

BIOCHEMISTRY (VBS123) LECTURE SCHEDULE
1ST B.V.Sc 2016/2017 Batch Semester 2 (15-10-2018 to 15-02-2019)

Date	Topic	Hours	Time	Lectures
	Hormones(9 lectures)			
17-10-2018	8. Steroid hormones: Mode of action, Adrenocortical hormones	1L	08.00-09.00	AJ/ SW
17-10-2018	9. Adrenocortical hormones, other steroid hormones, hormonal preparations.	1L	09.00-10.00	AJ / SW
18-10-2018	13. Synthesis of steroid hormones cellular action Adrenal cortex hormones; stress	2L	08.00-09.00	AJ/SW
19-10-2018	13. Synthesis of steroid hormones cellular action Adrenal cortex hormones; stress		08.00-09.00	AJ/SW
25-10-2018	14. Hormone preparations available; Chemical Composition	1L	08.00-09.00	AJ/SW
	BLOOD (17 lectures)			
26-10-2018	1 Blood as a media in disease diagnosis Collecting of blood , species variations and anticoagulant	1L	09.00-10.00	S.W
31-10-2018	2 Composition of blood- Cytoskeleton system of a RBC, Blood clotting	1L	08.00-09.00	S.W
31-10-2018	3 Erythropoiesis, role of vitamin B12, Folate, iron, Cu, Vitamin C, Vitamin B6, Precursor of ALA	2L	09.00-10.00	S.W
01-11-2018	3 Erythropoiesis, role of vitamin B12, Folate, iron, Cu, Vitamin C, Vitamin B6, Precursor of ALA		08.00-09.00	
02-11-2018	4 Metabolism of RBC, role of glycolysis and HMP, Utilization of ATP with iron transport, role of 2.3 DPG	1L	09.00-10.00	S.W
07-11-2018	5 The role of Glutathione and NADPH, Antioxidant activity; Se and Vitamin E	1L	08.00-09.00	S.W
07-11-2018	6 Hemoglobin, recall structure, types, Position of Fe 2+ and oxygen binding	1L	09.00-10.00	S.W
08-11-2018	7. Oxygen dissociating curve; CO2 transport, Methemoglobin. Cyanide poisoning , Catabolism of RBC, hemolysis,	1L	08.00-09.00	S.W
09-11-2018	8. Bile pigments; different types	1L	09.00-10.00	S.W
14-11-2018	9. Jaundice; prehepatic, hepatic post hepatic and physiological	2L	08.00-10.00	S.W
15-11-2018	10.Tests for the diagnosis of different types of jaundice	1L	08.00-09.00	S.W
16-11-2018	11. Plasma proteins : Types and electrophoretic patterns of plasma proteins	1L	09.00-10.00	A.W
21-11-2018	12. Functions , plasma concentrations of plasma proteins Acute phase proteins in disease diagnosis	1L	08.00-09.00	A.W
21-11-2018	13. Immunoglobulins, Fibrinogen , Structure and mode	1L	09.00-10.00	A.W
23-11-2018	14. Enzyme- linked Immunosorbent Assay, principles and applications	2L	09.00-10.00	A.W
28-11-2018	14. Enzyme- linked Immunosorbent Assay, principles and applications		08.00-09.00	
	RUMINANT METABOLISM (5 lectures)			

28-11-2018	1 Anaerobic oxidation and rumen microbes	1L	09.00-10.00	A.J/DS
29-11-2018	2. Synthesis of volatile fatty acids, Gluconeogenesis in ruminants	2L	08.00-09.00	A.J/DS
30-11-2018	2. Synthesis of volatile fatty acids, Gluconeogenesis in ruminants		09.00-10.00	
05-12-2018	3. Protein and lipid digestion in ruminants	2L	08.00-10.00	A.J/DS
	LACTATION BIOLOGY AND BIOCHEMISTRY OF EGG(7 lectures)			
06-12-2018	1 Composition of milk, colostrum	1L	08.00-09.00	A.J/DS
07-12-2018	2 Species variation in composition	1L	09.00-10.00	AJ/DS
12-12-2018	3 Biosynthesis of lactose,	1L	08.00-09.00	A.J/DS
12-12-2018	4. Synthesis and secretion of milk fat, Lactose intolerance, Milk and allergies	2L	09.00-10.00	A.J/DS
13-12-2018	4. Synthesis and secretion of milk fat, Lactose intolerance, Milk and allergies		08.00-09.00	
14-12-2018	5. Biochemistry, composition and egg shell formation of avian egg and calcium homeostasis	2L	09.00-10.00	D.S
19-12-2018	5. Biochemistry, composition and egg shell formation of avian egg and calcium homeostasis		08.00-09.00	
	MOLECULAR BIOLOGY (18 lectures)			
19-12-2018	1. Genes and chromosomes, Viral DNA, bacterial DNA Organization of eukaryotic DNA	1L	09.00-10.00	A.W
20-12-2018	2. DNA metabolism (DNA replication)	1L	08.00-09.00	A.W
21-12-2018	3. DNA repair, DNA recombination	1L	09.00-10.00	A.W
	Semester Brake - 22-12-2018 - 30-12-2018			
02-01-2019	4. RNA metabolism, RNA processing	1L	08.00-09.00	A.W
02-01-2019	5. Protein synthesis and genetic code	2L	09.00-10.00	A.W
03-01-2019	5. Protein synthesis and genetic code		08.00-09.00	
04-01-2019	6. Post-translational modification and action of antibiotics	1L	09.00-10.00	A.W
09-01-2019	7. Regulation of gene expression,	1L	08.00-09.00	A.W
09-01-2019	8. Activity of lactose operons	1L	09.00-10.00	A.W
10-01-2019	9. Restriction enzymes and Recombinant DNA technology	1L	08.00-09.00	S.W
11-01-2019	10. Polymerase chain reaction and gel electrophoresis - principles and application	2L	09.00-10.00	S.W
16-01-2019	10. Polymerase chain reaction and gel electrophoresis - principles and application		08.00-09.00	
16-01-2019	11. Sequencing - ABI sequencing principles, genome sequencing	1L	09.00-10.00	S.W
17-01-2019	12. Gene expression and real time PCR	1L	08.00-09.00	S.W
18-01-2019	13. Single nucleotide polymorphisms and other genetic variants, applications of genetic markers	1L	09.00-10.00	S.W
23-01-2019	14. Bioinformatics - Introduction to NCBI, ensembl websites, blast, animal genomes	2L	08.00-10.00	S.W
24-01-2019	15. Animal Cloning and genetic engineering	1L	08.00-09.00	S.W
	CLINICAL BIOCHEMISTRY (13 lectures)			

25-01-2019	1.Laboratory test in disease diagnosis and quality control	1L	09.00-10.00	D.S
30-01-2019	2.Diagnostic and prognostic markers	1L	08.00-09.00	D.S
30-01-2019	3.Organ function tests	4L	09.00-10.00	D.S
	Kidney function tests			
31-01-2019	Liver function tests		08.00-09.00	
01-02-2019	Markers of cardiovascular risk and myocardial infarction		09.00-10.00	
	Thyroid function tests			
	Markers of gastrointestinal function Adrenal function tests			
06-02-2019	Biochemical effects of malignant diseases		08.00-09.00	
06-02-2019	4.Metabolism of xenobiotics	2L	09.00-10.00	D.S
07-02-2019	4.Metabolism of xenobiotics		08.00-09.00	
08-02-2019	5.Disorders of energy metabolism	2L	09.00-10.00	A.J
13-02-2019	Obesity		08.00-09.00	
	Diabetic Mellitus			
	Pregnancy toxemia			
	Ketosis			
	Non-alcoholic Fatty Liver			
13-02-2019	6.Calcium-Regulating Hormones and Diseases of Abnormal Minerals (Calcium, Phosphorus, Magnesium) Metabolism	1L	09.00-10.00	D.S
14-02-2019	Milk fever		08.00-09.00	
	Eclampsia			
15-02-2019	Hypomagnesemic tetany		09.00-10.00	

A.J : Dr. A. Jayasooriya S.W : Dr. S Wickramasinghe
A.W : Dr A.Wanigesekara D.S : Dr. D Satharasinghe

16-02-2019 - 17-03-2019 –Study leave

18-03-2019 - 1st - BVSc Examination