



Tripura University

(A Central University)

Suryamaninagar

West Tripura

Syllabus for
Four Years Undergraduate Programme Subject:
Human Physiology
(As per NEP-2020)

4th Semester (Interdisciplinary)

Revised as on October, 2025

HP-4th Semester IDC
HP401ID
Total Marks-100 (IA=40+ESE=60)
Credit-4

Unit I- Endocrinology

1. Pituitary gland- Hormones secreted from anterior and posterior pituitary, physiological functions, hypo and hyperpituitarism.
2. Thyroid gland- Chemical nature and functions of thyroxine, goiter.
3. Adrenal gland- Functions of adrenal cortical and medullary hormones.
4. Endocrine pancreas- Insulin, glucagon, regulation of blood sugar.

Unit II- Reproductive physiology

1. Puberty and menarche- Physiology and hormonal changes.
2. Male reproductive physiology- Anatomical consideration, histology of testis, spermatogenesis- role of hormones.
3. Female reproductive physiology- Anatomical consideration, histology of ovary, oogenesis, menstrual cycle.
4. Fertilization, placenta, parturition, pregnancy test, infertility, IVF.

Unit III- Excretory system

1. Anatomy and histology of kidney, structure of nephron.
2. Basic mechanism of urine formation.
3. Production of hypertonic and hypotonic urine.
4. GFR- Factors affecting it, juxtaglomerular apparatus and extra excretory functions of kidney.

Unit IV- Environmental physiology & public health issues

1. Air, water and noise pollution- Different pollutants and their effects on environment and health, preventive measures.
2. Food additives and preservatives- effects on health, heavy metal, toxicity, causes and effects of radiation.
3. Causes and prevention of communicable diseases- Influenza, malaria, Dengue, Cholera, Hepatitis, HIV.
4. Vaccination, national immunization programmes, Neonatal and child care, basic health and hygiene education.