St.James College of Pharmaceutical Sciences St.James medical Academy River Bank, Chalakudy			
Programme:	B. PHARM	Sem.:	SECOND SEMESTER
Name of Course: (*Subject*)	HUMAN ANATOMY AND PHYSIOLOGY II	Course Code:	BP.201T
Teaching faculty of the course	SALU MARTIN		

Summary of the Lecture Plan

Topic	Description	Hours
Nervous system	Organization of nervous system	02
	Neuron, neuroglia classification and properties of nerve fibre, electrophysiology, action potential, nerve impulse, receptors	02
	Synapse	02
	Neurotransmitters	
	CNS: Meninges, ventricles of brain and cerebrospinal fluid, structure and functions of brain,	04
	Spinal cord	
Digestive system	Anatomy and physiology of GIT	02
	Anatomy and functions of accessory glands of GIT	02
	Digestion and absorption	
	Disorders of GIT	01
Energetics	Formation and role of ATP, Creatinine phosphate and BMR	01
Urinary system	Anatomy and physiology of urinary system	01
	Formation of urine	01
	Renin Angiotensin system – Juxtaglomerular apparatus - acid base Balance	01
	Micturition reflex	02
	Kidney disorders	
Respiratory system	Anatomy of respiratory organs and functions	01
	Mechanism / physiology of respiration and regulation of respiration	02
	Transport of respiratory gases	02
	Respiratory volumes and capacities	
	Resuscitation methods	01
Endocrine system	Classification of hormones,	01
	mechanism of hormone action	02
	structure and functions of pituitary gland, thyroid gland, parathyroid gland, adrenal gland, pancreas, pineal gland, thymus	06
	disorders	01

Reproductive system	Male and female reproductive system Physiology of menstruation Spermatogenesis & Oogenesis Pregnancy and maintenance and parturition	02 02 02
Introduction to genetics	Chromosomes, genes and DNA, protein synthesis, genetic pattern of inheritance	03

Major issues or Core aspects to be addressed/ covered:

Topic Title: Nervous system
Definition and classification of nervous system
Action potential, Synapse
Spinal cord: Structure & reflexes
Cranial nerves – Names and functions
Topic Title: Digestive system
Anatomy and physiology of GIT
Anatomy and functions of accessory glands of GIT
Digestion and absorption
Disorders of GIT
Topic Title: Energetics
Formation and role of ATP, Creatinine phosphate and BMR
Topic Title: Urinary system
Anatomy and physiology of urinary system
Formation of urine
Renin Angiotensin system – Juxtaglomerular apparatus - acid base Balance
Micturition reflex
Topic Title: Endocrine system
Classification of hormones
mechanism of hormone action
structure and functions of pituitary gland, thyroid gland, parathyroid gland, adrenal gland, pancreas, pineal gland, thymus
Disorders
Topic Title: Reproductive system a) Male and female reproductive system

b) Their hormones – Physiology of menstruation c) Spermatogenesis & Oogenesis
d) Pregnancy and maintenance and parturition
Topic Title: Introduction to genetics
a)chromosomes Genes and protein synthesis

Sample Questions

Topic Title: Nervous system
Functions of sympathetic nervous systems
Explain the Structure of Spinal cord:
names and functions Cranial nerves
Topic Title: Digestive system
Explain the anatomy of small intestine and stomach.
Structure and functions of liver.
Digestion and absorption of proteins
Structure and functions of pancreas
Topic Title: Energetics
Explain about the role of ATP, creatinine and BMR
Topic Title: Urinary system
Acid-base balance by kidney
Draw a neat labeled diagram of nephron and explain its parts. Explain in detail about the mechanism of urine formation.
Topic Title: Respiratory system
Write about Respiratory volumes
Mechanism of respiration
Topic Title: Endocrine system
List the anterior pituitary hormones and their functions
Describe the role of adrenal gland in salt, sugar and sex regulation.

Synthesis, storage, release and transport of thyroid hormones.
Topic Title: Reproductive system
Note on Oogenesis
Explain the anatomy of ovary and explain about various stages of menstrual cycle
Topic Title: Genetics
Explain about protein synthesis