DEPARTMENT OF EDUCATION

Revised Pre –Allied Health Course Outline

GRADES: 10 – 12

2023-2024

Revised Pre –Allied Health Course Outline

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, nonmalefience, 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 edications, 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

1st, 2nd and 3rd 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' 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