhb.health.gov.lk/index.php/en/resources/annual-report

]Course No	: MED4151
Course Title	: Primary Care and Family Medicine Module
Credit	: 1
Core/Optional	: Core
Prerequisites	: Successful completion of Second MBBS Examination

Aims:

- To provide students the knowledge, skills and attitudes to deliver primary medical care and train them to apply knowledge and skills gathered from other disciplines in patient management in primary care settings.

Intended learning outcomes:

On successful completion of the module, students should be able to:

1. Describe the primary care settings in the country which provide primary medical care.
2. Describe the principles of family medicine and functions of a family physician.
3. Describe the importance of providing patient centred care at primary care.
4. Demonstrate knowledge and skills to take a focus history, carry out a relevant clinical examination, use selective investigations and institute an appropriate management plan after negotiating with the patient to ensure compliance.
5. Analyze psychological, social, behavioural and cultural factors that influence a patient's illness, behaviour and presentation for care
6. Demonstrate skills to differentiate potentially serious diseases from minor problems.
7. Evaluate family dynamics, the individual and family life cycles and factors that have an impact on the family in health and disease
8. Demonstrate ability to plan and institute comprehensive curative and preventive care for common illnesses, non-communicable diseases, psychosocial problems and emergencies in the office, hospital or home.
9. Demonstrate ability to coordinate care through appropriate referral to hospitals, specialists and other health resources.
10. Demonstrate ability to maintain medical records, provide medical certificates and write referral letters, prescriptions and investigation requests.
11. Demonstrate knowledge and skills in care for the elderly and to provide end of life care and bereavement care.
12. Demonstrate an awareness of ethical and legal issues related to primary care.

Course content:

- Introduction to primary care and family medicine, Family dynamics and Family in health and disease, Consultation in family practice and basic communication skills, Health promotion and disease prevention, Medical records, prescription writing, medical certificates, Referral in family practice and writing referral letters, Patient management in a primary care setting – minor/common problems, Patient management in a primary care setting - Chronic diseases, Patient management in a primary care setting Emergencies, Palliative care, Terminal care and bereavement care, Care of elderly and home care, Communication in difficult situation.

Clinical Rotation

- Divisional hospitals, Primary medical care units, Out-patient Department at Teaching Hospital (TH) Kuliyapitiya/ Kurunegala, Preliminary care unit at TH Kuliyapitiya/ Kurunegala, General practice units.

Time allocation:

Module: Large group teaching: 15 hours

Clinical Rotation: 2 Weeks (Morning hours)

Assessment method and Mark allocation:

Module: End-course assessment 100% (MCQ/SEQ/OSPE / OSCE)

Clinical Rotation: Formative – Portfolio based assessment

Recommended reading

- Lecture notes in Family Medicine
  De Silva N, 3rd Edition, 2017, Sarvodaya Vishwalekha, Sri Lanka.
- Essentials of Family Practice
  Perera A and Murtagh J, 2nd Edition, 2017, Sarvodaya Vishwalekha, Sri Lanka.
- Oxford Handbook of General Practice
  Simon C, Everitt H, Dorp FV, Hussain N, Nash E and Peet D, 5th Edition, 2020, Oxford University Press, Oxford, UK.

DETAILED DESCRIPTION OF SURGERY AND RELATED ROTATIONS

The undergraduate surgical training prepares the medical students for internship and to practice the discipline of surgery as a skilful doctor subsequently. This is achieved by both classroom teaching and clinical training in wards, clinics, and operating theatres. Possession of applied knowledge of basic sciences is of paramount importance in successfully learning the subject of surgery. Vertical integration in our curriculum will include the continued input of the departments of anatomy and surgery during your surgical training and assessment.

Surgical training commences in the third semester and runs through the next seven semesters which is conducted in main and short clinical rotations over a period of 34 weeks.

Professorial Course No	: **MED5Clin27**
Course Title	: Surgery
Core/Optional	: Core
Credits	: Pre-professorial- 11, Professorial- 7
Prerequisites	: Pre-Professorial -Completion of 2nd MBBS examination : Professorial - Completion of module-based 3rd MBBS examination and PPD Stream

Aim/s

To provide adequate knowledge, facilitate to achieve clinical skills and communication skills to diagnosis and treat the most common surgical diseases including surgical emergencies in a setting of adequate healthcare safety.

Intended Learning Outcomes

At successful completion of the course of Surgery, students should be able to:

1. Apply basic sciences and surgical knowledge to practice as a clinician.
2. Obtain a comprehensive history, elicit physical signs, and interpret those findings of a surgical patient and come to a reasonable diagnosis/different diagnosis.
3. Request relevant investigations to arrive a diagnosis
4. Formulate a basic management plan.
5. Plan appropriate pre-operative assessment of a surgical patient
6. Apply the knowledge and skills of operative theatre practices, universal precautions, sterilization, and disinfection, assisting a surgery, basic instrument handling in managing surgical patients.
7. Plan appropriate post-operative management that includes monitoring, analgesia, fluid management & subsequent management e.g.: discharge plan, rehabilitation, medical education
8. Understand and manage common Surgical emergencies
9. Understand the principals of management of critically injured patients.
10. Acquire the skills in performing basic surgical procedures such as suturing of wound based on a sound anatomical knowledge.
11. Appreciate the importance and need for the careful, accurate, and speedy decisions in the setting of the surgical ward.

12. Be familiar with the spectrum of surgical care available and critical attitude to assess its risks and benefits.
13. Acquire good communications skills to advice, counsel and explain about the disease condition, management options with possible outcomes in simple lay terms.
14. Emphasize the important ethical, moral, and social issues involved in surgical practice and induce discussion on cost benefit analysis.
15. Understand the role of surgical services to the community with a view to prevention of possible surgical conditions and know ways how surgical patients could be rehabilitated.
16. Demonstrate knowledge and skills to deal with social aspects of patients and families when delivering health care.
17. Understand the role of surgical audit and research to improve the quality of surgical care. Student also should be able to demonstrate skills on information gathering and data handling.
18. Demonstrate commitment and enthusiasm to update knowledge and skills by means of continuous medical education that will improve the quality of the practice.
19. Show abilities to take leadership and be able to work as a team person maintaining good rapport between medical and non-medical health care personals.
20. Explain to the patient, family members and public regarding the awareness of prevention and health promotion in surgical conditions.

Course content:

History of Surgery:
Western and Eastern, including Sri Lanka.

Surgical techniques:
Surgical techniques: Asepsis and surgical safety in operating theatre, Universal Precautions, Surgical procedures (Minor/ major/ Day surgery), Endoscopic and Laparoscopic surgeries, Scrubbing, Assisting at operation theatre, patient preparation, post- surgical care, Pain relief, Venous cut-down, Suturing/ Sclerotherapy/ Haemorrhoid injections/ Plaster casting / Needle aspiration for cytology/ Intercostal tube insertion and management/ Urinary catheterization
Surgical wounds: Classification, Management principles, Wound healing & complications, pressure point care

Abdominal wall and herniae:
Anatomical and pathological concerns, common herniae, management principals, preventative concerns.

Musculoskeletal disorders
Principals of management, applying basic science knowledge, in the management of fractures and dislocations, sports injury-biomechanics, diagnosis of injury to muscle, tendon, ligaments, and bursa; infection of bones and joints, chronic joint disorders, tumours of the musculoskeletal system, hand infections, diabetic foot.
Children's orthopaedics – congenital disorders, disorders of growing skeleton.

Genito-Urinary system

Bladder outflow obstruction, benign prostatic hyperplasia and others; urolithiasis, urinary tract infection, urinary fistulas and diverticula of the bladder; carcinoma of the prostate, uroepithelial tumours and renal malignancies; penile surgical conditions : phimosis, inflammatory condition, penile carcinoma; testicular problems: torsion, acute/chronic epididymo-orchitis, cystic lesions in scrotum: hydrocele, spermatocele, cyst of the cord epididymal cyst, varicocele; tumours of testes; congenital abnormalities of genito-urinary system, trauma to the genito-urinary system.

Vascular diseases

Investigations of vascular conditions, Problem oriented lecture on Acute and chronic limb ischaemia, Chronic ulcers of the limb, Abdominal Aortic Aneurysm and other aneurysms, Varicose Veins and Deep vein thrombosis, Vascular malformations, Vascular trauma, and compartment syndrome

Thorax

Acute Thoracic emergencies in surgical patients-Hydro pneumothorax, cardiac tamponade, superior mediastinal obstruction, Lung tumours, mediastinum-mediastinitis and mediastinal tumour

Gastrointestinal Tract

Oesophagus: Congenital problem of oesophagus& diaphragm, GORD/Hiatus Hernia, Causes of Dysphagia, Achalasia Cardia/ Neurological Lesions of oesophagus, Carcinoma of oesophagus

Stomach and duodenum: Peptic Ulcer Disease, Gastritis, Carcinoma of stomach, Gastric outlet obstruction –in adults and paediatric age group, Acute gastric dilatation, Gastric volvulus

Peritoneal cavity: Peritonitis, Ascites, Abdominal and pelvic abscesses

Small and large intestines: Intestinal Obstruction - Acute, sub-acute & chronic (paediatric and adult), Appendicitis and appendicular tumours, Inflammatory bowel disease (Crohn's disease, Ulcerative colitis, Amoebic colitis, Intestinal tuberculosis), Colorectal malignancy, Diverticular disease, Angiodysplasia,

Ano-Rectal conditions: – Haemorrhoids, rectal prolapse, Anal conditions (painful and painless): Anal fissure, perianal abscess, anal fistula, faecal incontinence, Anal carcinoma, Pilonidal sinus

Stoma: Different types of abdominal stomas and management: Gastrostomy, jejunostomy, ileostomy and colostomy

Hepatobiliary and pancreas: Obstructive Jaundice, Gall bladder: Gall stone and cholecystitis, Acute and Chronic pancreatitis, Carcinoma and endocrine tumours of the pancreas, Splenomegaly, Hypersplenism and splenectomy

Endocrine system: Benign and malignant Thyroid tumours, Thyrotoxicosis, Parathyroid tumours, Adrenal tumours (Pheochromocytoma and MEN syndromes)

Breast

Nipple discharge, Benign breast disease, Breast malignancy, gynecomastia of male

Paediatric Surgery

Tracheo-Oesophageal Fistula, Congenital Pyloric Stenosis, Duodenal atresia, Biliary atresia, Intestinal Obstruction, Hirschsprung's disease, Imperforated Anus, Congenital

diaphragmatic Hernia, Phimosis, Epispadias, Hypospadias, Bladder outlet obstruction in children, Patent processus vaginalis and Congenital hernia

Surgical microbiology

Surgical microbiology-source of surgical infection, Special infection-Clostridia, Mycobacteria, MRSA, Nosocomial infection, Prevention of infection: asepsis, antisepsis, Antibiotic use: Common drugs, selection, resistance, Surgery in Hepatitis and HIV carriers, Blood borne viruses, universal precautions, surgical precautions, immunization, management of sharps injuries.

Anaesthesia

Preoperative Management: preoperative assessment, optimization, premedication and modification of current drug therapy, assessment for surgical fitness, Mobility issues, Postoperative Management: postoperative monitoring, postoperative pain Management, fluid and electrolyte management, nutritional support, rehabilitation (physiotherapy, prosthesis, occupational rehabilitation)

Postoperative Complications: postoperative infections, SIRS, shock, MODS, ARDS, Postoperative respiratory failure, Oxygen therapy and ventilation, Haemorrhage, and blood transfusion

Basic knowledge of organ transplant:

The indications, commonly transplanted organs, Donor assessment, per- and post-operative care, long term care

Emergency /Trauma and Rehabilitation

Epidemiology of trauma in Sri Lanka and abroad, initial assessment of the trauma patient: pre-hospital care, triage, clinical assessment, resuscitation of Poly-trauma victim

Management of traumatic wounds: gunshot, blast, stab, human/animal bites, abdominal, thoracic, and pelvic trauma-blunt and penetrating,

Rehabilitation of trauma victims/ post- major surgical cases

Neurosurgery

Head Injury, Intracranial Haemorrhage / Brain Injury, Intracranial / Spinal tumours

Head and Neck

Ulcers of oral cavity, Neck lumps other than thyroid, Diseases of the salivary glands, scalp – bleeding and lumps

Ophthalmology

Introduction of Ophthalmology: -Anatomy, Physiology and common ophthalmic conditions causing visual loss, A patient with a red eye (this should cover ocular trauma), Systemic disease affecting the eye & ocular Toxicology), Paediatric ophthalmology and ocular motility disorders

Otolaryngology

Diseases of ear, larynx, pharynx and neck; Acute and chronic otitis media and complications, Basic management nasal bleeding, Causes of upper airway obstruction, Tracheostomy and management, Basic principles of management of foreign bodies in

nose, ear and throat, Neoplastic lesion of pharynx and larynx, Surgical management of Sinusitis

Radiology

Preparation of patients for radiological investigations:

Xray-kidney, ureters, bladder (KUB), Intravenous urography (IVU), CT Nephrography, Ultrasound scanning, Contrast and non-contrast CT scanning, Fluoroscopy studies, Barium studies (barium swallow, meal, follow through and Enema) Retrograde urography, etc.

Basic interpretation of radiological investigation and taking guided biopsies.

The place of MRI including functional MRI, isotope studies, PET scans in surgical practice.

Plastic Surgery

Soft tissue trauma, burns, hand surgery, facial surgery

Oro-maxillary facial surgery

Facial surgery, Neck surgery, Trauma, Malignancies

Integument

Benign lumps and miscellaneous surgical conditions. Surgical scars and their impact. Burns and their management. Skin cancers.

Management issues and legal issues

Evidence based surgery, statistics, clinical trials, research, management aspects-audit, clinical governance, medico legal aspects, communication skills: psychological aspects, breaking bad news, interpersonal skills, working in teams, leadership, medical litigation: avoiding management errors, ethics, medical negligence, healthcare safety (patients, self, hospital staff and technicians

Time Allocation

Pre-professorial: (11 Credits) (This clinical training is assessed at Continuous assessments)	**Hours**	**Credits**
Hospital based Pre-professorial Clinical Training During 2nd to 4th years- 30 weeks Morning sessions *4 contact hours per day for 6 days a week over 30 weeks*	720	8
Problem based teaching -learning activities in semester 8 (small group learning/team-based learning/ student presentations/ simulated learning/ reflective practices)	45	3
Para-clinical module-based Vertically Integrated Lectures/tutorials (Credits included in Paraclinical modules)	44	-
Professorial: (Final/5th year) (7 Credits)	Hours	Credits
Hospital based Clinical Training: Professorial *4 hours per day for 6 days a week over 8 weeks, weekend admissions and at least 6 hours per week- night admissions*	300	3

Problem based teaching -learning activities: *2 hours a day for 4 days a week over 8 weeks* (small group learning/team-based learning/ student presentations/ simulated learning/ reflective practices	64	4

Assessment method and Marks allocation:

Component	Duration	%
Continuous assessment Pre-professorial Logbook assessment End-professorial OSCE (10 stations)	 15 mins 30 mins	 10 10
Theory-SEQ Paper	3 hours	20
Common MCQ paper (30 SBA's, 20 MTF's)	2 hours	20
Clinical – Long Case	20 mins	20
Clinical-Short cases	20 mins	20
Total		100

Recommended Reading/references

- Bailey & Love's Short Practice of Surgery by Williams NS, Mc Caskie A, O'Connell PR (eds), 27th edition 2017.
- Browse's Introduction to the Symptoms and Signs of Surgical Disease by Black J, Browse NL, Burnand KG, Thomas WEG, 4th edition.
- Clinical Surgery made easy: A companion to Problem-Based Learning, 1st Edition, 2008, Mohan De Silva
- Hamilton Bailey's Physical Signs-Demonstrations of Physical Signs in Clinical Surgery, 19th Edition 2016 John S.P Lumley, Anil K. D'Cruz, Jamal J. Hoballah, Carol E.H. Scott-Connor
- Ward Procedures in Surgery By Professor Aloka Pathirana.

DETAILED DESCRIPTION OF OBSTETRICS & GYNAECOLOGY ROTATIONS

The student is exposed to this important field of study from the stage of basic sciences. A passive method of teaching Obstetrics and Gynaecology is outdated, and it is accepted that the teaching should be student centred. This practice requires adherence to basics and rules with an intense training in ward, clinic, labour room and theatre. The training is delivered at three stages of hospital practice.

Professorial Course No	: **MED5Clin37**
Course Title	**:** Obstetrics & Gynaecology
Core/Optional	**:** Core
Credits	: Pre-professorial- 5, Professorial- 7
Prerequisites	: Pre-professorial-Completion of Second MBBS examination
	: Professorial-Completion of Module based 3rd MBBS examination and PPD stream

Aim/s:

To be a competent intern house officer in Obstetrics and Gynaecology. He/she must acquire a working knowledge of the theoretical basis of the specialty, including its foundations in the basic medical sciences and research and required skills as a first contact medical officer.

Intended Learning Outcomes

On successful completion of the Gynaecology and Obstetrics program, students should be able to

1. Perform a comprehensive interview and physical examination of women incorporating ethical, social, and diversity perspectives to provide culturally competent health care.
2. Incorporate basic sciences and paraclinical training for a proper assessment of maternal and women's health issues to provide pre and post labour room and theatre care.
3. Identify common obstetric emergencies and understand relevant evaluation and management
4. Demonstrate knowledge on routine health care and health promotion that includes antenatal, postnatal care, family planning, reproductive and post reproductive health
5. Provide patient-centred care that is compassionate, appropriate, and effective for the prevention and management of emergency and chronic health problems and the promotion of health among women.
6. Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioural sciences, as well as the application of this knowledge to patient care among females.
7. Demonstrate the ability to continuously improve patient care based on scientific evidence, constant self-evaluation, research, and life-long learning.
8. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with public, patients, their families, and health professionals.

9. Demonstrate a commitment to carrying out professional responsibilities with adherence to ethical principles and an understanding of the medico-legal implications of practice
10. Demonstrate an awareness of and responsiveness to the larger context and specially the national system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.
11. Demonstrate the ability to engage as a member, manager, and a leader, in an-inter professional team, in a manner that optimizes safe, effective patient/ population-cantered care.
12. Demonstrate the qualities required to sustain lifelong personal and professional growth.
13. Provide appropriate medico-legal services in relation to women's health where required.

Course content

Basic sciences and Core clinical skills in Obstetrics & Gynaecology:

Clinical Anatomy of fetal skull and female pelvis for Obstetrics, Surgical anatomy of perineum, Diagnoses of pregnancy and dating, Anatomical and physiological changes in pregnancy, Early fetal development.

History taking and Examination in Obstetrics, Congenital Anomalies and their prenatal diagnosis.

Diagnostic Imaging in obstetrics and gynaecology, Prescribing in Pregnancy.

Antenatal care:

Pre-conception care, Antenatal care including Sri Lankan model, Early Pregnancy complications, Bleeding and pain in early pregnancy, Miscarriage, Ectopic pregnancy, Gestational trophoblastic diseases, Emesis and Hyperemesis gravidarum,

Fetal growth Disorders, Fetal Surveillance of at-risk foetus during antenatal/intrapartum periods, Birth asphyxia, Postdates pregnancy, Post term pregnancy, Rhesus isoimmunisation.

Management of normal and abnormal labour:

Diagnosis and management of normal and abnormal labour, Use of Partogram, Methods of analgesia in labour.

Preterm labour/PPROM, Induction and augmentation of labour, Operative interventions and Assisted vaginal delivery, Malpresentations and malposition/Breech delivery, Multiple Pregnancy, Fetal distress.

Obstetric Emergencies:

Eclampsia, Cord prolapse, Shoulder dystocia, Retained placenta, Acute inversion of the uterus, Maternal sepsis, Maternal collapse, Antepartum / postpartum Haemorrhage, Abdominal Pain in pregnancy.

Maternal Medicine:

Anaemia complicating pregnancy, Hypertension complicating pregnancy, Heart disease complicating pregnancy, Diabetes complicating pregnancy, Infections in pregnancy, Other medical disorders in pregnancy-Thrombophilia/VTE/Epilepsy/Liver diseases/0Thyroid disorders/Renal disorders/Mental health disorders etc.

Postpartum care:

Normal/Abnormal puerperium, Domiciliary care of a postpartum mother in Sri Lanka. Puerperal sepsis, Psychiatric disorders, Breastfeeding issues, Contraception in postpartum

Risk management/Obstetric Epidemiology/Medico legal issues in obstetrics & Gynaecology:

Measures to assess the quality of antenatal care-Maternal mortality and morbidity, Perinatal mortality, Medical and legal aspects of terminating pregnancy,

Gynaecology:

The development and anatomy of the female genital tract, Adolescent Gynaecology and Puberty, Primary and secondary amenorrhoea, Menstrual related abnormalities (Dysmenorrhoea/PMS), Menopause, Problems of climacteric-perimenopausal bleeding/symptoms/osteoporosis/Hormone replacement therapy, Abnormal uterine bleeding, Post coital bleeding, Gestational trophoblastic diseases.

Well woman concept: care through the life cycle (reproductive Life and menopause). Woman with chronic pelvic pain, Woman with vaginal discharge, Pruritus vulvae, Endometriosis, Adenomyosis , Pain in vulva, Premalignant conditions of the female genital tract, Gynaecological cancers, Benign tumours and premalignant conditions of the female genital tract, Gynaecological surgery and therapeutics, Pre and postoperative care.

Anatomy and Physiology of bladder, Urinary incontinence, Uterovaginal prolapse, Urinary tract infection, Urodynamic stress incontinence, Detrusor instability.

Fertility and Reproductive health

Human sexuality-Managing a couple with sexual problem, Pelvic inflammatory disease/sexually transmitted disease, Fertility control/Managing a couple requiring contraception-mechanism of action, indications, contraindications, limitations, advantages and complications of hormonal contraceptive methods/ permanent contraceptive methods/natural contraceptive methods/long acting reversible contraceptive methods/emergency contraceptive methods, Managing an Infertile couple, Primary and secondary subfertility- ovulatory dysfunction/ tubal factor/ endometriosis, coital dysfunction, male factor, unexplained infertility, Investigations in subfertility-semen analysis/endocrine evaluations/tubal patency tests/ultrasound in infertility, Methods of treatment-ovulation induction/artificial reproductive techniques/gamete donation/surgical treatment, diagnostic laparoscopy and hysteroscopy,

Case based Learning:

Woman with a fundus smaller than dates, Scarred Uterus, Pre-existing hypertension in pregnancy, Hypertension in pregnancy, with difficulty in breathing in pregnancy, with a previous history of heart disease in pregnancy, with pre-existing diabetes with a pregnancy, with abnormal blood glucose report in antenatal clinic, with post-partum haemorrhage-Primary/secondary, with painful episiotomy, with difficulty in establishing breastfeeding, with painful breast after delivery, with Pain and bleeding in late pregnancy before term, with watery vaginal discharge in pregnancy,

Woman presenting with post-menopausal bleeding, with an abnormal pap smear report, with a history of post coital bleeding, referred from the well woman clinic with post coital bleeding, with a pelvic/abdominal mass, with a changes in vulval skin/ Vulval ulceration,

A woman presenting with Pre/peri-menopausal symptoms, requesting HRT, on HRT following up, with irregular bleeding after starting on IUCD/Jadelle/DMPA, with missing IUCD, requesting post- partum contraception advice, requesting emergency contraception, with low haemoglobin report in antenatal clinic, with a rash and a fever in pregnancy, with a positive HIV test in pregnancy, with a vulval ulcers and a discharge in pregnancy, Counselling following IUD/Neonatal death, parents about a Foetus with Congenital abnormalities, a couple with hereditary conditions wishing to start a family, of a woman following a surgical complication, a recently married woman requesting contraception advice, Taking Consent for Gynaecological surgeries, Explaining an abnormal laboratory report.

Obstetric Skills:

Preparation and assisting for labour/ Caesarean section, intrapartum care, maintaining partogram, Artificial rupture of membranes (ARM), MEOWS chart, APGAR monitoring, neonatal resuscitation, suturing episiotomy, managing complicated pregnancy and labour

Gynaecological skills:

Cusco speculum examination, High vaginal swab technique, Papanicolaou smear sampling, Intrauterine contraceptive device placement, Pessary insertion, Advising on Contraceptive methods, Obtaining consent including Fraser-Gillick competence.

Time Allocation

Pre-professorial: (5 Credits) (This clinical training is assessed at Continuous assessments)	**Hours**	**Credits**
Hospital based Pre-professorial Clinical Training During 2nd and 3rd years- 8 weeks Morning sessions *4 contact hours per day for 6 days a week over 8 weeks*	192	2
Problem based teaching -learning activities in semester 8 (small group learning/team-based learning/ student presentations/ simulated learning/ reflective practices)	45	3
Para-clinical module-based Vertically Integrated Lectures/ Tutorials (Credits included in Paraclinical modules)	14	-
Professorial: (Final/5th year) (7 Credits)	Hours	Credits
Hospital based Clinical Training: Professorial	300	3

4 hours per day for 6 days a week over 8 weeks and at least 6 hours per week- night admissions		
Problem based teaching -learning activities: *2 hours a day for 4 days a week over 8 weeks* (small group learning/team-based learning/ student presentations/simulated learning/ reflective practices	64	4

Assessment method and Marks

	Component	Duration	% mark
1	Continuous Assessments:		
	Pre-professorial Logbook assessment	15 mins	5
	End-Professorial Logbook Viva	10 mins	5
	End-professorial OSCE (10 stations)	1 hour	10
2	Theory-SEQ Paper (5 questions)	2 hours	20
3	Common MCQ paper (50 MCQs)	2 hours	20
4	Clinical – Long Case- Obstetrics	20 mins	20
5	Clinical-Long cases -Gynaecology	20 mins	20
	Total		100

Recommended Reading/references

Reading list

- Obstetrics by Ten Teachers, 20th Edition 2017, Kenny LC, Myers JE
- Gynaecology by Ten Teachers, 20th Ed 2017, Kenny LC, Bickerstaff H
- Royal College of Obstetricians and Gynaecologists guidelines https://www.rcog.org.uk/guidelines
- National guidelines (SLCOG & ministry of Health) http://www.slcog.lk/img/guidelines/slcog/Guidelines%20Final%20Dec%202013.pdf

Optional

- William's Obstetrics 24th edition 2014 by Cunningham FG, Leveno KJ, Bloom SL, Spong KY, Dashe JS, Hoffman BL, Casey BM, Sheffield JS
- William's Gynaecology 4th edition 2020 by Hoffman BL, Schorge JO, Schaffer JI
- Clinical Obstetrics and Gynaecology, 4th Edition 2018 by Magowan BA, Owen P, Thomson A.

DETAILED DESCRIPTION OF PAEDIATRICS ROTATIONS

Paediatrics is the medical specialty that deals with wellbeing of children. The target population includes children from birth up to 14 years in Sri Lanka. The upper age limit can vary from country to country. Children are the future of any country and their wellbeing is a major obligation of any community. A healthy child will produce a healthy and productive adult, so any investment made on wellbeing of children is an investment for the future. Compared to other disciplines of Medicine, Paediatrics involves a lot of health promotion activities compared to curative aspects. These include resuscitation at birth, routine neonatal care, promotion of breast feeding, and optimizing nutrition during childhood, monitoring of growth &neurodevelopment, immunization, and school medical inspection.

Therefore, work of a Paediatricians extends well beyond the limits of hospital settings. Great deal of Paediatric care is provided in collaboration with primary health care activities. Child is not just a 'small man'. It is not possible to apply 'adult medical knowledge' directly to children. History taking is an important skill a doctor should possess. It is challenging process in paediatrics because most of the time the history is obtained from a third party. Usually it is mother's interpretation of child's condition than what child really feels. Unlike adults, children do not allow examination freely. They will resist and cry during the process. Routine examination techniques described in textbooks may not be possible in an uncooperative crying child. One must learn the technique of physical examination in children through practice. Further, the differential diagnoses and management strategies too are different in children. As some medication are not effective or not recommended in children prescription in children is also a different art in children.

Professorial Course No	: **MED5Clin47**
Course Title	: Paediatrics
Core/Optional	: Core
Credits	: Pre-professorial- 5, Professorial- 7
Prerequisites	: Pre-Professorial-Completion of Second MBBS examination : Professorial-Completion of Module based 3rd MBBS examination and PPD steam

Aims

To impart the knowledge and skills required for a medical student to gain expertise to function efficiently as a paediatric intern house officer and later to be an effective primary health care provider for children and families they live with.

Intended Learning Outcomes

At successful completion of the course of Paediatrics, students should be able to:

1. To obtain a complete and relevant history with emphasis on different components of a paediatric history and identify the clinical importance of each.

2. Master the technique of eliciting physical signs during clinical examination of a child.
3. Identify the modifications necessary to examine an uncooperative child.
4. Perform an accurate routine neonatal examination.
5. Measure growth parameters precisely using relevant instruments and to interpret growth parameters with the aid of appropriate growth charts.
6. To perform an accurate neuro-developmental assessment on children, from birth up to five years.
7. Identify and describe a problem in a child and the family.
8. Plan relevant investigations and able to interpret results, in order to arrive at a diagnosis.
9. Diagnose and treat common childhood diseases.
10. Identify conditions needing specialized management and method of referrals.
11. Be familiar with the techniques and competent in providing Neonatal resuscitation, and Paediatric Basic life support.
12. Be familiar with paediatric emergencies and contribute effectively to their management.
13. Have communication skills needed for health education, counselling and breaking bad news.
14. Be competent in documentation relevant in paediatric wards.
15. Demonstrate critical understanding of scientific basis of paediatrics in order to proceed to further specialization in the subject if he/she so desires.
16. Demonstrate the ability to carry out responsibilities in a professional and an ethical manner.

Course content:

Introductory Topics

Introduction to paediatrics, Paediatric history taking, Physical examination of a child, Measurement of growth parameters, Growth monitoring and growth charts, Identification and management of deviations in physical Growth, Normal neuro-development during first five years, Development delay, Breast feeding, principle of infant feeding, Nutrition, Malnutrition, Childhood obesity and consequences, Failure to thrive, Immunization/EPI shedule, Genetics

Cardiovascular System

Acyanotic Congenital Heart Disease, Cyanotic Congenital Heart Disease, Rheumatic Fever, Infective endocarditis, Kawasaki disease, Congestive cardiac failure, Cardiac arrest in childhood, Anaemia

Respiratory System

Congenital abnormalities of the respiratory tract, Identification and management of a child with acute respiratory distress, Influenza/ otitis media/ sinusitis/ pharyngitis, Epiglottitis/croup/bacterial tracheitis, Lower respiratory tract infections &

Pneumonia, Pertussis, Bronchial asthma and other allergic diseases, Bronchiolitis

Nervous System
Headache, Meningitis, Encephalitis, Seizure disorders, Cerebral palsy, Floppy baby, Congenital abnormalities in CNS, Muscular dystrophies, Brain tumours

Gastrointestinal System
Abdominal pain, Fluid and electrolytes, Acid base disorders and management, Acute diarrhea, Chronic diarrhea, Childhood constipation and Encopresis, Hepatitis, Chronic liver disease,

Endocrinology
Diabetes mellitus, Congenital adrenal hyperplasia, Thyroid disorders/Congenital hypothyroidism, Endocrine assessment of short stature and pituitary disorders, Adrenal disorders, Normal and abnormal puberty

Genitourinary System
Enuresis, Urinary tract infections, Glomerulonephritis, Nephrotic Syndrome, Nephritic syndrome, A child with haematuria, Congenital anomalies of GUT, Acute renal failure, Chronic renal disease, Imaging of GUT in children

Haematology
Aneamia-Introduction, Nutritional aneamia, Haemolytic aneamias, Haemoglobinopathies, Platelet disorders, Clotting disorders, Leukaemia-Haematological malignancies.

Musculoskeletal System
Rickets, Monoarthritis, Polyarthritis

Neonatology
Resuscitation of the new born, Physiological changes at birth, Routine neonatal examination, Prematurity and low birth weight, Respiratory distress in new born, Birth asphyxia, Neonatal sepsis, Neonatal jaundice, Small for dates and large for dates babies, Neonatal surgical problems, Management of neonatal emergencies-Preterm delivery, Neonatal convulsion, Septic baby, Routine new born care, Neonatal screening, Establishing breast feeding, Transportation of a sick neonate, Gastrointestinal disorders of newborn, Haematological disorders of newborn.

Infections
Childhood Tuberculosis, Typhoid fever, Leptospirosis, Dengue fever/DHF, Polio and AFB, Rabies, Measles/Mumps/Rubella/Chickenpox/Hand foot and mouth disease, Paediatric HIV, Notification of communicable diseases

Common paediatric emergencies
Acute respiratory distress, Anaphylaxis, Acute exacerbation of asthma, Acute upper airway obstruction, Stridor, Choking, Convulsions, Status epilepticus, Unconscious

child, Hypertensive encephalopathy, Cardiac arrest, Cardiac arrhythmias, Circulatory collapse, Shock, Dehydration, Dengue haemorrhagic fever, Hematemesis, Poisoning, Snake bite, Acute renal failure, Diabetic ketoacidosis, Neonatal emergencies, Basic life support, Advance life support

Miscellaneous Topics

Eczema, Other common skin conditions in childhood, Juvenile Inflammatory Arthritis, Connective tissue disorders, Child abuse and neglect

Ward skills in Paediatrics:

Communication with parents, Documentation in BHT, diagnosis cards,
Guthrie test, Hematocrit, Phototherapy, Exchange transfusion, Umbilical vein catheterization,
Preparation for special tests: DMSA, DTPA, MCUG.

Time Allocation

Pre-professorial: (5 Credits) (This clinical training is assessed at Continuous assessments)	**Hours**	**Credits**
Hospital based Pre-professorial Clinical Training During 2nd and 3rd years- 8 weeks Morning sessions *4 contact hours per day for 6 days a week over 8 weeks*	192	2
Problem based teaching -learning activities in semester 8 (small group learning/team-based learning/ student presentations/ simulated learning/ reflective practices)	45	3
Para-clinical module-based Vertically Integrated Lectures/ Tutorials (Credits included in Paraclinical modules)	25	-
Professorial: (Final/5th year) (7 Credits)		
Hospital based Clinical Training: Professorial *4 hours per day for 6 days a week over 8 weeks, weekend admissions and at least 6 hours per week- night admissions*	300	3
Problem based teaching -learning activities: *2 hours a day for 4 days a week over 8 weeks* (small group learning/team-based learning/ student presentations/ simulated learning/ reflective practices)	64	4

Assessment method and Marks allocation			
	Component	**Duration**	**% mark**
1	Continuous assessments: Pre-professorial Logbook Viva End-professorial Logbook Viva End-professorial OSCE (10 stations)	 15 mins 10 mins 1 hour	 5 5 10
2	Theory-SEQ Paper	3 hours	20
3	Common MCQ paper (50 MCQs)	2 hours	20
4	Clinical – Long Case	45 mins	20
5	Clinical-short cases	20 mins	20
	Total		100

Recommended Reading/references

- Essential Paediatrics 4th Ed 1999 by Hull D, Johnston DI.
- Ghai Essential Paediatrics 9th Ed 2019, by Paul VK, Bagga A.
- Hospital Paediatrics by Milner AD, Hull D,3rdedition 1998
- Nelson's Textbook of Paediatrics, 21st Ed 2019, Kliegman R, St. Geme J.
- Forfar and Arneil's Textbook of paediatrics 7th Ed 2008, by McIntosh N, Helms PJ.

DETAILED DESCRIPTION OF PSYCHIATRY ROTATIONS

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 behavioral problems and manage them. Students will also learn to identify problems which require referral to specialized treatment. Sciences basic to Psychiatry will be taught during the first two years and clinical competencies during the third fourth and final year. Final year consists of eight weeks of professorial training with a summative examination.

Professorial Course No	: **MED5Clin55**
Course Title	**:** Psychiatry
Core/Optional	**:** Core
Credits	**:** Pre-professorial- 3, Professorial- 5
Prerequisites	**:** Pre-professorial: Completion of Second MBBS examination
	: Professorial: Completion of Module based 3rd MBBS examination and PPD steam

Intended Learning Outcomes:

At successful completion of the course of Psychiatry, students should be able to:

1. Demonstrate patient-centred care that is compassionate, appropriate, and effective for the prevention and management of mental health problems and the promotion of mental health within the community.
2. Demonstrate knowledge of established and evolving biomedical, clinical, epidemiological, and social-behavioural sciences, as well as the application of this knowledge to patient care among the mentally ill.
3. Demonstrate the ability to continuously improve patient care based on scientific evidence, constant self-evaluation, and life-long learning in mental health related issues.
4. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals in the context of mental health.
5. Demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles.
6. Demonstrate the ability to practice evidence-based medicine, and commitment towards continuing medical education.
7. Demonstrate an awareness and responsiveness to the larger context and system of health care, including local cultural aspects, as well as the ability to call effectively on other resources in the system to provide optimal health care for the mentally ill.
8. Demonstrate the ability to engage in an inter-professional team in a manner that optimizes safe, effective patient- and population-centred care for the mentally ill.
9. Provide appropriate medico-legal services where required.

10. Demonstrate the qualities required to sustain lifelong personal and professional growth in terms of mentally ill.
11. Demonstrate the ability to use audit and research to improve the quality of patient care

(All above competencies are expected across life stages: children, adolescents, and adults)

Course content

Psychology & behavioural science

Human behaviour (Introduction), Determinants of Human behaviour (introduction) Biological determinants of behaviour, Social and cultural determinants of human behaviour, Psychological determinants of human behaviour, Economic determinants of health, Ethical and moral determinants of behaviour, Personality development, Determinants of personality, Health, disease and ill health, Determinants of health.

Health care systems in Sri Lanka, Health seeking behaviour, Mental Health and wellbeing, Positive mental health, Mental and social capital Determinants of mental health wellbeing, mental and social capital, Ways of enhancing positive mental health, Social values, Doctor as a professional, a care giver, health advocate, International and National frame work for health, mental health care, Psychiatric services in Sri Lanka and referral pathways, Communication and counselling.

Reaction to stress, Emotions & limbic system, Management of emotions, Anger management and conflict resolution, Human rights, Family society and culture, Team work, Freud & unconscious, Personality, Developmental psychology, Learning & memory, Intelligence, Gender & sexual orientation, Attitudes & stigma, Sick role & illness behaviour, Grief & bereavement, Breaking bad news, Biological differences between male and female, Psychosocial aspects of human sexuality and psycho-sexual development, Adolescent behaviour, Pregnancy Parturition, puerperium and lactation, Psychosocial factors in food selection, Physiological, clinical and psychosocial aspects of pain, Psychological aspects of higher functions.

Psychological medicine

Introduction to Psychiatry, Psychopathology, Patient evaluation(History, MSE, physical examination, investigations) Assessment of Mental State (Appearance and behaviour, Speech, Mood, Thought content, Perceptual abnormalities, Cognition, Insight), An introduction to ICD 10, Risk assessment(suicide, DSH, violence, homicide, self-neglect, absconding risk) Adolescent mental health, Child Psychiatry(Behavioural disorders, Emotional disorders, Developmental disorders, Other disorders during childhood/adolescents-tics, encopresis, bedwetting, pica and eating disorders), Psychiatry of elderly(Dementia, Delirium, Management of other neuropsychiatric disorders in old age, Elder abuse/law and services for elders), Community psychiatry

An introduction to affective disorders, Depression, Manic episode, Bipolar affective disorder, Stress, Post traumatic stress, grief reaction, Anxiety disorders (Generalized

anxiety disorder, Phobic anxiety disorders, Other anxiety disorders) and stress related disorder, Obsessive compulsive disorder, Somatoform disorder, Dissociative disorders, An introduction to psychosis, Schizophrenia, Schizoaffective disorders, Delusional disorder, Substance abuse, abuse of prescription medicine and related mental health problems, Suicide, Deliberate self-harm, Delirium, Dementia, Neuropsychiatric disorders, Personality disorders, Postpartum psychiatric disorders, Disorders of Old age,

Human sexual response, Sexual disorders, Sexual dysfunction, Disorders of sexual preference and gender related issues, Eating disorders, Sleep related disorders, Psycho pharmacology, Electro convulsive therapy, Psychotherapy, Counselling, Forensic psychiatry, Management of an aggressive patient and de-escalation, Psychiatric emergencies(patient with high risk of suicide, Risk assessment of suicide/violence/homicide, lithium toxicity, neuroleptic malignant syndrome, serotonin syndrome, acute dystonia, life threatening side effects of clozapine, Ethics and stigma, Intellectual impairment, Liaison psychiatry

Time Allocation

Pre-Professional: (3 Credits) (This clinical training is assessed at continuous assessments)	**Hours**	**Credits**
Hospital based Pre-Professorial clinical training during 3rd year-4 weeks morning sessions *4 contact hours per day for 6 days a week over 4 weeks*	96	1
Problem based teaching-learning activities in semester 8 (small group learning/team-based learning student presentations/ simulated learning/ reflective practices	30	2
Para clinical module-based vertically integrated lectures/ Tutorials (Credits included in Paraclinical modules)	27	-
Professorial (Final/5th year) (5 Credits)		
Hospital based clinical training: professorial *4 hours per day for 6 days a week over 8 weeks and at least 6 hours per week -night admissions*	192	2
Problem based teaching-learning activities: *2 hours a day for 4 days a week over 6 weeks* (small group learning/ team based learning/ student presentations/ simulated learning/ reflective practices)	45	3

Assessment method and Marks allocation

	Component	**Duration**	**% mark**
1	Continuous assessment Logbook assessment	10 min	5

	End of module theory (MCQ) paper	45 min	5
2	Theory-SEQ Paper	2 hours	25
3	Common MCQ paper (50 MCQs)	2 hours	25
4	Clinical – Long Case	45mins	25
5	MOCE (2 stations) with the Final /written examination	16 mins	15
	Total		100

Recommended Reading/references

- Shorter Oxford Textbook of Psychiatry, 7th edition 2017 by Harrison P, Cowen P, Burns T, Fazel M
- Handbook of Clinical Psychiatry, a Practical Guide; 2nd Ed 2013, de Silva V, Hanwella R
- Psychiatry, Oxford. 5th Ed by McKnight R, Price J, Geddes J.
- Textbook of Psychiatry by Puri BK, Treasaden IH, 3rd edition 2011
- Shorter Oxford Textbook of Psychiatry, 7th edition 2017 by Harrison P, Cowen P, Burns T, Fazel M.
- International Classification of Diseases -11th edition (ICD -11) - Chapter 6 Mental, behavioural, or neurodevelopmental disorders

Personal and Professional Development Stream

Course No	: MED-PPD-2
Course Title	: Personal and Professional Development Stream
Credits	: 2
Core/Optional	: Core
Prerequisites	: Enrolment into MBBS programme

Aim/s:

- Reinforcing professionalism, ethical conduct, critical reflection and empathy towards patients as prime requirement of a medical practice

Intended Learning Outcomes

At successful completion of the course, students should be able to:

1. Understand the limits of personal knowledge and abilities and to reflect on the same
2. Demonstrate intellectual curiosity to actively pursue the acquisition of new knowledge and skills necessary to refine and improve medical practice
3. Demonstrate the capacity and determination to be a lifelong learner
4. Use information and communication technology to enhance the quality of care, networking, personal and professional development
5. Demonstrate healthy behaviour at workplace and outside

Course content:

- Guide to a productive life in university, Code of conduct, effective teacher and peer relationships, Medical students position in university/ hospital and the society at large, Respecting cultures and beliefs, respecting patients concerns / grief / anxiety and circumstances, Communication skills to suit different and difficult situations, respecting alternative medical practices, Reflective writing, Self-audit and appraisal, Leadership and teamworking, Working effectively within teams / with responsibilities and in partnership, cordial peer relationships, ethical and legal knowledge for beginner, Confidentiality / consent / honesty and integrity, handling complaints about practice- self and colleagues, legal and professional responsibilities as a practitioner, professional documentation for the beginner, self-care, self-control, self-maturity in the society, effective time management,

Time Allocation

Total 64 hours (Scenario / Case Based Small Group Discussions / Large Group Teaching / Student presentations / simulations / reflective practices)

- PTP- 10 hours
- Preclinical phase – 18 hours (6 hours per semester)
- Paraclinical Phase – 36 hours (9 hours per semester)

Assessment method and Mark allocation:

Portfolio based formative assessment as an essential criterion to enter fifth year training

Recommended Reading: Lecture notes and portfolio guidance

PROFESSIONALISM IN CLINICAL PRACTICE (PCP)

Course No : MED-PCP-1 Course Title : Professionalism in Clinical Practice Stream Credits : 1 Core/Optional: Core Prerequisites : Successful completion of Personal and Professional Development Stream
Aims: • graduating a student with entrustable skills, sound attitudes of medical fraternity and capacity to sustain and develop professionally.
Intended Learning Outcomes **At successful completion of the course, students should be able to:** 1. Demonstrate effective and compassionate interpersonal communication skills towards patients and families necessary to provide and sustain effective medical care. 2. Display the personal attributes of compassion, honesty, and integrity in relationships with patients, families, and the medical community 3. Demonstrate adherence to the highest ethical standards of judgment and conduct as it applies to the healthcare milieu 4. Demonstrate a critical self-appraisal in the knowledge and practice of medicine, as well as receive and give constructive appraisal to/from patients, families, colleagues and other healthcare professionals 5. Seek help in instances where a situation is beyond one's expertise. 6. Demonstrate ability work in the capacity of a leader as well as a member of a health care team 7. Demonstrate the ability to manage the needs of diverse populations during discharging duties or decision-making during patient management
Course content: • Ethics and legal knowledge for intern, affective peer and a leader in team working, Effective communicator, personal attributes of compassion, honesty, and integrity, Medical decision maker, self -care/self -aware/ self- audit and self-control, channels of seeking help personally and clinically, respecting diversity and its limitations
Time Allocation 32 hours during last 18 months (Scenario / Case Based Small Group Discussions / Large Group Teaching / Student presentations / simulations / reflective practices)
Assessment method and Mark allocation: Portfolio based formative assessment as an essential criterion to sit for the Final MBBs Examination.
Recommended Reading: Lecture notes and portfolio guidance

APPENDIX A – Essential Web Links

- University By-Laws: https://www.wyb.ac.lk/wp-content/uploads/2022/04/Student-Discipline-by-laws-.pdf
- Faculty: Home - Faculty of Medicine (wyb.ac.lk)
- University: Wayamba University of Sri Lanka (wyb.ac.lk)
- Health ministry: Ministry Of Health - HOME
- Education Ministry: Ministry of Education Sri Lanka | MOE
- University Grants Commission: University Grants Commission - Sri Lanka (ugc.ac.lk)