

**Department of Education**  
**Revised Pre –Allied Health Course Outline**  
**Grades 10-12**

**Grade 10 Term One**

**Scope of “Allied Health”**

Basic definitions or functions of a variety of Allied Health Care professions including: Dental Hygienist, Radiologist, Radiographer, medical technician, medical librarian, physiotherapist, occupational therapist, pharmacist.

**History**

Earliest practices in health care

Development of health care over the years

**Health and Wellness**

- Definition of Health
- Models of health and illness including: Health –Illness Continuum Model, Health belief Model, Holistic Health Model

**Ethics and Values**

Definition of terms: Beneficence, nonmaleficence, justice, fidelity, code of ethics, accountability, responsibility, confidentiality, veracity, values.

Essential professional values: altruism, equality, aesthetics, freedom, dignity, justice, truth, confidentiality

**Vital Signs**

- Temperature: factors affecting body temperature, normal body temperature ranges, use of thermometer, types of thermometers, comparison of temperature measurement sites
- Pulse: factors affecting pulse rate, normal pulse range, location of pulse points in the body, character of pulse, taking of pulse
- Respiration: factors affecting respiration, normal respiratory rate

- Blood Pressure: elements of blood pressure, haemodynamic factors affecting blood pressure, factors influencing blood pressure, normal blood pressure range, hypertension, and hypotension, antihypertensive medications, blood pressure equipment

### **Physical Examination**

- Equipment used during examination. Physical and mental preparation for examination. Positions for examination. Examination of height, weight and circumference.

### **Medical Terminology**

- Explanation of the importance of the term used in the medical field to describe conditions, disorders and body parts
- Definitions of examples or word root, combining form, compound word, prefixes and suffixes
- Meaning of general medical term based on meaning and constituent word parts e.g. path/o - disease, ology – the study of

### **Basic Human Needs**

- Exercise, safety, hygiene, oxygenation, fluid, electrolyte, acid-base balances, sleep, nutrition, waste elimination, special needs clients

### **Health Care Delivery System**

Bahamian Health Care System. Levels of Health Care, clinics, doctors offices.

### **Measurement**

Metric system, household measurements, solutions, conversion within the system and conversion between systems

## **GRADE 10 TERM TWO**

### **Define Anatomy & Physiology**

#### **The Cell**

Definition, structure of the cell under the electron microscope.

Function of cell organelles.

Types of Tissue, common location and functions.

Growths and abnormal tissues. Terms including polyp, polypectomy, papiioma, hydro cyst

### **Structure of cell membrane,**

Body membranes: mucous, serous, cutaneous, and synovial

Diffusion

Osmosis

Exocytosis, endocytosis, phagocytosis

Genes, Chromosomes

Mitosis

Meiosis

### **Stem Cell Research**

Sources of stem cells

### **Inheritance**

Hereditary Diseases – definition – a disease caused by defective genes inherited by a child from one or both parents.

Sickle Cell anemia

Cystic Fibrosis

Tay - Sachs disease

Muscular Dystrophy

Inherited Disorder – Down's syndrome

## **GRADE 11 TERM ONE**

### **Integumentary System**

Gross structure of the skin, function of the skin, conditions of the skin

Terminology – Arrector pilimuscle, nerve fibres, sweat glands, adipose tissue, epidermis, Hair, hair follicle, dermis, melanin, keratin, black heads, moles freckles, sebaceous glands, cutaneous receptors

1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> degree burns – define and classify.

How to care for the skin.

## **INTRODUCTION TO KINESOLOGY**

### **Skeletal System**

Functions of the skeletal systems, structure of the vertebral structure

Structure of the Skeleton

Axial Skeleton (skull, rib cage, vertebral column, pelvic and pectoral girdles)

Appendicular Skeleton (limbs)

Names of major bones

Bones (histology, morphology)

Keeping bones healthy

Disorders of bones

Orthopaedics

### **Joints**

Definition

Classification of types of joints

Ligaments and tendons

Structure of a joint

Disorders of joints

## **Muscles**

Structure – microscopic anatomy of smooth and skeletal muscle

Differences between smooth and striated muscles

Function of muscles – identify trunk muscles

Keeping muscles healthy

Names and location of major muscles

Antagonistic muscles, location and operation

Disorders of muscles

Physiotherapist

## **Skeleto-Muscular Systems**

Movement

Exercise

Sports injuries

Feet disorders; Bad posture and its effects

## **GRADE 11 TERM 2**

### **Nutrition and Metabolism**

Composition and types of nutrients, absorption and the use of nutrients by the body.

Sources of nutrients.

Diseases and conditions related to insufficient and excessive intake of nutrients, including obesity, marasmus, kwashiorkor, goiter, rickets, anaemia, night blindness, beriberi, pellagra, hypertension, hypotension, diabetes mellitus, and high cholesterol

BMI Calculations

### **Teeth**

Structure and function of teeth. Kinds of teeth, sets of teeth. Structure of oral cavity. Tooth decay and gum disease. Dental problems and care.

### **Digestion and Absorption**

Structure of digestive system, detailed explanation of digestion, structure of the stomach, intestines and villi. Problems of the digestive system. E.g. peptic ulcers, constipation, diarrhea and gastritis

## **Blood**

Composition – blood bank (transfusions of plasma or whole blood)

Components – appearance, function

Blood groups, transfusions (investigations with assimilations)

Blood Disorders

## **Heart**

Cardiac muscle

Structure

Function

Diastolic and systolic pressure

Heart disorders ECG

## **Blood vessels**

Capillaries, arterioles, arteries, venules, veins, structure and function

Cross section of vessels

Names of major arteries and veins

Double circulation

Venipuncture, arterioblood gas visual difference with colour

## **Lymphatic System**

Lymph nodes Lymph

Function of Lymphatic System

Operation of Lymphatic System

Disorders of the Lymphatic System

## **GRADE 12 TERM ONE**

### **Pathogens**

Diseases their transmission and control

Diseases cause by lifestyle

### **Infection Control –**

Agents of infection. Environmental requirement for agents' survival. Portals of entrance and exits for infectious agents. Host susceptibility. Defense against infection. Control or elimination of infectious agents. Hand washing, importance and proper procedure.

Immunity (natural and artificial)

Antibody production and vaccination

### **Infectious Diseases - Pathogens**

Viruses: structure, classification, life cycle

Bacteria: structure, classification, life cycle

Fungi: structure, life cycle

Protozoa: classification

Worms: classification, (life cycle)

Classification of diseases (infectious, deficiency, degenerative, inherited, mental)

Plates and incubation (door handles, shopping cart handles)

### **Diseases their transmission and control**

Airborne diseases

Waterborne diseases

Food-borne diseases

Insect-borne diseases

Diseases spread by contact

### **Endocrine System**

Importance of the Endocrine System, definition of hormones,

General role of hormones in the body, diagram of the endocrine system,

Amino acid based vs. steroid based hormones.

Functions of particular hormones, identification of major endocrine organs and hormones.

## **Grade 12 TERM TWO**

### **Nervous system**

Two principal divisions of the nervous system, major functions of the nervous system, structure and function of nervous tissues and cells, reflex action

Structure of the Brain. Function of the brain's various parts; Protection of the CNS; dysfunctions of the brain

Structure and function of the spinal cord, PNS structure and nerve, cranial nerves, function and location.

### **Introduction**

Definition of pharmacology, pharmacy, role of pharmacist, pharmacy technician, administration of medication

### **Drugs**

Definition of drugs, distinction between "over the counter", prescription drugs and legal and illegal drugs. Classification of drugs e.g. stimulants, depressants, analgesics, hallucinogens.

Definition and elements of a drug history i.e. indication, dosage, contra-indication, side effects, active ingredients, non-active ingredients, warning

### **Types of medication action**

Explanation of effects of medication action i.e. therapeutic, side effects, adverse effects, toxic effects, idiosyncratic reactions, allergic reactions, medication interaction, medication dose responses

### **Routes of administration**

Definition, description, advantages and disadvantages of the various routes of medication administration i.e. oral, parenteral, topical inhalation

### **Human Development - Birth**

Prenatal Care

Birth

Postnatal Care Newborn babies

Basic needs of a child

## **Growth and Development**

Growth rates

Factors affecting growth

0-18 months development

Development 2 – 5 years

Proportion changes with growth

Growth of skeleton

Aging and eugenics