SEMESTER II

LSM3214 HUMAN PHYSIOLOGY: HORMONES AND HEALTH

Prerequisite: LSM2101 and LSM3212. No co-reading of LSM3212 and LSM3214

Workload: 26 lecture hours + 14 tutorial hours + 10 hours assignment / CAs

This module covers several human physiological systems using hormonal control of homeostasis as a basis for understanding normal function and health. The student will be able to appreciate the interactions occurring amongst the endocrine, digestive, renal, and reproductive systems, and be able to relate them to the body's biological rhythms (or clocks), growth, responses to stress, and reproductive processes. Major Topics Covered: endocrine system, central endocrine glands, peripheral endocrine glands, digestive system, digestive processes, energy balance, urinary system, fluid processing, fluid balance, reproductive system, male reproductive physiology and female reproductive physiology.

S/N	Topics	Lecture hours
1.	**Endocrine System** • Overview of the central endocrine glands – pineal gland, hypothalamus, posterior pituitary gland, and anterior pituitary gland • Overview of the peripheral endocrine glands – thyroid gland and parathyroid glands (calcium metabolism)	6 TT
2.	**Reproductive System** • Male reproductive physiology • Female reproductive physiology • Pregnancy	4 TT
3.	**Digestive System** • Digestive processes – gastrointestinal tract, digestion and absorption, and gastrointestinal hormones • Energy balance • Appetite control	8 LCW
4.	**Renal System** • Fluid processing – anatomical structures, glomerular filtration, hormonal regulation, and urine formation and excretion • Fluid balance – body fluid compartments, hormonal control of volume and osmotic balance	8 TBC
		Total Lectures: 26h **Tutorials: 14h** **Others: 10h**
	Total hours:	50h

TEXT BOOK:

Sherwood Human Physiology - From Cells to Systems **8th Edition 2013**

MODE OF ASSESSMENT: 60% CAs / assignment, **40%** Final Exam

MODULE CO-ORDINATOR:

Dr Thai Tran (TT) (Tel: 6516-3663; Email: phstt@nus.edu.sg)

LECTURERS:

Dr Thai Tran (TT) (Tel: 6516-3663; Email: phstt@nus.edu.sg)
A/P Lee Chee Wee (LCW) (E-mail: leecw@tp.edu.sg)