

Integrated module for the Medical Undergraduate Programme - Year 2 Semester 2

Credits: 4

Duration: 03 weeks (15 days)

Topic & Concepts	Department	Time (hrs)	Teaching Learning activity	Objectives
2008-2/SBM-10/1				
Reproductive biology – Integrated Anatomy and Physiology in relation to human reproduction	Anatomy	6	Workshop (Lecture- 1x3, SGD -3)	1. Anatomy of Reproductive System 2. Physiology of Reproductive System 3. SGD Session on the Reproductive anatomy and physiology
2008-2/SBM-10/2				
Developmental Anomalies	Anatomy	7	Lecture 1hr Preparation 3 hrs, Presentations 3 hrs	1. Preparation and presentation of poster/s on a selected developmental anomaly.
2008-2/SBM-10/3				
Cross sectional Anatomy	Anatomy	5	Lecture – 1hrs Presentation- 2 x 2 hrs	1. understand the importance of learning cross-sectional anatomy. 2. Study the different imaging modalities available for cross-sectional imaging. 3. Learn to draw the cross sections of the body at standard levels. 4. Describe the location of abnormal foci presented on a cross section.
2008-2/SBM-10/4				
Sports Medicine Workshop	Anatomy/ Physiology	5	Workshop Lecture -1x4 Practical -1	1. Basis of injuries to muscle, bone, tendon and ligaments 2. b. Common sports injuries- diagnosis and basic management 3. c. Physiological basis of fitness testing 4. d. Exercise prescription for cardiopulmonary fitness, weight management and resistance training
2008-2/SBM-10/5				
Alcoholism	Biochemistr y	8	4H – Lecture 4H – Student Seminar	1. Alcohol metabolism and effects of long-term alcohol consumption
2008-2/SBM-10/6				
Metabolic derangements		8	Student seminars	1. Diabetes Mellitus
2008-2/SBM-10/7				

(a) Alcoholism	Biochemistry	2h	Lectures	Alcohol metabolism
(b) Alcoholism	Sociology	1h	Lecture	Alcoholism – Sociological aspects
(c)Alcoholism	Psychiatry	1h	Lectures	<p>1) Be able to describe safe levels of alcohol use Be able to describe what is meant by the following terms</p> <ul style="list-style-type: none"> * Social drinking * Harmful use of alcohol (or alcohol misuse) * Alcohol dependency * Binge drinking * Acute alcohol withdrawal * Delirium tremens <p>2) Describe the commonly used types of alcohol, and common patterns of alcohol use, in Sri Lanka.</p> <p>3) Discuss different factors that contribute to alcohol misuse and dependency.</p> <p>4) Briefly discuss different strategies which have been shown to be effective in reducing alcohol misuse and dependency (at a national or international level)</p>
2008-2/SBM-10/8				
Problem Based Learning				
1) Cardiac failure / Copulmonale	Physiology	4+10 4+ 9	PBL – 8 hrs Resource Lectures – 19 hrs	<ol style="list-style-type: none"> 1. to discuss mechanisms by which breathing is controlled and the determinants of alveolar ventilation. 2. to relate the anatomy of the mouth, palate and pharynx to their function in breathing 3. to discuss the causes and mechanisms underlying chronic airflow obstruction and its complications 4. to discuss issues related to smoking , and chronic lung diseases associated with smoking 5. to discuss why the upper airway becomes vulnerable to obstruction during sleep 6. to discuss the pathogenesis of respiratory failure 7. to discuss the physiological basis of the management of patients with chronic airflow obstruction

2) Acute Renal failure				<ol style="list-style-type: none"> 1. to describe the anatomical and physiological determinants of glomerular filtration rate and renal blood flow. 2. to describe the function of the renal tubules, i.e reabsorption, secretion and urine concentration. 3. to describe the renal actions and regulation of the rennin-angiotensin system, prostaglandins and atrial natriuretic peptide. 4. to describe the role of the kidney in acid-base and potassium balance, and the consequences of hyperkalaemia. 5. to describe the mechanisms involved in fluid and electrolyte balance, thirst and salt appetite 6. to describe the volume and composition of body fluid compartments and principles rehabilitation therapy 7. to describe the categories of renal failure (pre-renal, renal, and post-renal) and the immediate consequences of acute renal failure. 8. to describe the anatomical relationships of the prostate gland and the effect of prostatic enlargement of urinary outflow.
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Causes of ill health				
2008-2/SBM-10/09				
What is ill health ; Global & local situation - Trends & dynamics	1. explain what ill health is. 2. describe the current burden of disease, disease patterns in relation to global and Sri Lankan situation	Com.med	1	Lecture
2008-2/SBM-10/10				
Causes of ill health				
a. Biopsychosocial aspects - Lifestyle, personality, environment etc.	1. explain what is meant by the term 'Biopsychosocial'. 2. list the psychological and social factors that may affect health & illness. 3. describe how the psychological and social factors can affect health & illness. 4. explain briefly what is meant by the term 'stress'. 5. describe how stress can impair homeostasis.	Psychiatry	3	Lecture
b. Physical and chemical factors	1. state the main physical and chemical factors that cause ill health 2. explain briefly, how these factors lead to ill health	Medicine	1	Lecture
c. Nutritional, endocrine & metabolic	1. state the interrelationship between nutrition & ill health 2. state the main endocrine and metabolic factors that cause ill health 3. explain briefly, how these factors lead to ill health	Medicine	1	Lecture
d. DNA & the cancer cell	1. list the factors that could cause damage to DNA. 2. describe the repair mechanisms available for damaged DNA. 3. recall that DNA repair mechanisms lead to oncogenesis. 4. list the other factors that cause transformation of normal cells into cancer cells. 5. state how normal cells differ from cancer cells in energy metabolism, DNA synthesis & cell division	Bioch	2	Lecture
2008-2/SBM-10/11				
Principles of management of illnesses	1. state the principles of management of ill-health 2. appreciate that management requires multidisciplinary and holistic approaches 3. list the different modalities of management of a patient	Medicine	2.	Lecture

Integrated Human Biology Module – (Year 2 Semester 2)

Module Summary

Department	Lectures (hrs)	SGD (hrs)	Preparation for Presentation (hrs)	Presentation (hrs)	Student Seminar (hrs)	PBL (hrs)	Total (hrs)
Anatomy	6	3	3	7			19
Physiology	19					8	27
Biochemistry	8				12		20
Psychiatry	4						4
Sociology	1						1
Community Medicine	1						1
Medicine	4						4
Anaesthesiology	4						4
Total	47	3	3	7	12	8	80

Names and Departments of the teachers involved in the teaching program

Dept. of Anatomy

Prof. M Chandrasekera
Dr. D. Nanayakkara
Dr S B Adikari
Dr. H Amarathunge
Dr J K Dissanayake
Dr. A. Sominanda

Dept. of Biochemistry

Dr. P.H.P. Fernando
Dr. HKI Perera
Dr JGS Ransinghe
Dr. K.P. Maduwage

Dept. of Physiology

Dr. A. Kariyawasam
Dr. A A J Rajaratne
Dr. A.S. Ariyasinghe
Dr. P. Dahanayake

Dept. of Community Medicine

Dr. A. Jayasinghe
Dr. S. Dharmaratne

Dept. of Medicine

Prof. S.A.M. Kularatne
Prof. N. Senanayake
Dr. W.A.T.A. Jayalath
Dr. A. Medagama

Radiology

Dr. B. Hewavithana
Dr. S. Rosairo
Dr. D. Nanakkara

Dept. of Anaesthesiology

Prof. C.D.A. Goonasekera
Dr. V. Pinto

Dept. of Psychiatry

Dr. G.S.S.R. Dias

Dr. T. Rajapakshe

Dr. Tissa Atukorala, Dept. of Sociology, Faculty of Arts

Dr. H.J. Suraweera, Consultant, Orthopaedic surgeon

Prof. H. Seneviratne, Faculty of Medicine, Colombo

Dr. A. Ratnayake, Teaching Hospital, Peradeniya

Dr. K. Edirimanne, Orthopaedic Unit, Kandy Hospital

Dr. C.S. Warusawithana, Teaching Hospital, Peradeniya

Examination Format

Module	Credits	Total duration of examination	MCQ	SAQ
Integrated Human Biology	4	3 Hrs.	1.5 Hrs.	1.5 Hrs.