

COURSE HES1010: HEALTH & WELLNESS FUNDAMENTALS

Level: Introductory

Prerequisite: None

Description: Students identify the determinants of good health and examine how these determinants affect personal wellness. Students gain an appreciation for the importance of an active living lifestyle and develop an understanding of the basic structure and function of the human body using medical terminology. Students demonstrate safety strategies to prevent infection from blood borne pathogens in health care and recreation settings and examine other basic safety and reporting protocols for these settings.

Parameters: No specialized equipment or facilities.

Outcomes: The student will:

1. evaluate determinants of good health and describe how they affect all dimensions of wellness

- 1.1 define terms related to health and wellness, including:
 - 1.1.1 lifestyle
 - 1.1.2 physical activity
 - 1.1.3 quality of life
 - 1.1.4 active living
 - 1.1.5 physical fitness
- 1.2 research recognized international and national definitions of health and wellness
- 1.3 develop a personal definition of health and wellness, including a description of how cultural factors, gender, and social roles that influence beliefs
- 1.4 describe the determinants of health and wellness
- 1.5 justify Health Canada's ranking of the twelve determinants of health
- 1.6 describe various social and cultural differences that can affect health and wellness, including
 - 1.6.1 factors related to gender
 - 1.6.2 factors related to class and social roles
 - 1.6.3 factors related to geography
 - 1.6.4 factors related to available sources of food and water
- 1.7 evaluate the use and misuse of supplementation for body image and performance enhancement related to gender and sport
- 1.8 justify adopting strategies to support achievement of optimal health and wellness, including
 - 1.8.1 practice cleanliness
 - 1.8.2 attend regular dental and medical checkups
 - 1.8.3 seek knowledge about health, wellness and the human body
 - 1.8.4 develop discernment when reviewing information for accuracy
 - 1.8.5 develop a support system for all areas of wellness
 - 1.8.6 take personal responsibility for making decisions that promote health and wellness

2. describe basic principles of movement that contribute to health and wellness

- 2.1 locate the major skeletal muscles of the body
 - 2.1.1 muscles of the upper extremities
 - 2.1.2 muscles of the trunk

- 2.1.3 muscles of the lower extremities
- 2.2 explain how movement occurs
- 2.3 demonstrate types of movement and joint action, including
 - 2.3.1 angular (flexion, extension, abduction, adduction)
 - 2.3.2 circular (circumduction, rotation)
 - 2.3.3 special to forearm (supination, pronation)
 - 2.3.4 special at ankle (inversion, eversion, dorsiflexion, plantar flexion)
 - 2.3.5 special at the shoulder (elevation, depression, protraction and retraction)
- 2.4 justify the effect of an active lifestyle on health and wellness
- 3. demonstrate a basic understanding of the anatomy and physiology of body systems and associated pathologies and treatments**
 - 3.1 identify common prefixes and suffixes related to anatomy, physiology, pathology and the terminology describing body systems
 - 3.2 define the terms anatomy, physiology, pathology and homeostasis, including directional terms and planes of division
 - 3.3 outline the organization of the body from chemicals to the whole body, including identification of the role of cells, tissues, organs and body cavities
 - 3.4 identify the eleven systems of the human body using medical terminology
 - 3.5 explain the interrelationship between various body systems
 - 3.6 compare the processes of negative and positive feedback in maintaining homeostasis
 - 3.7 define terms and concepts related to disease and treatment of disease, including
 - 3.7.1 signs of disease
 - 3.7.2 symptoms of disease
 - 3.7.3 syndromes
 - 3.7.4 prognosis
 - 3.7.5 therapy
 - 3.7.6 complementary and alternative medicine
 - 3.7.7 integrative health
 - 3.7.8 preventative medicine
 - 3.7.9 public health
 - 3.8 describe basic safety precautions for the prevention of communicable diseases related to
 - 3.8.1 health care workers
 - 3.8.2 community recreation leaders
 - 3.8.3 sports
 - 3.8.4 travel
- 4. perform effective and appropriate hand-washing techniques**
 - 4.1 explain the benefits of hand washing
 - 4.2 identify illnesses caused by inadequate hand hygiene
 - 4.3 describe the steps in proper hand washing
 - 4.4 describe the proper use of hand sanitizers
 - 4.5 justify critical times for hand washing to occur
 - 4.6 demonstrate effective hand-washing techniques
- 5. demonstrate safety precautions specifically related to blood borne pathogens**
 - 5.1 compare the pathology and treatment of Hepatitis B, Hepatitis C and HIV
 - 5.1.1 methods of transmission
 - 5.1.2 risks of infection related to occupation, travel, and/or contact with infected individuals in the community
 - 5.1.3 causes and complications of infection
 - 5.1.4 signs and symptoms at all phases of the disease process
 - 5.1.5 treatment
 - 5.1.6 prognosis

- 5.1.7 rates of incidence and prevalence
- 5.2 identify specific occupations and activities that have increased risk of transmission particular to health care, recreation, and sport
- 5.3 justify the use of a Standard Precautions protocol to prevent the contraction of blood borne pathogens
- 5.4 describe common engineering controls and work practice controls for blood borne pathogens
- 5.5 demonstrate the correct use of personal protective equipment, including the removal and disposal of equipment after use
- 5.6 describe considerations for vaccination against Hepatitis B
- 5.7 describe screening tests available for Hepatitis C and HIV
- 5.8 describe the components of a Workplace Exposure Plan for Blood Borne pathogens
- 5.9 demonstrate strategies for immediate first aid and reporting following an exposure to blood borne pathogens
- 5.10 describe common workplace procedures for labeling, containing and handling regulated waste
- 5.11 identify labels that communicate the hazard of blood borne pathogens
- 6. summarize considerations for reporting child abuse**
 - 6.1.1 summarize signs and symptoms of four types of abuse including physical, emotional, neglect, sexual abuse
 - 6.1.2 state the duty to report obligation according to the Child Welfare Act
 - 6.1.3 identify appropriate methods of reporting suspicions of abuse in a variety of settings
 - 6.1.4 recognize limitations of personal skill to deal with issues related to abuse or violence
- 7. demonstrate basic competencies**
 - 7.1 demonstrate fundamental skills to:
 - 7.1.1 communicate
 - 7.1.2 manage information
 - 7.1.3 use numbers
 - 7.1.4 think and solve problems
 - 7.2 demonstrate personal management skills to:
 - 7.2.1 demonstrate positive attitudes and behaviours
 - 7.2.2 be responsible
 - 7.2.3 be adaptable
 - 7.2.4 learn continuously
 - 7.2.5 work safely
 - 7.3 demonstrate teamwork skills to:
 - 7.3.1 work with others
 - 7.3.2 participate in projects and tasks
- 8. make personal connections to the cluster content and processes to inform possible pathway choices**
 - 8.1 complete/update a personal inventory; e.g., interests, values, beliefs, resources, prior learning and experiences
 - 8.2 create a connection between a personal inventory and occupational choices

COURSE HES1020: NUTRITION & WELLNESS

Level: Introductory

Prerequisite: None

Description: Students learn the importance of nutrition and hydration for the promotion and maintenance of physical, emotional and social health and wellness throughout life. Students evaluate food and supplement choices, the effects of activity on nutritional requirements, and labels to improve daily nutritional intake at all ages.

Supporting Course: HES1050: Digestive System
HES1010: Health & Wellness Fundamentals

Outcomes: The student will:

1. analyze food choices and their effect on health and wellness

- 1.1 describe basic body composition, including a differentiation between overweight and overfat
- 1.2 differentiate between macronutrients and micronutrients and their role in promoting and maintaining health and wellness
- 1.3 recommend healthy food choices from the Canada Food Guide for various ages and levels of activity
- 1.4 summarize cultural, psychological and social factors that influence food choices
- 1.5 differentiate between the sensation of hunger and appetite

2. explain the effects of hydration on health and wellness

- 2.1 describe the role of water in the body
- 2.2 describe the function of the thirst mechanism at various ages
- 2.3 recognize signs and symptoms of dehydration
- 2.4 describe the impact of dehydration on physical activity
- 2.5 summarize steps to prevent dehydration during rest and physical activity

3. evaluate strategies for achieving optimal nutrition at various stages of life

- 3.1 explain metabolism and metabolic rate and their relationship to the utilization of nutrients during periods of rest and exercise
- 3.2 differentiate the energy requirements for different stages of life
- 3.3 describe the energy systems required for different levels of activity
- 3.4 describe the basic nutritional requirements for various stages of physical activity
- 3.5 describe the importance balanced nutrition in the promotion and maintenance of health and wellness, including
 - 3.5.1 high fiber content
 - 3.5.2 fat content
 - 3.5.3 cholesterol content
- 3.6 evaluate snacks and meal plans for achieving optimal nutrition within various contexts
- 3.7 identify the safe and effective uses of common supplements for micro and macronutrients
- 3.8 summarize resources available to optimize nutritional choices

4. evaluate nutritional information and misinformation

- 4.1 evaluate sources of reliable nutritional information about food
 - 4.1.1 organic versus inorganic food sources
 - 4.1.2 safety and security of food sources

- 4.2 evaluate sources of reliable nutritional information about vitamin and mineral supplements
 - 4.2.1 summarize the key findings
 - 4.2.2 differentiate between water-soluble and fat-soluble vitamins
- 4.3 interpret food labels
- 4.4 evaluate sources of reliable nutritional information about protein supplementation
 - 4.4.1 summarize the key findings
- 4.5 compare concepts of maintaining a healthy body weight versus dieting to manage weight
 - 4.5.1 explain the energy balance equation
 - 4.5.2 examine common health issues related to weight
- 4.6 identify different cultural perspectives on nutritional intake and healthy body weights

5. demonstrate basic competencies

- 5.1 demonstrate fundamental skills to:
 - 5.1.1 communicate
 - 5.1.2 manage information
 - 5.1.3 use numbers
 - 5.1.4 think and solve problems
- 5.2 demonstrate personal management skills to:
 - 5.2.1 demonstrate positive attitudes and behaviours
 - 5.2.2 be responsible
 - 5.2.3 be adaptable
 - 5.2.4 learn continuously
 - 5.2.5 work safely
- 5.3 demonstrate teamwork skills to:
 - 5.3.1 work with others
 - 5.3.2 participate in projects and tasks

6. make personal connections to the cluster content and processes to inform possible pathway choices

- 6.1 complete/update a personal inventory; e.g., interests, values, beliefs, resources, prior learning and experiences
- 6.2 create a connection between a personal inventory and occupational choices

COURSE HES1030: NATURE & WELLNESS

Level: Introductory

Prerequisite: None

Description: Students explore the benefits of relationships between plants, animals, and the environment as applied to the health and wellness of people. Students evaluate how nature affects wellness in individuals and communities. Students plan and modify public and personal spaces to enhance personal wellness using elements of nature. Students reflect on the personal implications for wellness in relation to their environment.

Parameters: No specialized equipment or facilities

Note: This course includes concepts that may be particularly sensitive to students, parents or community members.

Supporting Course: HES1010: Health & Wellness Fundamentals
HES1100: Communication Skills for Helping Relationships

Outcomes: The student will:

1. analyze the historical roles and relationships of plants and animals to people and communities

- 1.1. explain the historical relationships between
 - 1.1.1. plants and people
 - 1.1.2. animals and people
 - 1.1.3. people and their environment
- 1.2. describe varying cultural perspectives on plants, animals and the environment, based on beliefs and practices
- 1.3. describe the present and changing roles, relationships, and perspectives of
 - 1.3.1. plants in society
 - 1.3.2. animals in society
 - 1.3.3. environment in society
- 1.4. describe the impact of technological development on the relationship of plants and animals to individuals and communities
- 1.5. summarize the relationship of individuals and animals as an indicator of mental health and wellness

2. evaluate how nature affects wellness in individuals and communities using case studies and personal experiences

- 2.1. define nature
- 2.2. define environment
- 2.3. describe how an environment lacking elements of nature can affect human health and wellness, including physical, emotional, cognitive, social and spiritual determinants of health and wellness
- 2.4. describe how an environment enriched with elements of nature can affect human wellness, including physical, emotional, cognitive, social and spiritual determinants of health and wellness

- 2.5. describe the potential benefits of interacting with a variety of aspects of nature including plants, animals, and the environment
 - 2.5.1. physical and physiological benefits
 - 2.5.2. emotional and spiritual benefits
 - 2.5.3. cognitive benefits
 - 2.5.4. psychosocial benefits
- 3. evaluate various shared spaces and activities of daily living to enhance wellness by introducing natural elements using multiple case studies and appropriate personal experiences**
 - 3.1. assess a variety of spaces and activities of daily living in those spaces for elements of nature, including
 - 3.1.1. school spaces
 - 3.1.2. office spaces
 - 3.1.3. homes
 - 3.1.4. hospitals
 - 3.1.5. extended care centre facilities
 - 3.1.6. mental health facilities
 - 3.1.7. correction facilities
 - 3.1.10 communities spaces
 - 3.2. recommend modifications to add elements of nature to a variety of spaces and activities of daily living to improve health and wellness
 - 3.3. outline community resources aimed to help modify shared spaces and activities of daily living to enhance wellness using natural elements
 - 3.4. outline community resources aimed to encourage positive relationships between people and animals
 - 3.5. describe community organizations that train working animals for therapeutic and practical roles in society
 - 3.6. outline community resources for supporting the relationship between plants and people and communities
- 4. modify a personal space to enhance wellness using natural elements**
 - 4.1. assess the potential benefits of adding elements of nature to a personal space or daily routine, including benefits to physical, emotional, cognitive, spiritual and social health and wellness
 - 4.2. justify the choice of a space to modify based on predicted outcomes of modification to improve health and wellness
 - 4.3. write goals for modifying the space
 - 4.4. plan to add elements of nature to the space in stages, including
 - 4.4.1. modifications to the physical environment
 - 4.4.2. horticultural elements
 - 4.4.3. animals
 - 4.5. modify a personal space based on a staged plan
 - 4.5.1. set goals for modifying the personal space
 - 4.5.2. predict how the modifications will affect personal wellness
 - 4.6. explain considerations to add elements of nature to a personal space in stages, including
 - 4.6.1. safety
 - 4.6.2. budget
 - 4.6.3. availability of plants and animals
 - 4.6.4. resources to assist modification
 - 4.7. keep a journal of changes and personal reflections
 - 4.8. evaluate the effects of modifying a personal space on personal health and wellness
 - 4.8.1. describe the affects of modifying the personal space in relation to the goals set in the planning phase

- 4.8.2. evaluate the significance of modifying the personal space in relation to how nature affected personal wellness, considering the markers for human wellness

5. demonstrate basic competencies

5.1. demonstrate fundamental skills to:

- 5.1.1. communicate
- 5.1.2. manage information
- 5.1.3. use numbers
- 5.1.4. think and solve problems

5.2. demonstrate personal management skills to:

- 5.2.1. demonstrate positive attitudes and behaviours
- 5.2.2. be responsible
- 5.2.3. be adaptable
- 5.2.4. learn continuously
- 5.2.5. work safely

5.3. demonstrate teamwork skills to:

- 5.3.1. work with others
- 5.3.2. participate in projects and tasks

6. make personal connections to the cluster content and processes to inform possible pathway choices

- 6.1. complete/update a personal inventory e.g.: interests, values, beliefs, resources, prior learning and experiences
- 6.2. create a connection between personal inventory and occupational choices

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COURSE HES1040: MUSCULOSKELETAL SYSTEM 1

Level: Introductory

Prerequisite: HES1010: Health & Wellness Fundamentals

Description: Students acquire the knowledge and skills necessary for the promotion and maintenance of a healthy musculoskeletal system. Students study the pathology of musculoskeletal system conditions and gain an appreciation for practicing a healthy lifestyle as it pertains to the individual, family, peers and community.

Outcomes: The student will:

1. explain the basic anatomy and physiology of the skeletal system

1.1 define common terms related to the skeletal system using a list of prefixes, roots and suffixes common to skeletal system terminology

1.2 name and locate bones in the skeletal system

1.2.1 state the number of bones in the body, axial and appendicular skeletons

1.2.2 the main bones in the axial skeleton, including framework for the

1.2.2.1 cranium

1.2.2.2 bones of the infant skull

1.2.2.3 face

1.2.2.4 vertebral column

1.2.2.5 thorax

1.2.3 the main bones of the appendicular skeleton, including framework for the

1.2.3.1 shoulder girdle

1.2.3.2 arms and hands

1.2.3.3 pelvis

1.2.3.4 legs, ankles, and feet

1.2.3.5 differentiate between the male and female pelvis

1.3 describe, using examples, the functions of the skeletal system

1.3.1 serve as a frame for the body

1.3.2 protect organs

1.3.3 serve as levers for movement

1.3.4 form blood cells

1.3.5 store minerals

1.4 categorize bones according to shape: short, long, irregular and flat bones

1.5 identify the appearance and function of bone markings, including projections and depressions

1.6 describe the structure and significance of long bones

1.7 differentiate between compact and spongy bone tissue

1.8 differentiate between red and yellow bone marrow

1.9 identify location and function of bones membranes (periosteum and endosteum)

1.10 describe the process of bone growth and repair (remodelling)

1.10.1 identify bone cells and their function

1.10.2 describe the process of bone growth in long bones

2. explain the basic anatomy and functions of the muscular system

2.1 describe how muscles are named

2.1.1 location for a nearby bone

2.1.2 location for position

2.1.3 size

2.1.4 shape

- 2.1.5 direction of fibers
- 2.1.6 number of heads
- 2.1.7 action
- 2.2 differentiate between smooth muscle, cardiac muscle and skeletal muscle considering
 - 2.2.1 location
 - 2.2.2 characteristics of cells
 - 2.2.3 control
 - 2.2.4 action
- 2.3 describe the functions of the muscular system
 - 2.3.1 movement of the skeleton
 - 2.3.2 maintenance of posture
 - 2.3.3 generation of heat
- 2.4 define the terms "origin" and "insertion"
- 2.5 describe the location and function of additional soft tissues and organs related to the major skeletal muscles of the body
 - 2.5.1 tendons
 - 2.5.2 fascia
 - 2.5.3 cartilage
 - 2.5.4 ligaments
 - 2.5.5 skin
- 3. explain the basic anatomy and function of muscles and joint structures**
 - 3.1 categorize joints in the body into three categories: immovable, partially moveable, and freely moveable
 - 3.2 describe the anatomical structure of joints and surrounding structures that affect the function of a joint
 - 3.3 describe the anatomy of synovial joints, comparing those with cartilage pad and those without cartilage pads
 - 3.4 categorize synovial joints into gliding, hinge, pivot condyloid, saddle and ball and socket joints
 - 3.5 differentiate between stable and unstable joints in the body
 - 3.6 summarize proprioception
 - 3.7 identify three factors that affect the amount and direction of movement in a joint
 - 3.8 explain basic movement patterns, incorporating the concept of antagonist, agonist, and synergistic muscle actions involving the major joints
 - 3.9 summarize active, resisted and passive range of motion
- 4. evaluate factors that contribute to the promotion and maintenance of a healthy musculoskeletal system**
 - 4.1 summarize the role of the musculoskeletal system in achieving and maintaining wellness
 - 4.2 recognize the effects of aging on the function of the musculoskeletal system
 - 4.3 predict the effect of lifestyle choices on the wellness of the musculoskeletal system, including choices related to cultural beliefs and practices
 - 4.4 recommend preventative lifestyle choices required for musculoskeletal system wellness
 - 4.4.1 describe the relationship of active living to musculoskeletal health
 - 4.4.2 describe the relationship of proper nutrition to musculoskeletal health
- 5. explain the basic pathology and treatment of conditions of the musculoskeletal system**
 - 5.1 summarize the signs and symptoms of common conditions of the musculoskeletal system, including conditions caused by
 - 5.1.1 metabolic and genetic disorders
 - 5.1.2 infections

- 5.1.3 structural disorders, including spinal, back, and joint disorders
- 5.1.4 fractures and injuries
- 5.1.5 spasms, including spasms of smooth and skeletal muscle
- 5.1.6 overuse or underuse, including strains and sprains
- 5.2 describe diagnostic procedures available for these conditions
- 5.3 summarize medical and integrative health treatments available for these conditions
- 5.4 describe the impact of pathologies of the musculoskeletal system on other body systems
- 5.5 summarize the probable social, emotional and economic impact of these conditions on the individual, family, peers and the community
- 5.6 summarize community resources available for people living with musculoskeletal system pathologies

6. demonstrate basic competencies

- 6.1 demonstrate fundamental skills to:
 - 6.1.1 communicate
 - 6.1.2 manage information
 - 6.1.3 use numbers
 - 6.1.4 think and solve problems
- 6.2 demonstrate personal management skills to:
 - 6.2.1 demonstrate positive attitudes and behaviours
 - 6.2.2 be responsible
 - 6.2.3 be adaptable
 - 6.2.4 learn continuously
 - 6.2.5 work safely
- 6.3 demonstrate teamwork skills to:
 - 6.3.1 work with others
 - 6.3.2 participate in projects and tasks

7. make personal connections to the cluster content and processes to inform possible pathway choices

- 7.1 complete/update a personal inventory; e.g., interests, values, beliefs, resources, prior learning and experiences
- 7.2 create a connection between a personal inventory and occupational choices

COURSE HES1050: DIGESTIVE SYSTEM

Level: Introductory

Prerequisite: HES1010: Health & Wellness Fundamentals

Description: Students acquire the knowledge and skills necessary for achieving and maintaining digestive health. Students gain an appreciation for practicing a healthy lifestyle as it pertains to the individual, family, peers and community.

Supporting Courses: HES1020: Nutrition & Wellness
HES2100: Nutrition for Recreation Activities and Sport

Outcomes: The student will:

1. explain the basic anatomy and functions of the digestive system

- 1.1 define common terms related to digestive system using a list of prefixes, roots and suffixes
- 1.2 name and locate the organs and structures of the digestive tract, including
 - 1.2.1 mouth and tongue and teeth
 - 1.2.2 pharynx and esophagus
 - 1.2.3 stomach
 - 1.2.4 small intestine, including the duodenum, jejunum, and ileum
 - 1.2.5 large intestine, including the cecum, appendix, ascending, descending and sigmoid colons, rectum and anus
- 1.3 name and locate the accessory organs of digestive system
 - 1.3.1 salivary glands
 - 1.3.2 liver
 - 1.3.3 gallbladder
 - 1.3.4 pancreas
- 1.4 locate important sphincters in the digestive system
- 1.5 define the processes of digestion, absorption and elimination
- 1.6 categorize the organs of the digestive tract and accessory organs according to function in the processes of digestion, absorption and elimination
- 1.7 differentiate between mechanical and chemical digestion

2. analyze the processes of digestion and elimination

- 2.1 describe the role of enzymes in the process of digestion
- 2.2 identify the products of digestion related to enzymes (sugars, peptides, glycerol and fatty acids)
- 2.3 describe the role of water in the process of digestion
- 2.4 explain the process of digestion in each of the organs of the digestive tract from ingestion through to elimination
 - 2.4.1 explain the function of each organ
 - 2.4.2 identify the nutrients digested in each organ
 - 2.4.3 explain the action of secretions and enzymes in each organ
- 2.5 explain the process of absorption
 - 2.5.1 describe how nutrients are moved into the circulatory system
 - 2.5.2 explain the importance of surface area and the folding of membranes in the small intestine
 - 2.5.3 explain the absorption of simple sugars
 - 2.5.4 explain the absorption of fats
 - 2.5.5 explain the absorption of vitamins and minerals

- 2.5.6 explain the absorption of amino acids
- 2.6 explain control mechanisms for the process of digestion
 - 2.6.1 describe the importance of controlling rate of movement
 - 2.6.2 describe the importance of controlling secretions in each organ
 - 2.6.3 identify the roles of the parasympathetic and sympathetic nervous system
 - 2.6.4 summarize hormonal controls in the digestive system
 - 2.6.5 differentiate between hunger and appetite
- 2.7 describe the process of elimination and detoxification in the liver
- 2.8 describe the process of elimination in the large intestine and factors that inhibit or alter regular elimination
- 3. analyze nutrition at the cellular level**
 - 3.1 define metabolism and metabolic rate
 - 3.2 state the difference between catabolism and anabolism
 - 3.3 describe factors that affect metabolic rate
 - 3.4 define cellular respiration
 - 3.5 recognize glucose as the main source of energy at the cellular level
 - 3.6 explain the action of insulin
 - 3.7 differentiate between type 1 and type 2 diabetes
 - 3.7.1 age of onset
 - 3.7.2 recent trends
- 4. evaluate factors that contribute to the promotion and maintenance of a healthy digestive system using case studies**
 - 4.1 summarize the role of the digestive system in achieving and maintaining wellness
 - 4.2 list and describe the role of the major nutrients
 - 4.3 explain the role of hydration
 - 4.4 summarize the effects of aging on the function of the digestive system
 - 4.5 predict the effect of lifestyle choices on the wellness of the digestive system, including choices related to cultural beliefs and practices
 - 4.6 recommend preventative lifestyle choices required for digestive wellness
 - 4.6.1 describe the relationship of active living to digestive health
 - 4.6.2 describe the relationship of proper nutrition to digestive health
- 5. explain the basic pathology and treatment of digestive conditions using case studies**
 - 5.1 summarize the signs and symptoms of common digestive conditions
 - 5.2 summarize causes of digestive system pathologies
 - 5.3 describe diagnostic procedures available for these conditions
 - 5.4 summarize medical and integrative health treatments available for conditions of the digestive system
 - 5.5 summarize the role of dietary management for the treatment and management of various conditions
 - 5.6 describe the impact of pathologies of the digestive system on other body systems
 - 5.7 explain the social, emotional and economic impact of these conditions on the individual, family, peers and the community
 - 5.8 summarize community resources available for people living with digestive system pathologies
- 6. demonstrate basic competencies**
 - 6.1 demonstrate fundamental skills to:
 - 6.1.1 communicate
 - 6.1.2 manage information
 - 6.1.3 use numbers
 - 6.1.4 think and solve problems
 - 6.2 demonstrate personal management skills to:
 - 6.2.1 demonstrate positive attitudes and behaviours

- 6.2.2 be responsible
- 6.2.3 be adaptable
- 6.2.4 learn continuously
- 6.2.5 work safely
- 6.3 demonstrate teamwork skills to:
 - 6.3.1 work with others
 - 6.3.2 participate in projects and tasks

7. make personal connections to the cluster content and processes to inform possible pathway choices

- 7.1 complete/update a personal inventory; e.g., interests, values, beliefs, resources, prior learning and experiences
- 7.2 create a connection between a personal inventory and occupational choices

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COURSE HES1060: RESPIRATORY SYSTEM

Level: Introductory

Prerequisite: HES1010: Health & Wellness Fundamentals

Description: Students acquire the knowledge and skills necessary for achieving and maintaining respiratory health. Students study pathologies of the respiratory system and gain an appreciation for practicing a healthy lifestyle as it pertains to the individual, family, peers and community.

Supporting Course: HES1070: Cardiovascular System
HES2010: First Aid/CPR with AED

Outcomes: The student will:

1. explain the anatomy and function of the respiratory system

- 1.1 define common terms related to the respiratory system using a list of prefixes, roots and suffixes
- 1.2 name and locate the organs and structures of the respiratory system
 - 1.2.1 nasal cavities
 - 1.2.2 pharynx
 - 1.2.3 Larynx
 - 1.2.4 trachea
 - 1.2.5 bronchi
 - 1.2.6 lungs
 - 1.2.7 pleura and mediastinum
 - 1.2.8 alveoli
 - 1.2.9 diaphragm
 - 1.2.10 intercostal muscles
- 1.3 define respiration
- 1.4 explain the three phases of respiration
- 1.5 summarize the function of the organs and structures of the respiratory system
- 1.6 explain the mechanism of pulmonary ventilation
 - 1.6.1.1 inhalation and compliance
 - 1.6.1.2 exhalation
- 1.7 assess lung volumes and their associated values by measuring them using a spirometer and reviewing case studies
- 1.8 explain the process of gas exchange in lungs and tissues, including role of blood
- 1.9 explain the transport of oxygen and carbon dioxide, including the role of blood
 - 1.9.1.1 importance of hemoglobin
 - 1.9.1.2 process of diffusion at cellular level
 - 1.9.1.3 interpret basic blood gas values
 - 1.9.1.4 regulation of pH
- 1.10 explain the process of respiratory regulation, both nervous control and chemical control
 - 1.10.1 central chemoreceptors
 - 1.10.2 peripheral chemoreceptors
- 1.11 analyze factors that alter respiratory rate and volume, including causes, signs and symptoms
 - 1.11.1 differentiate between hyperventilation and hypoventilation
 - 1.11.2 define a normal breathing pattern
 - 1.11.3 recognize types of altered breathing

- 1.11.4 describe results of altered breathing
- 2. evaluate factors that contribute to the promotion and maintenance of a healthy respiratory system using case studies**
- 2.1 summarize the role of the respiratory system in achieving and maintaining wellness
 - 2.2 explain the effects of aging on the function of the respiratory system
 - 2.3 predict the effect of lifestyle choices on wellness of the respiratory system, including choices related to cultural beliefs and practices
 - 2.4 recommend preventative lifestyle choices required for respiratory wellness
 - 2.4.1 describe the relationship of active living to respiratory health
 - 2.4.2 describe the relationship of proper nutrition to respiratory health
- 3. explain the basic pathology and treatment of respiratory conditions, using case studies**
- 3.1 summarize the signs and symptoms of common respiratory conditions
 - 3.2 summarize causes of respiratory system pathologies
 - 3.3 describe diagnostic procedures available for conditions of the respiratory system
 - 3.4 summarize medical and integrative health treatments available for conditions of the respiratory system
 - 3.5 describe the impact of pathologies of the respiratory system on other body systems
 - 3.6 explain the social, emotional and economic impact of respiratory conditions on the individual, family, peers and the community
 - 3.7 summarize community resources available for people living with respiratory system pathologies
- 4. demonstrate basic competencies**
- 4.1 demonstrate fundamental skills to:
 - 4.1.1 communicate
 - 4.1.2 manage information
 - 4.1.3 use numbers
 - 4.1.4 think and solve problems
 - 4.2 demonstrate personal management skills to:
 - 4.2.1 demonstrate positive attitudes and behaviours
 - 4.2.2 be responsible
 - 4.2.3 be adaptable
 - 4.2.4 learn continuously
 - 4.2.5 work safely
 - 4.3 demonstrate teamwork skills to:
 - 4.3.1 work with others
 - 4.3.2 participate in projects and tasks
- 5. make personal connections to the cluster content and processes to inform possible pathway choices**
- 5.1 complete/update a personal inventory; e.g., interests, values, beliefs, resources, prior learning and experiences
 - 5.2 create a connection between a personal inventory and occupational choices

COURSE HES1070: CARDIOVASCULAR SYSTEM

Level: Introductory

Prerequisite: HES1010: Health & Wellness Fundamentals

Description: Students acquire the knowledge and skills necessary for the promotion and maintenance of a healthy cardiovascular system. Students study the pathology of cardiovascular conditions and gain an appreciation for practicing a healthy lifestyle as it pertains to the individual, family, peers and community.

Supporting Courses: HES2010: First Aid/CPR with AED
HES1060: Respiratory System

Outcomes: The student will:

1. explain the anatomy and function of the heart

- 1.1 define common terms related to the cardiovascular system using a list of prefixes, roots and suffixes
- 1.2 name and locate the structures of the heart, including
 - 1.2.1 layers of heart muscle
 - 1.2.2 pericardium
 - 1.2.3 divisions of the heart into four chambers
 - 1.2.4 valves of the heart
 - 1.2.5 blood supply to the heart
- 1.3 describe the function of the heart, including a summary of
 - 1.3.1 phases of diastole and systole
 - 1.3.2 cardiac output, including stroke volume and heart rate
- 1.4 diagram the blood flow to in the pulmonary and systemic circuits

2. explain the basic anatomy and function of blood and blood vessels

- 2.1 name and locate the major and minor vessels of the arterial system
- 2.2 name and locate the major and minor vessels of the venous system
- 2.3 differentiate between the structure and function of veins, venules, arteries, arterioles, and capillaries
- 2.4 list the major constituents of blood and their function
- 2.5 identify and categorize blood types
- 2.6 outline the role of common blood tests as an indicator of health and wellness of body systems

3. analyze the physiology of circulation

- 3.1 describe the exchange of gases in the capillaries of the alveoli
 - 3.1.1 blood pressure
 - 3.1.2 diffusion
 - 3.1.3 osmotic pressure
- 3.2 describe the dynamics of blood flow
 - 3.2.1 compare the flow of blood in arteries and veins
 - 3.2.2 describe factors causing resistance to blood flow
- 3.3 interpret measures of blood pressure and heart rate as signs of circulatory health
 - 3.3.1 identify systolic and diastolic sounds during the monitoring of blood pressure
 - 3.3.2 identify healthy pulse rates and blood pressure readings
 - 3.3.3 identify hypotensive and hypertensive blood pressure readings
 - 3.3.4 describe the significance of heart sounds, including murmurs
 - 3.3.5 compare the characteristics of variations in heart rate

- 4. evaluate factors that contribute to the promotion and maintenance of a healthy cardiovascular system using case studies**
 - 4.1 summarize the role of the cardiovascular system in achieving and maintaining wellness
 - 4.2 explain the effects of aging on the function of the cardiovascular system
 - 4.3 predict the effect of lifestyle choices on the wellness of the cardiovascular system, including choices related to cultural beliefs and practices
 - 4.4 recommend preventative lifestyle choices required for cardiovascular wellness
 - 4.4.1 describe the relationship of active living to cardiovascular health
 - 4.4.2 describe the relationship of proper nutrition to cardiovascular health, including cholesterol factors
- 5. explain the basic pathology and treatment of cardiovascular conditions using case studies**
 - 5.1 summarize the signs and symptoms of common cardiovascular conditions, including the types of coronary artery disease and vascular disorders
 - 5.2 summarize causes of cardiovascular system pathologies
 - 5.3 describe diagnostic procedures available for conditions of the cardiovascular system, including cultural beliefs and practices that affect decisions to use procedures
 - 5.4 summarize medical and integrative health treatments available for conditions of the cardiovascular system, including cultural beliefs and practices that affect the use of treatments
 - 5.5 describe the impact of pathologies of the cardiovascular system on other body systems
 - 5.6 explain the social, emotional and economic impact of cardiovascular conditions on the individual, family, peers and the community
 - 5.7 summarize community resources available for people living with cardiovascular system pathologies
- 6. demonstrate basic competencies**
 - 6.1 demonstrate fundamental skills to:
 - 6.1.1 communicate
 - 6.1.2 manage information
 - 6.1.3 use numbers
 - 6.1.4 think and solve problems
 - 6.2 demonstrate personal management skills to:
 - 6.2.1 demonstrate positive attitudes and behaviours
 - 6.2.2 be responsible
 - 6.2.3 be adaptable
 - 6.2.4 learn continuously
 - 6.2.5 work safely
 - 6.3 demonstrate teamwork skills to:
 - 6.3.1 work with others
 - 6.3.2 participate in projects and tasks
- 7. make personal connections to the cluster content and processes to inform possible pathway choices**
 - 7.1 complete/update a personal inventory; e.g., interests, values, beliefs, resources, prior learning and experiences
 - 7.2 create a connection between a personal inventory and occupational choices

COURSE HES1080: INFECTION AND IMMUNITY 1

Level: Introductory

Prerequisite: HES1010: Health and Wellness Fundamentals

Description: Students learn the principles of infection and infectious disease as well as knowledge and skills related to the Integumentary System. Students learn knowledge and skills necessary for achieving and maintaining a healthy Integumentary System and for preventing the spread of communicable disease. . Students gain an appreciation for practicing a healthy lifestyle as it pertains to the individual, family, peers and community.

Parameters: None

Outcomes: The student will:

1. explain infectious diseases and disease processes

- 1.1 define common terms related to infectious diseases and organisms using a list of prefixes, roots and suffixes common to infectious disease terminology
- 1.2 define defense mechanisms using a list of prefixes, roots and suffixes common to terminology used to describe body defense mechanisms
- 1.3 examine historical and present day examples of epidemic, endemic and pandemic occurrences of disease
- 1.4 differentiate between local, general, systemic and opportunistic infections
- 1.5 summarize the characteristics of disease producing microorganisms and worms, including bacteria, viruses, fungi, and protozoa and prions
 - 1.5.1 identify three types of bacteria
 - 1.5.2 identify examples and benefits of normal flora
- 1.6 explain how communicable infections occur
 - 1.6.1 role of hosts, vectors and carriers
 - 1.6.2 identify the body's portals of entry and exit
 - 1.6.3 person to person direct contact
 - 1.6.4 person to person indirect contact
 - 1.6.5 indirectly by insects and pests
- 1.7 explain factors that influence the acquisition and strength of an infection
 - 1.7.1 portals of entry
 - 1.7.2 tissue preference of pathogen
 - 1.7.3 virulence of pathogen, including invasive power and production of toxins
 - 1.7.4 dose of pathogen
 - 1.7.5 predisposition of host
- 1.8 identify common diseases produced by bacteria, viruses, fungi, protozoa and worms
- 1.9 differentiate between viral and bacterial infections
- 1.10 identify causes of the common cold and associated myths

2. explain principles of microbial control in public health and health care using case studies and personal experiences

- 2.1 summarize factors that contribute to the emergence and spread of microorganisms, including factors related to
 - 2.1.1 population
 - 2.1.2 geography
 - 2.1.3 cultural beliefs and practices
 - 2.1.4 disruption of animal habitats

- 2.1.5 globalization and ability to travel
- 2.1.6 medical advances
- 2.1.7 public health and food handling practices
- 2.2 explain the phrase "breaking the chain"
- 2.3 summarize public health practices for microbial control, including community resources to support control
 - 2.3.1 sewage and garbage disposal
 - 2.3.2 water purification
 - 2.3.3 prevention of food contamination
 - 2.3.4 milk pasteurization
- 2.4 compare processes to control infection including sterilization, and the use of disinfectants and antiseptics
- 2.5 differentiate between antibiotics and antiviral medications, including
 - 2.5.1 how they function to kill microorganisms
 - 2.5.2 advantages and disadvantages
- 2.6 justify the importance of hand-washing
- 2.7 recommend preventative lifestyle choices for avoiding the common cold
- 3. explain the basic anatomy and function of the Integumentary System**
 - 3.1 define common terms related to the integumentary system using a list of prefixes, roots and suffixes common in terminology related to the integumentary system
 - 3.2 describe the structure and function of the three layers of skin
 - 3.3 describe the structure and function of accessory structures, including
 - 3.3.1 hair
 - 3.3.2 nails
 - 3.3.3 sebaceous glands
 - 3.3.4 sweat glands
 - 3.4 describe the functions of the Integumentary System
 - 3.4.1 mechanical barrier to infection
 - 3.4.2 chemical barrier to infection
 - 3.4.3 role in hydration
 - 3.4.4 excretion and regulation of body temperature
 - 3.4.5 collection of sensory information
 - 3.4.6 absorption of some medications
 - 3.4.7 manufacture of Vitamin D
- 4. assess the skin as an indicator of health and wellness using various case studies and personal experience**
 - 4.1 identify colors of skin and discolorations of skin
 - 4.2 interpret the colors of skin and discolorations of skin
 - 4.3 identify lesions, including
 - 4.3.1 surface lesions, including macules, papules, vesicles and pustules
 - 4.3.2 deeper lesions, including excoriations lacerations, ulcers, and fissures
 - 4.4 interpret possible reasons for lesions of the skin
 - 4.5 differentiate between first, second, and third degree burns
 - 4.6 identify examples of damage due to exposure to the sun
- 5. evaluate factors that contribute to the promotion and maintenance of a healthy integumentary system using multiple case studies**
 - 5.1 summarize the role of the integumentary system in achieving and maintaining wellness
 - 5.2 summarize the effects of aging on the function of the integumentary system
 - 5.3 predict the effect of lifestyle choices on the wellness of the integumentary system, including choices related to cultural beliefs and practice
 - 5.4 recommend preventative lifestyle choices required for integumentary wellness
 - 5.4.1 describe the relationship of active living to integumentary health

5.4.2 describe the relationship of proper nutrition to integumentary health

5.4.3 describe the importance of protection from over exposure to sunlight

6. explain the basic pathology and treatment of integumentary system conditions using multiple case studies

6.1 summarize the signs and symptoms of common integumentary conditions

6.2 summarize causes of integumentary system pathologies, including the effects of overexposure to sun

6.3 describe diagnostic procedures available for these conditions

6.4 summarize medical and integrative health treatments available for conditions of the integumentary system

6.5 summarize the role of dietary management for the treatment and management of various conditions

6.6 describe the impact of pathologies of the integumentary system on other body systems

6.7 explain the social, emotional and economic impact of these conditions on the individual, family, peers and the community

6.8 summarize community resources available for people living with integumentary system pathologies

7. demonstrate basic competencies

7.1 demonstrate fundamental skills to:

7.1.1 communicate

7.1.2 manage information

7.1.3 use numbers

7.1.4 think and solve problems

7.2 demonstrate personal management skills to:

7.2.1 demonstrate positive attitudes and behaviours

7.2.2 be responsible

7.2.3 be adaptable

7.2.4 learn continuously

7.2.5 work safely

7.3 demonstrate teamwork skills to:

7.3.1 work with others

7.3.2 participate in projects and tasks

8. make personal connections to the cluster content and processes to inform possible pathway choices

8.1 complete/update a personal inventory; e.g., interests, values, beliefs, resources, prior learning and experiences

8.2 create a connection between a personal inventory and occupational choices

COURSE HES1090: INFECTION & IMMUNITY 2

Level: Introductory

Prerequisite: HES1080: Infection & Immunity 1

Description: Students acquire knowledge and skills related basic principles of immunity and the processes involved in the initial defense mechanisms to prevent infection. Students complete a study of the components of blood and the role of blood in the body's defense. Students study the blood as an indicator of health and wellness and pathologies related to blood. Students gain an appreciation for practicing a healthy lifestyle as it pertains to the individual, family, peers and community.

Supporting Course: HES1070: Cardiovascular System

Outcomes: The student will:

1. explain basic principles of immunity and the defense systems of the body

- 1.1 differentiate between innate immunity (non-specific immunity) and acquired immunity (specific immunity)
- 1.2 summarize the role of chemical and mechanical barriers in the body to prevent the invasion of foreign substances as a first line of defense
 - 1.2.1 skin
 - 1.2.2 sebaceous and sweat glands
 - 1.2.3 mucous membranes and mucous secretions
 - 1.2.4 cilia
 - 1.2.5 body secretions, including tears and saliva and gastric juices
 - 1.2.6 reflexes including coughing, sneezing, vomiting and diarrhea
 - 1.2.7 blood clotting and the inflammatory response
- 1.3 summarize the role of symbiotic organisms as part of the body's defense system
- 1.4 describe other non-specific lines of defense, including
 - 1.4.1 compare the roles of complement and interferon
 - 1.4.2 phagocytosis (the second line of defense)
 - 1.4.3 natural killer cells
 - 1.4.4 inflammation
 - 1.4.5 fever

2. explain constituents and functions of blood

- 2.1 define common terms related to blood and fluid balance using a list of prefixes, roots and suffixes common to terminology
- 2.2 summarize the functions of blood
 - 2.2.1 transportation of oxygen, carbon dioxide, nutrients, minerals, vitamins, hormones and waste
 - 2.2.2 regulation of pH, fluid balance and body temperature
 - 2.2.3 protection against foreign organisms and blood loss
- 2.3 categorize the components of blood into plasma components and formed elements
- 2.4 rate the components of blood based on percentage of total blood volume
- 2.5 categorize formed elements of blood based on appearance in blood stain samples
- 2.6 compare the characteristics and functions of the five types of leukocytes
- 2.7 analyze the components of blood as indicators of health using case studies

3. describe the mechanisms of protection provided by the blood

- 3.1 describe the events that occur to prevent blood loss from the skin barrier after an injury
 - 3.1.1 vasoconstriction
 - 3.1.2 formation of platelet plug
 - 3.1.3 initial formation of a blood clot
 - 3.1.4 final formation of a blood clot
 - 3.1.5 significance of the presence of serum at the end of the clotting process
- 3.2 describe the role of inflammatory processes in the body as a defense mechanism
- 3.3 differentiate between local and systemic inflammatory responses
- 3.4 describe the events that occur to produce an inflammatory response to infection
- 4. evaluate factors that contribute to the promotion and maintenance of healthy blood using multiple case studies**
 - 4.1 summarize the role of blood in achieving and maintaining wellness
 - 4.2 summarize the effects of aging on the function blood and blood flow
 - 4.3 predict the effect of lifestyle choices on the health of blood and maintaining healthy blood flow, including choices related to cultural beliefs and practices
 - 4.4 recommend preventative lifestyle choices required for healthy blood flow
 - 4.4.1 describe the relationship of active living to healthy blood and blood flow
 - 4.4.2 describe the relationship of proper nutrition to healthy blood and blood flow
- 5. explain the basic pathology and treatment of conditions of the blood using multiple case studies**
 - 5.1 summarize the signs and symptoms of common conditions of the blood and blood flow
 - 5.2 summarize causes of pathologies related to blood and compromised blood flow
 - 5.3 describe diagnostic procedures available for these conditions, including restrictions related to cultural beliefs and practices
 - 5.4 summarize medical and integrative health treatments available for blood conditions, including cultural beliefs and practices that influence decisions to obtain treatments
 - 5.5 summarize the role of dietary management for the treatment and management of various conditions
 - 5.6 describe the impact of pathologies of the blood and blood vessels on other body systems
 - 5.7 explain the social, emotional and economic impact of these conditions on the individual, family, peers and the community
 - 5.8 summarize community resources available for people living with pathologies of the blood
- 6. demonstrate basic competencies**
 - 6.1 demonstrate fundamental skills to:
 - 6.1.1 communicate
 - 6.1.2 manage information
 - 6.1.3 use numbers
 - 6.1.4 think and solve problems
 - 6.2 demonstrate personal management skills to:
 - 6.2.1 demonstrate positive attitudes and behaviours
 - 6.2.2 be responsible
 - 6.2.3 be adaptable
 - 6.2.4 learn continuously
 - 6.2.5 work safely
 - 6.3 demonstrate teamwork skills to:
 - 6.3.1 work with others
 - 6.3.2 participate in projects and tasks
- 7. make personal connections to the cluster content and processes to inform possible pathway choices**

- 7.1 complete/update a personal inventory; e.g., interests, values, beliefs, resources, prior learning and experiences
- 7.2 create a connection between a personal inventory and occupational choices

DRAFT

COURSE HES1100: COMMUNICATION SKILLS FOR HELPING RELATIONSHIPS

Level: Introductory

Prerequisite: None

Description: Students develop basic communication skills to improve personal effectiveness when interacting with people while providing health, recreation and/or volunteer services in the community. Students examine basic ethical and legal considerations for working in these contexts. Students also develop an understanding of learning styles for educating people when providing health care, volunteer, and/or recreation services.

Parameters: This course includes concepts that may be particularly sensitive to students, parents or community members

Supporting Course: HES1010: Health & Wellness Fundamentals

Outcomes: The student will:

1. demonstrate basic principles of effective person to person communication in health care, volunteer and recreation leadership settings

- 1.1 define effective communication
- 1.2 describe skills for effective communication, including the purpose for each skill in the context of a helping relationship
 - 1.2.1 attending non-verbally
 - 1.2.2 observing
 - 1.2.3 active listening
 - 1.2.4 attending verbally
 - 1.2.5 attending environmentally
 - 1.2.6 responding effectively
- 1.3 justify the purpose and importance of effective communication and attending skills in various contexts
- 1.4 describe four types of responding skills, including the purpose of each skill in the context of a helping relationship
 - 1.4.1 responding to content
 - 1.4.2 responding to feeling
 - 1.4.3 responding to feeling and meaning
 - 1.4.4 giving effective feedback
- 1.5 compare verbal and non-verbal communication in various cultures, identifying how differences can impact helping relationships
 - 1.5.1 eye contact
 - 1.5.2 physical touch
 - 1.5.3 rate, volume and tone in speech
 - 1.5.4 various other differences
- 1.6 justify the importance of personal deportment in the establishment of an effective helping relationship, including
 - 1.6.1 grooming and hygiene
 - 1.6.2 courtesy, including punctuality
 - 1.6.3 organized for meetings and activities
 - 1.6.4 respectful, appropriate humor

- 1.7 justify the importance of core interpersonal qualities to the effectiveness of communication in a helping relationship, including
 - 1.7.1 accurate empathy
 - 1.7.2 respect and communication of caring
 - 1.7.3 concreteness
 - 1.7.4 genuineness
 - 1.7.5 humility
 - 1.7.6 immediacy
- 1.8 assess personal level of core interpersonal qualities necessary for effective communication in a helping relationship
- 1.9 assess communication skills demonstrated in role-playing
- 1.10 justify the need for personal mentorship to develop skills to a proficient level and clarify level of proficiency necessary for different helping relationships
- 2. demonstrate effective attending skills during case studies and in multiple role-playing situations**
 - 2.1 demonstrate effective non-verbal communication, including
 - 2.1.1 S.O.F.T.E.N (smile, open, lean forward, touch, eye contact, nod)
 - 2.1.2 avoiding distractions (distracting movements, thoughts, distractions in environment)
 - 2.1.3 maintaining an effective distance based on context
 - 2.1.4 facial expressions
 - 2.1.5 tone of voice
 - 2.1.6 discernment about amount of physical contact
 - 2.2 demonstrate effective observing techniques for effective communication, including skills for
 - 2.2.1 observing energy level
 - 2.2.2 observing mood
 - 2.2.3 observing for congruence
 - 2.3 demonstrate effective skills for building rapport and trust
 - 2.3.1 verbal attending, including attending to physical, intellectual and emotional needs
 - 2.3.2 verbal attending opportunities to acknowledge an individual
 - 2.3.3 attending to the other person's environment
 - 2.4 demonstrate effective listening skills for effective communication
 - 2.4.1 monitor volume, rate and tone of voice, including changes during message
 - 2.4.2 remember content of speaker's message
 - 2.4.3 identify words that are stressed in a message
 - 2.4.4 identify possible personal value judgments to avoid
 - 2.4.4.1 examine personal beliefs and attitudes related to cultural diversity
 - 2.5 Justify listening as a skill requiring full attention
 - 2.6 Differentiate active listening from listening
- 3. demonstrate effective responding skills during case studies and in multiple role-playing situations**
 - 3.1 evaluate effective responding skills as a way to communicate empathy
 - 3.1.1.1 justify when to use responding to content, responding to feeling and responding to feeling and meaning in a relationship and/or conversation
 - 3.1.1.2 categorize several feelings into categories of high, medium and low intensity
 - 3.2 demonstrate six types of effective responding skills (to content, feeling, feeling and meaning) in case studies and role playing including:
 - 3.2.1 Making minimal verbal response
 - 3.2.2 Restating or paraphrasing versus parroting
 - 3.2.3 Reflecting responses

- 3.2.4 Probing responses
- 3.2.5 encouraging or reinforcing responses
- 3.2.6 summarizing response
- 3.3 justify when to use informing responses and self-disclosure responses
 - 3.3.1 Timing in the conversation
 - 3.3.2 Appropriate and inappropriate levels of self- disclosure
- 3.4 identify ineffective or “high risk” responses in case-studies and role-playing situations, including
 - 3.4.1 Giving orders
 - 3.4.2 Giving advice
 - 3.4.3 Moralizing
 - 3.4.4 Condescending
 - 3.4.5 Diverting
 - 3.4.6 Sarcasm
 - 3.4.7 Criticizing
 - 3.4.8 Threatening
 - 3.4.9 Analyzing
 - 3.4.10 Debating
- 4. demonstrate the principles of effective questioning (clarifying responses) and feedback techniques in case studies and role-playing situations**
 - 4.1 demonstrate examples of effective questioning as part of an interchangeable response
 - 4.2 differentiate between types of questioning, including
 - 4.2.1 open-ended questions
 - 4.2.2 leading or closed -ended questions
 - 4.2.3 direct questions
 - 4.3 justify the use of a facilitative questions (open-ended and direct questions)
 - 4.4 demonstrate effective questioning using open-ended questions
 - 4.4.1 explain the purpose of open-ended questions
 - 4.4.2 explain the effective timing of open-ended questions
 - 4.5 demonstrate effective questioning using direct questions
 - 4.5.1 explain the purpose of direct questioning
 - 4.5.2 explain the effective timing of direct questioning
 - 4.6 demonstrate effective skills for giving feedback
 - 4.6.1 describe situations where feedback may be effective
 - 4.6.2 demonstrate giving effective feedback in a conversation, focusing on
 - 4.6.2.1 timing
 - 4.6.2.2 strengths of the other person
 - 4.6.2.3 revealing inconsistencies in the message after attempting several types of active listening responses
- 5. evaluate learning styles to maximize instruction in a health care, volunteer or recreation settings**
 - 5.1 summarize the characteristics of visual, auditory and kinesthetic learners, including common vocabulary based on learning style
 - 5.2 evaluate personal learning style
 - 5.2.1 describe ways to adapt personal learning style for effective instruction and communication with individuals in a health care, volunteer and/or recreation setting
 - 5.3 recommend teaching methods to address different learning styles
 - 5.4 demonstrate teaching a skill or concept using methods to address learning styles
- 6. explain basic ethical considerations for helping relationships in health care, volunteer and recreation settings**

- 6.1 justify the need to maintain confidentiality in a variety of settings, including ethical and legal considerations
- 6.2 summarize considerations for reporting child abuse
 - 6.2.1 summarize signs and symptoms of four types of abuse including physical, emotional, neglect, sexual abuse
 - 6.2.2 state the duty to report obligation according to the Child Welfare Act
 - 6.2.3 identify appropriate methods of reporting suspicions of abuse in a variety of settings
 - 6.2.4 recognize limitations of personal skill to deal with issues related to abuse or violence
- 6.3 summarize considerations for reporting suspicions of suicide
 - 6.3.1 summarize signs and symptoms of suicide
 - 6.3.2 identify appropriate methods of reporting the recognition of suicide indicators
 - 6.3.3 recognize limitations of personal skill to deal with issues related to suicide
- 6.4 state the duty to report threats made by individuals
 - 6.4.1 duty to report threats to authorities
 - 6.4.2 duty to report threats to the target of the threat

7. basic competencies

- 7.1 demonstrate fundamental skills to:
 - 7.1.1 communicate
 - 7.1.2 manage information
 - 7.1.3 use numbers
 - 7.1.4 think and solve problems
- 7.2 demonstrate personal management skills to:
 - 7.2.1 demonstrate positive attitudes and behaviors
 - 7.2.2 be responsible
 - 7.2.3 be adaptable
 - 7.2.4 learn continuously
 - 7.2.5 work safely
- 7.3 demonstrate teamwork skills to:
 - 7.3.1 work with others
 - 7.3.2 participate in projects and tasks

8. make personal connections to the cluster content and processes to inform possible pathway choices

- 8.1 complete/update a personal inventory; e.g., interests, values, beliefs, resources, prior learning and experiences
- 8.2 create a connection between a personal inventory and occupational choices

COURSE HES1110: DEVELOPING MATURITY & INDEPENDENCE

Level: Introductory

Prerequisite: HES1010: Health & Wellness Fundamentals

Description: Students examine adolescent development in the context of life-span development. Students gain an appreciation for developing strategies to achieve and maintain health and wellness through physical, emotional, social, intellectual and moral development. Students explore how adolescents can develop positive relationships and roles in the community and outline family and community resources available to support the healthy growth and development of teens as they develop maturity and independence on their journey to becoming an adult.

Parameters: Note: This course includes concepts that may be particularly sensitive to students, parents or community members.

Supporting Courses: HES1100: Communications Skills for Helping Relationships
HES1010: Health & Wellness Fundamentals

Outcomes: The student will:

1. explain principles of life-span development

- 1.1 define terms related to life-span development, personality and relationship development
- 1.2 summarize Levinson's stages of adult development and the life tasks at each stage
 - 1.2.1 developing intimacy
 - 1.2.2 creating a life structure
 - 1.2.3 establishing roots
 - 1.2.4 reevaluating life
 - 1.2.5 finding stability and peace
 - 1.2.6 coming to terms with age
- 1.3 explain three life tasks of adolescence as a period of transition towards adulthood using personal experiences
 - 1.3.1 describe the task of finding personal identity in adolescence, including developing relationships and life roles
 - 1.3.2 describe the task of becoming independent in adolescence
 - 1.3.3 describe the task of planning for employment during adolescence
- 1.4 justify the interrelatedness of physical, intellectual, emotional, social, moral and spiritual development throughout the life span

2. evaluate factors that contribute to the promotion and maintenance of physical, intellectual and emotional health and wellness during adolescent development using multiple case studies and personal experiences where appropriate

- 2.1 describe the hormonal changes that accompany adolescence, including the differences between male and female development
- 2.2 describe strategies to maintain a positive body image
- 2.3 describe the nutritional requirements of growth and development
- 2.4 describe the impact of active living and physical activity on physical health and wellness
- 2.5 describe the effect of substance use and abuse on healthy physical, intellectual and emotional development

- 2.6 evaluate personal learning styles and strategies to utilize them to enhance intellectual development
- 2.7 describe the impact of rest and a balanced activity schedule on intellectual development
- 2.8 evaluate the impact of technology on the development of intellectual, physical and emotional health and wellness
- 2.9 describe the impact of changing hormones on emotional health and wellness
- 2.10 describe strategies to manage emotions effectively using case studies and personal experiences
- 2.11 describe the impact of social and cultural beliefs and practices on the development and maintenance of healthy physical, intellectual and emotional wellness
- 3. evaluate the development of character and morality using case studies and personal experiences where appropriate**
 - 3.1 describe the characteristics of Kohlberg's stages of moral development
 - 3.2 list values that are personally important in a personal code of ethics
 - 3.3 describe steps to resolving a moral dilemma
 - 3.4 describe the impact of social and cultural beliefs and practices on the development of character and morality
- 4. evaluate factors that contribute to the promotion and maintenance of healthy relationships during adolescent development using multiple case studies and personal experiences where appropriate**
 - 4.1 list types of relationships important to social development, including family, friends, casual, voluntary, and involuntary relationships
 - 4.2 describe strategies for building a positive attitude
 - 4.2.1 identify the impact of a positive or negative attitude on relationships
 - 4.2.2 outline the impact of self-esteem on attitude
 - 4.2.3 outline community and family resources to help develop positive attitudes and self-esteem
 - 4.3 evaluate the impact of friendships on healthy social development
 - 4.3.1 describe the benefits of healthy friendships with children, peers, adults (including parents) and seniors
 - 4.3.2 describe traits that help develop friendships
 - 4.3.2.1 cleanliness
 - 4.3.2.2 positive attitude
 - 4.3.2.3 caring and courteous manners
 - 4.3.2.4 generous and accepting attitude
 - 4.3.3 describe the importance of reciprocity, trust, loyalty, rapport, and empathy for healthy friendships and family relationships
 - 4.3.4 examine the role of technology in building and maintaining a relationship
 - 4.3.5 explain how popularity, gossip and competition can impact friendships
 - 4.3.6 recommend strategies for managing negative peer pressure
 - 4.3.7 describe reasons and effective, caring strategies for ending a friendship
 - 4.4 describe the stages of learning to love through stages of life-span development from infancy through to mature love and commitment
 - 4.5 compare infatuation and immature love to mature love and commitment
 - 4.6 explain the qualities a relationship based on mature love and commitment
 - 4.7 describe considerations for dating
 - 4.7.1 outline the benefits of associating in groups
 - 4.7.2 list considerations regarding physical, emotional and social development that impact the decision to begin dating, including the importance of seeking parental and adult perspectives
 - 4.7.3 identify characteristics of unsafe dating situations and relationships
 - 4.8 examine considerations for sexual intimacy during adolescence

- 4.8.1 describe the long term impact of a sexually intimate relationship on life-span development and the life tasks of adolescence
- 4.8.2 describe common sexually transmitted diseases
- 4.8.3 compare birth control methods, including abstinence
- 4.9 describe the impact of teen pregnancy on healthy life-span development for the baby, mother, father, and their extended family
- 4.10 describe the impact of social and cultural beliefs and practices on the development and maintenance of healthy relationships during adolescence
- 5. explain strategies for developing citizenship as part of life-span development**
 - 5.1 explain the rights and responsibilities of citizens
 - 5.2 list strategies for demonstrating citizenship, including opportunities to
 - 5.2.1 help neighbors
 - 5.2.2 relate to seniors in the community
 - 5.2.3 volunteer
 - 5.2.4 protect and maintain community property
 - 5.2.5 control crime
- 6. describe strategies for developing independence and preparing for employment**
 - 6.1 outline skills needed for independent living, including
 - 6.1.1 managing money
 - 6.1.2 understanding consumer issues
 - 6.1.3 learning to drive or obtain transportation independently
 - 6.2 list resources available to obtain skills for independence, including family, school and community resources
 - 6.3 list career planning resources available in the school and community
- 7. demonstrate basic competencies**
 - 7.1 demonstrate fundamental skills to:
 - 7.1.1 communicate
 - 7.1.2 manage information
 - 7.1.3 use numbers
 - 7.1.4 think and solve problem
 - 7.2 demonstrate personal management skills to:
 - 7.2.1 demonstrate positive attitudes and behaviours
 - 7.2.2 be responsible
 - 7.2.3 be adaptable
 - 7.2.4 learn continuously
 - 7.2.5 work safely
 - 7.3 demonstrate teamwork skills to:
 - 7.3.1 work with others
 - 7.3.2 participate in projects and tasks
- 8. make personal connections to the cluster content and processes to inform possible pathway choices**
 - 8.1 complete/update a personal inventory; e.g., interests, values, beliefs, resources, prior learning and experiences
 - 8.2 create a connection between a personal inventory and occupational choices

COURSE HES1120: PERSPECTIVES ON INTERPERSONAL RELATIONSHIPS

Level: Introductory

Prerequisite: None

Description: Students examine relationships in their lives and identify their roles in relationships. Students develop personal effectiveness and basic conflict resolution skills needed to enhance personal and working relationships. Students examine basic ethical, legal and cultural considerations when managing conflict in a variety of settings and relationships.

Parameters: This course contains concepts that may be particularly sensitive to students, parents and community members

Supporting Courses: HES1100: Communication Skills for Helping Relationships
HES1110: Developing Maturity & Independence
HES1010: Health & Wellness Fundamentals

Outcomes: The student will:

1. evaluate types of relationships including considerations for cultural beliefs and practices using multiple case studies and appropriate personal experiences

- 1.1 define commonly used terms to describe relationships, leadership, conflict management, problem-solving and teamwork
- 1.2 compare the characteristics of relationships in society, including
 - 1.2.1 family relationships, including relationships with parents and siblings
 - 1.2.2 friendships
 - 1.2.3 intimate relationships
 - 1.2.4 school relationships
 - 1.2.5 work relationships
 - 1.2.6 casual relationships
 - 1.2.7 community/team relationships, such as volunteer committees and sports teams
- 1.3 compare how elements of attitude, respect, cooperation, reciprocation and etiquette support the healthy development and maintenance of all types of relationships
- 1.4 compare the concepts of positional authority, personal authority and leadership in different types of relationships, including
 - 1.4.1 similarities and differences
 - 1.4.2 roles and responsibilities
 - 1.4.3 difficulties to overcome related to authority
 - 1.4.4 two tasks of authority or leadership positions
 - 1.4.4.1 accomplishing goals
 - 1.4.4.2 caring for the welfare of individuals on the team or under their authority
- 1.5 describe the qualities of an effective team or committee
- 1.6 describe the qualities of an effective team member in working and volunteer community settings, including
 - 1.6.1 punctuality
 - 1.6.2 grooming and hygiene
 - 1.6.3 courtesy
 - 1.6.4 organization

- 1.6.5 respectful attitude
- 1.6.6 friendliness
- 1.6.7 willingness to learn new skills
- 1.7 differentiate between participatory leadership and directive leadership
- 1.8 explain the importance of different leadership skills related to different teams or committees
 - 1.8.1 technical skills
 - 1.8.2 people skills
 - 1.8.3 thinking and problem-solving skills
 - 1.8.4 project management skills
- 1.9 differentiate between positive responses to authority and rebelliousness
- 1.10 evaluate personal relationships in terms of positional and personal authority and leadership roles, including
 - 1.10.1 relationships where personal leadership or authority exists
 - 1.10.2 relationships where another person has an authority or leadership role
- 1.11 evaluate how technology can enhance or cause conflict in relationships
- 2. explain conflicts that exist in relationships, including considerations for cultural beliefs and practices using multiple case studies, appropriate personal experiences, and role-playing scenarios**
 - 2.1 define conflict and conflict management
 - 2.2 categorize examples of types of conflict
 - 2.2.1 interpersonal conflict
 - 2.2.2 intergroup conflicts
 - 2.2.3 peer conflicts or "cliques"
 - 2.2.4 intrapersonal conflicts
 - 2.3 compare the possible advantages and disadvantages of positive and negative conflicts in all types of relationships, including "the silent treatment"
 - 2.4 summarize common types and causes of conflict in all types of relationships, including
 - 2.4.1 situational conflicts
 - 2.4.2 personality differences
 - 2.4.3 power struggles
 - 2.4.4 differences in ideas, definitions, perceptions or goals
 - 2.4.5 gender differences in perspective
 - 2.4.6 expectations
 - 2.4.7 world views and beliefs
 - 2.4.8 communication skills
 - 2.4.9 stress and illness
- 3. demonstrate steps to manage conflicts positively in all types of relationships, including considerations for cultural beliefs and practices using multiple case studies, appropriate personal experiences and role-playing scenarios**
 - 3.1 demonstrate strategies to define the conflict/problem
 - 3.1.1 gather information to be sure of accuracy, including facts and examples
 - 3.1.2 differentiate between a symptom and a problem
 - 3.1.3 evaluate the size of the problem/conflict, considering the complexity and impact of the conflict/problem
 - 3.2 compare the advantages and disadvantages of methods of managing problems/conflicts
 - 3.2.1 procrastination
 - 3.2.2 denial
 - 3.2.3 forgiving and letting go
 - 3.2.4 avoiding the problem
 - 3.2.5 seeking assistance where appropriate

- 3.3 demonstrate effective strategies for preventing and avoiding conflict/problems, including
 - 3.3.1 early intervention
 - 3.3.2 avoiding labeling, stereotypes and biases
 - 3.3.3 making constructive personal changes where possible and appropriate
 - 3.3.4 walking away from a fight
 - 3.3.5 changing the subject
 - 3.3.6 refocusing a conversation to the positive
 - 3.3.7 controlling reactive responses and emotions
- 3.4 justify the importance of effective communication skills to facilitate conflict resolution, including
 - 3.4.1 active listening skills
 - 3.4.2 empathy
 - 3.4.3 giving and accepting feedback
 - 3.4.4 asking for clarification
- 3.5 identify ineffective communication responses that inhibit conflict resolution in case studies and role-playing situations, including
 - 3.5.1 condescending
 - 3.5.2 moralizing
 - 3.5.3 sarcasm
 - 3.5.4 arguing
 - 3.5.5 lack of participation in process
 - 3.5.6 dominating the discussion
 - 3.5.7 repetition of only one solution
 - 3.5.8 frequent interrupting
 - 3.5.9 closed body language
 - 3.5.10 criticism
 - 3.5.11 verbal or physical aggression
- 3.6 describe the importance of considerations for choosing a time and location to resolve a conflict, including
 - 3.6.1 the importance of limiting distractions, including physical and mental
 - 3.6.2 the importance of allowing enough time
 - 3.6.3 the importance of meeting physical comforts first (hunger, temperature, fatigue)
- 3.7 demonstrate strategies to communicate successfully to resolve and/or manage conflicts
 - 3.7.1 agree on a definition of the problem
 - 3.7.2 acknowledge the opposite point of view politely
 - 3.7.3 set limits that both parties agree to keep regarding topics and personal attacks
 - 3.7.4 focus on the problem/conflict, not the person or emotions
 - 3.7.5 listen without interrupting
 - 3.7.6 identify common ground
 - 3.7.7 explore alternatives to resolve the conflict through negotiation and/or compromise
 - 3.7.8 agree on a solution to implement and establish expectations clearly
 - 3.7.8.1 adapt SMART goal-setting where appropriate (specific, measureable, attainable, realistic and timely)
 - 3.7.9 implement solution
 - 3.7.10 evaluate the plan to resolve the conflict
 - 3.7.11 modify the plan based on evaluation
- 3.8 summarize the role of mediation to resolve difficult conflicts

- 3.9 outline community resources available to assist individuals experiencing conflict in a variety of settings
- 3.10 summarize situations where conflicts require legal and/or professional help, including
 - 3.10.1 conflicts regarding issues of abuse
 - 3.10.2 conflicts where suicide is threatened or discussed
 - 3.10.3 conflicts where criminal activity is encouraged or revealed

4. basic competencies

- 4.1 demonstrate fundamental skills to:
 - 4.1.1 communicate
 - 4.1.2 manage information
 - 4.1.3 use numbers
 - 4.1.4 think and solve problems
- 4.2 demonstrate personal management skills to:
 - 4.2.1 demonstrate positive attitudes and behaviors
 - 4.2.2 be responsible
 - 4.2.3 be adaptable
 - 4.2.4 learn continuously
 - 4.2.5 work safely
- 4.3 demonstrate teamwork skills to:
 - 4.3.1 work with others
 - 4.3.2 participate in projects and tasks

5. make personal connections to the cluster content and processes to inform possible pathway choices

- 5.1 complete/update a personal inventory, e.g., interests, values, beliefs, resources, prior learning and experiences
- 5.2 create a connection between a personal inventory and occupational choices

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COURSE HES1130: INJURY MANAGEMENT 1

Level: Introductory

Prerequisite: None

Description: Students learn prevention, assessment, and management techniques related to injuries that may occur during recreation and sporting events and activities. Students develop an appreciation for the role of a first-aider as it pertains to the individual, family, peers, community, and sports medicine team.

Parameters: Access to instruction from an individual with formal, specialized training in athletic first aid is required. **If certification is desired, the instructor must be certified in Athletic First Aid from the Sports Medicine Council of Alberta.** A background in Physical Education, Kinesiology or related fields is also suggested. **Actual application of injury management and treatment can only be practiced in a simulated setting.** Students may observe medical professionals during sporting or recreation events and activities to gain additional knowledge and skills. **Assistance at events can only occur at the discretion and under the direct supervision of a qualified teacher or certified Athletic Therapist or equivalent medical personnel.**

Note: This course is the introductory course necessary for certifications for **Athletic First Aid and Athletic Taping and Strapping** from the Sports Medicine Council of Alberta. This certification is available to *member schools* who meet the Council's requirements. The **5** courses required for this certification include: Injury Management 1, Injury Management 2, Musculoskeletal System 1, First Aid with CPR/AED and Nutrition for Recreation Activities and Sport

Supporting Courses: HES1010: Health & Wellness Fundamentals
HES1040: Musculoskeletal System 1
HES1070: Cardiovascular System
HES2010: First Aid/CPR with AED

Outcomes: The student will:

- 1. evaluate roles and responsibilities of a first-aider in prevention of injuries before an event or season of play**
 - 1.1 describe the roles of the members of a sports medicine team
 - 1.2 state the importance of maintaining current Emergency and Standard First Aid/CPR certification
 - 1.3 differentiate between watching an event in the role of a participant or observer versus an athletic first-aider
 - 1.4 describe possible liability issues related to athletic first aid
 - 1.5 summarize risk management responsibilities
 - 1.6 describe a code of ethics for an athletic first aid provider
 - 1.7 summarize the collection and management of medical information important to collect from participants, including:

- 1.8 assess a facility and the environmental conditions for injury potential on the day of an event
 - 1.8.1 recommend participation based on assessment of heat and humidity
 - 1.8.1.1 describe risk factors for physical activity related to heat and humidity
 - 1.8.1.2 recommend steps to avoid heat injuries
 - 1.8.1.3 interpret Humidex values
 - 1.8.1.4 explain guidelines for exercising for heat-acclimated, well-hydrated individuals based on different Humidex values
 - 1.8.2 recommend participation based on assessment a cold environment
 - 1.8.2.1 describe risk factors for physical activity related to a cold environment
 - 1.8.2.2 recommend steps to avoid cold injuries
 - 1.8.2.3 interpret Wind-Chill Factor Values
 - 1.8.2.4 identify risk of frost-bite related to wind-chill and temperature
- 1.9 summarize risks associated with the fitness and conditioning of participants
- 1.10 assess protective equipment and other gear or attire for safety and fit
- 1.11 promote the benefits of proper attire and gear, including a description of the possible hazards of jewellery and other items that can cause choking hazard or injury
- 1.12 promote and help supervise proper skill instruction of athletes or participants in relation to the activity to ensure proper techniques in warm-up, training, practice, competition or active participation, and cool down
- 1.13 describe basic hygienic principles to reduce the risk of infection at an event
- 1.14 classify therapeutic drugs, recreational drugs and performance –enhancing drugs sometimes used by athletes
 - 1.14.1 summarize the ethical considerations for an athletic first-aider in relation to drug use by athletes
- 2. develop an emergency action plan to prepare for possible emergencies at different venues**
 - 2.1 summarize the necessity of an emergency action plan, including the importance of rehearsal
 - 2.2 identify key components of an emergency action plans for on-field and sideline emergencies including considerations for
 - 2.3 summarize the reasons to call for Emergency Medical Services
 - 2.4 develop emergency protocol documents
 - 2.5 build an athletic first aid kit and identify additional important equipment or supplies
 - 2.6 develop a pre-event checklist appropriate for different venues
- 3. explain basic physiological principles related to various injuries and illnesses that may occur during recreation or sporting events and activities**
 - 3.1 categorize injuries as life-threatening, serious or non life-threatening injuries
 - 3.2 categorize injuries as acute, chronic or recurrent injuries
 - 3.3 summarize common causes of injuries or illnesses, including
 - 3.3.1 neck and spine injuries
 - 3.3.2 internal injuries, including ruptured spleen, bruised kidney, testicular trauma
 - 3.3.3 respiratory illnesses, including asthma and hyperventilation
 - 3.3.4 circulatory illnesses, including angina, heart attack and stroke
 - 3.3.5 hyperthermia, including heat cramps, heat exhaustion, and heat stroke
 - 3.3.6 hypothermia and frostbite
 - 3.3.7 diabetic coma and insulin shock
 - 3.3.8 seizures and convulsions
 - 3.3.9 nose injuries, including nosebleeds and broken noses
 - 3.3.10 eye injuries, including contusions, lacerations and foreign bodies in the eye
 - 3.3.11 dental injuries, including loose or chipped teeth and avulsed or knocked out teeth

- 3.4 describe mechanisms of injury, including direct blow, torsion, shearing, bending and twisting of bones
- 3.5 summarize considerations for fractures during pre-adolescence and adolescence
- 3.6 explain the phases of the injury cycle
 - 3.6.1 inflammatory phase, using the acronym S.H.A.R.P
 - 3.6.2 repair and regeneration phase
 - 3.6.3 remodeling phase
- 4. demonstrate roles and responsibilities of a first-aider in response to injuries specific to assessment using case studies and various practical, simulation exercises**
 - 4.1 evaluate injury scenarios, differentiating between life-threatening, serious and non life-threatening injuries
 - 4.2 justify when medical referral is necessary
 - 4.3 demonstrate primary assessment skills as part of the initial response to injury, using case studies and active involvement in practical, simulated exercises
 - 4.3.1 ensure safety
 - 4.3.2 assess consciousness
 - 4.3.3 assess for possible neck injury
 - 4.3.4 activate EAP
 - 4.3.5 primary survey, including ABC assessment
 - 4.4 apply the four steps of the H.O.P.E principle for secondary assessment skill as part of the initial response to injury using case studies and active involvement in practical, simulated exercises
 - 4.4.1 describe basic considerations for conducting a secondary assessment
 - 4.4.2 describe the components of a thorough history, including components to assess severity of an injury
 - 4.4.2.1 rate pain indicators using P.O.R.S.T.
 - 4.4.2.2 summarize words often used by individuals to describe the sensations they felt at the time of injury
 - 4.4.2.3 list important indicators from medical history information and from observations made at time of injury
 - 4.4.3 recognize signs and symptoms of injuries
 - 4.4.3.1 five types of head injury: concussion, contusion, hemorrhage, fracture, epi and subdural hematoma
 - 4.4.3.2 additional life-threatening and/or serious injuries, including
 - 4.4.3.2.1 Neck and spine injuries
 - 4.4.3.2.2 Internal injuries, including ruptured spleen, bruised kidney, testicular trauma
 - 4.4.3.2.3 respiratory illnesses, including asthma and hyperventilation
 - 4.4.3.2.4 circulatory illnesses, including angina, heart attack and stroke
 - 4.4.3.2.5 hyperthermia, including heat cramps, heat exhaustion, and heat stroke
 - 4.4.3.2.6 hypothermia and frostbite
 - 4.4.3.2.7 diabetic coma and insulin shock
 - 4.4.3.2.8 seizures and convulsions
 - 4.4.3.2.9 nose injuries, including nosebleeds and broken noses
 - 4.4.3.2.10 eye injuries, including contusions, lacerations and foreign bodies in the eye
 - 4.4.3.2.11 fractures, including open, closed and stress fractures
 - 4.4.3.3 recognize signs and symptoms of non-life threatening injuries, including blisters, soft-tissue injuries, joint injuries and dental injuries
 - 4.4.4 describe appropriate palpation skills for point tenderness, skin changes, crepitus, temperature and pulse

- 4.4.5 describe range of motion testing to evaluation function
- 5. demonstrate the appropriate management and treatment of injuries that may occur during recreation activities and sporting events, using case studies and various practical, simulation exercises**
- 5.1 describe protocols for response when an injured athlete or participant is unconscious and not moving
- 5.2 assess the severity of a concussion by using a post-concussion assessment tool
- 5.3 apply appropriate skills for the management and treatment of life-threatening and serious injuries including
- 5.3.1 neck and spine injuries
 - 5.3.2 internal injuries, including ruptured spleen, bruised kidney, testicular trauma
 - 5.3.3 respiratory illnesses, including asthma and hyperventilation
 - 5.3.4 circulatory illnesses, including angina, heart attack and stroke
 - 5.3.5 hyperthermia, including heat cramps, heat exhaustion, and heat stroke
 - 5.3.6 hypothermia and frostbite
 - 5.3.7 diabetic coma and insulin shock
 - 5.3.8 seizures and convulsions
 - 5.3.9 nose injuries, including nosebleeds and broken noses
 - 5.3.10 eye injuries, including contusions, lacerations and foreign bodies in the eye
 - 5.3.11 dental injuries, including loose, chipped, avulsed or knocked out teeth
 - 5.3.12 fractures
- 5.4 describe return to play protocols and considerations for injuries, including concussions and fractures
- 5.5 demonstrate appropriate injury treatment (R.I.C.E)
- 5.5.1 relate the importance of correct implementation of RICE to recovery time
 - 5.5.2 describe methods to apply principles of rest and restricted activity
 - 5.5.3 describe the proper application of ice to an injured area, including precautions for the application of ice
 - 5.5.4 describe the importance of compression to musculoskeletal injuries
 - 5.5.5 describe basic principles to consider when applying compression to an injury
 - 5.5.6 describe reasons to elevate a limb, including precautions for elevation
- 5.6 describe the appropriate roles for an athletic first-aider to support rehabilitation
- 5.7 explain proper documentation procedures for response to injuries
- 6. demonstrate basic competencies**
- 6.1 demonstrate fundamental skills to:
- 6.1.1 communicate
 - 6.1.2 manage information
 - 6.1.3 use numbers
 - 6.1.4 think and solve problems
- 6.2 demonstrate personal management skills to:
- 6.2.1 demonstrate positive attitudes and behaviours
 - 6.2.2 be responsible
 - 6.2.3 be adaptable
 - 6.2.4 learn continuously
 - 6.2.5 work safely
- 6.3 demonstrate teamwork skills to:
- 6.3.1 work with others
 - 6.3.2 participate in projects and tasks
- 7. make personal connections to the cluster content and processes to inform possible pathway choices**
- 7.1 complete/update a personal inventory; e.g., interests, values, beliefs, resources, prior learning and experiences
- 7.2 create a connection between a personal inventory and occupational choices

COURSE HES1910: HES PROJECT A

Level: Introductory

Prerequisite: None

Description: Students develop project design and management skills to extend and enhance competencies and skills in other Career and Technology Studies (CTS) courses through contexts that are personally relevant.

Parameters: This course must make connections with a minimum of 2 CTS courses, one of which must be at the introductory level.

All projects and/or performances whether teacher or student led, must include a course outline or student proposal.

Outcomes:

The teacher/student will:

- 1. identify the two or more CTS courses being linked to this course**
 - 1.1. justify the connection
 - 1.2. identify key outcomes
- 2. propose, manage and assess a project and/or performance**
 - 2.1. identify project and/or performance:
 - 2.1.1. prepare a plan
 - 2.1.2. clarify the purposes
 - 2.1.3. define deliverables
 - 2.1.4. specify timelines
 - 2.1.5. explain terminology, tools and processes consistently throughout
 - 2.1.6. define resources (e.g., materials, costs, staffing)
 - 2.2. identify and comply with all related health and safety standards
 - 2.3. define assessment standards (indicators for success)
 - 2.4. present proposal and obtain necessary approvals

The student will:

- 3. meet goals as defined within the plan**
 - 3.1. complete the project and/or performance as outlined
 - 3.2. monitor project and/or performance and make necessary adjustments
 - 3.3. present the project and/or performance:
 - 3.3.1. outcomes attained
 - 3.3.2. relationship to goals set originally
 - 3.4. evaluate the project and/or performance:
 - 3.4.1. processes and strategies used
 - 3.4.2. recommendations for how the project and/or performance could have been improved
- 4. demonstrate basic competencies**
 - 4.1. demonstrate fundamental skills to:
 - 4.1.1. communicate
 - 4.1.2. manage information

- 4.1.3. use numbers
- 4.1.4. think and solve problems
- 4.2. demonstrate personal management skills to:
 - 4.2.1. demonstrate positive attitudes and behaviours
 - 4.2.2. be responsible
 - 4.2.3. be adaptable
 - 4.2.4. learn continuously
 - 4.2.5. work safely
- 4.3. demonstrate teamwork skills to:
 - 4.3.1. work with others
 - 4.3.2. participate in projects and tasks
- 5. make personal connections to the cluster content and processes to inform possible pathway choices**
 - 5.1. complete/update a personal inventory; e.g., interests, values, beliefs, resources, prior learning and experiences
 - 5.2. create a connection between a personal inventory and occupational choices.

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