

Discipline Specific Core Courses
BZO: C703 Endocrinology
(Credits: Theory-4)

SEMESTER – VII

Lectures: 60

Unit 1

Introduction to Endocrinology

Overview of the endocrine system, Classification of hormones and their synthesis, Transport of Hormones, Metabolism of hormones and their half-lives.

Unit 2

Neuroendocrinology

Structure of pineal gland, Secretions and their functions in biological rhythms and reproduction. Structure of hypothalamus, Hypothalamic nuclei and their functions, Regulation of neuroendocrine glands, Feedback mechanisms,

Unit 3

Pituitary Glands

Structure of pituitary gland, Hormones and their functions, Hypothalamo-hypophyseal portal system, Disorders of pituitary gland

Unit 4

Peripheral Endocrine Glands

Functional histology and Regulation of Thyroid, Parathyroid, Adrenal, Endocrine Pancreas, Gonads; Disorders related to hypersecretion and hyposecretion of hormones

Unit 5

Molecular Endocrinology

Hormone receptors, Transduction and regulation Hormone action at Molecular level:

Molecular mediators (GPCR Family; DAG-Calcium Signaling Systems; RTKs, Protein Kinases and Phosphatases in Cellular Signaling); Steroid Hormone Receptor Families.