

PHY07: GENERAL PATHOLOGY 1 (NON-INFECTIOUS)

Description: This course introduces the student to current understanding of the basic scientific principles of causation, mechanisms and characteristics including manifestations of the major categories of non-infectious diseases and pathologies. The course will cover the processes and mechanisms and the structural and functional changes in cells, tissues, and organs that underlie human diseases.]

Objectives: By the end of the course, students should be able to:

- a) Describe and explain in own words the basic processes and mechanisms that result in disease.
- b) Classify the various causes of disease and use appropriate terminology to describe diseases.
- c) Describe the cellular responses to normal and abnormal stimuli and explain the concepts of homeostasis and steady state, cell adaptation, injury and death.
- d) Explain acute and chronic inflammation and describe the various stages and the causes of these processes.
- e) Describe healing of wounds, fractures and special tissues and factors that affect this process.
- f) Describe pathological processes involved in circulatory disturbances.
- g) Explain the concept of neoplasia, describe how tumours occur and distinguish between benign and malignant tumours.

Course Content:

- Characteristics and nomenclature of disease, cellular basis of disease.
- The causes of cell injury; cellular response to stimuli including homeostasis and steady state, cellular adaptations, reversible and irreversible (cell death) cell injury.
- Tissue response to injury to include; acute and chronic inflammation including beneficial and harmful effects; healing including concept of regeneration & repair; wound healing (Primary and Secondary); healing of fracture and special tissues; factors affecting healing. Circulatory disturbances will address hyperaemia and congestion; shock; oedema; thrombosis; embolism; ischaemia and infarction.

- Neoplasia, the definition, classification and nomenclature; general characteristics of neoplasms (benign and malignant); staging and grading of cancers (concept of tumour differentiation); metastases and routes of dissemination; carcinogenesis

GENERAL PATHOLOGY 2 (INFECTIOUS)

Description: This course explains the principles of disease transmission, common infectious diseases seen within Sierra Leone, and Physiotherapy Management Principles regarding these conditions.

Objectives By the end of the course, students should be able to:

- a) Describe the causes, symptoms and effects of common infectious diseases, including: Pneumonia, Diarrhoea (and related dehydration), Malaria, Tuberculosis, HIV, Polio, Ebola.
- b) Explain the role of Physiotherapy in the Acute and Long-term management of patients with the above-mentioned conditions.
- c) Observe the structure of each tissue.
- d) Relate the structure of each tissue observed with its function.

Course content: This course will cover in detail each of the diseases mentioned above, explaining for each:

- Mechanism of transmission / infection
- Signs and symptoms
- Effects
- Key components of assessment
- Key principles of rehabilitation (in both acute and chronic stages of disease)