

PHYSICAL HEALTHCARE SUBCLUSTER
HEALTHCARE SCIENCE 2- ESSENTIALS OF HEALTHCARE PRACTICES 5551

COURSE DESCRIPTION: Builds on curriculum introduced in Foundations of Healthcare Professions. Develop enhanced written and oral communication skills and medical math principles. This course applies basic medical terminology roots, prefixes, and suffixes to communicate body systems, diseases, and disorders. Identifies how key systems affect services performed and quality of care. Defines legal responsibilities, limitations, and implications on healthcare worker actions. Investigates accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment. Instructs technical skills for measuring and recording vital signs.

GENERAL REQUIREMENTS: This course is designed for students in grades 10-12. To advance to any Physical Healthcare Subcluster courses, students must achieve a score of 75% or higher in each Physical Healthcare course taken. Students scoring less than 75% must have a direct recommendation from the instructor of the course that the minimum requirement was not met. Students not meeting the general requirements should not take a seat away from the students that do meet the requirements. BLS Healthcare CPR Certification and Job Shadowing will be required during this course.

PRE-REQUISITES: Biology and Healthcare Science 1 – Foundations of Healthcare Professions

CREDIT: CP - 1 unit = (120 hours) To achieve honors weighting, courses must meet the criteria in the SC Honors Framework.

RECOMMENDED MAXIMUM CLASS SIZE – 24 students

CONCENTRATOR: Completes HS1 and HS 2 with a satisfactory score.

COMPLETERS: For a full explanation of completers visit the Student Reporting Procedures Guide (SRPG) or the SCDE program specific web page.

Three Course Completer Sample:

HS1, HS 2, HS Human Structure, Function and Disease

OR Four Course Completer Sample:

HS 1, HS 2, HS WBL, Behavioral Health



Healthcare & Human Services

Supporting the Whole Health of Individuals, Families, and Communities

STACKABLE CREDENTIALS: Please refer to the updated tired credential list on the SCDE Website. This course would be suitable for Tier One or Tier Two Credentials. Examples: Healthcare Providers BLS CPR, OSHA 10, FAST (First Aid for Severe Trauma), or any other applicable credentials as listed in the Student Reporting Guide

CURRICULAR ACTIVITIES: HOSA–Future Health Professionals, Service-Learning Projects

STANDARDS

1.0 COMMUNICATION

(Based on National Health Science Standards 2.1.3, 2.3.1, 2.3.2, 2.3.3)

Demonstrate methods of delivering and obtaining information, while communicating effectively.

1.1 Concepts of Effective Communication

1.1.1 Distinguish between subjective and objective information.

1.2 Written Communication Skills

1.2.1 Use proper elements of written and electronic communication (spelling, grammar, and formatting).

1.2.2 Prepare examples of technical and informative writing.

1.2.3 Demonstrate appropriate use of digital communication in a work environment, such as email, text, and social media.

1.3 Medical Terminology

1.3.1 Use common roots, prefixes, and suffixes to communicate information.

1.3.2 Interpret common medical abbreviations to communicate information.

2.0 HUMAN ANATOMY AND PHYSIOLOGY

(Based on National Health Science Standards 1.1.1 b, c, d)

Understand human anatomy, physiology, common diseases and disorders.

2.1 Describe the organization of the human body and directional terms.

2.1.1 Demonstrate anatomical position

2.1.2 Identify body planes

- Coronal / Frontal
- Midsagittal
- Sagittal



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- Transverse / Horizontal

2.1.3 Use directional terms

- Anterior / Posterior
- Cephalic/Caudal
- Medial / Lateral
- Proximal / Distal
- Superficial / Deep
- Superior / Inferior
- Ventral / Dorsal

2.2 Identify the major human body systems, and their basic function.

2.3 Describe biomedical therapies as they relate to the prevention, pathology, and treatment of disease.

- Stem cell research
- Immunotherapy
- Immunizations

3.0 SYSTEMS

(Based on National Health Science Standards 3.1.1, 3.1.2, 3.1.3, 3.1.4)

Identify how key systems affect services performed and quality of care.

3.1 Healthcare Delivery Systems

3.1.1 Differentiate healthcare delivery systems and healthcare related agencies.

3.1.11 Types of practice settings

- Acute care
- Ambulatory care
- Behavioral and mental health services
- Home care
- Long-term care
- Medical and dental practices
- Specialty medical and dental practices
- Cosmetic surgery
- Orthodontics
- Pulmonology
- Surgical

3.1.2 Government agencies

- Centers for Disease Control and Prevention (CDC)
- Centers for Medicare & Medicaid Services (CMS)
- National Institutes of Health (NIH)
- Occupational Safety and Health Administration (OSHA)

- U.S. Department of Veterans Affairs (VA)
- U.S. Food and Drug Administration (FDA)
- U.S. Public Health Service (USPHS)

3.1.3 Related organizations

- American Cancer Society (ACS)
- American Heart Association (AHA)
- American Red Cross (ARC)
- March of Dimes
- World Health Organization (WHO)

3.2 Examine the healthcare consumer's rights and responsibilities within the healthcare system.

- Compliance
- Patient's Bill of Rights
- Self-advocacy

3.3 Analyze the impact of emerging issues on healthcare delivery systems.

- Behavior/Mental health
- Bioethics
- Epidemiology
- Socioeconomics
- Technology

3.4 Analyze healthcare economics and related terms.

3.4.1 The history and role of health insurance and employer/employee benefits.

3.4.2 Fundamental terms related to health insurance

- Claim
- Coinsurance
- Co-payment
- Explanation of Benefits (EOB)
- Fraud
- Health Insurance Portability and Accountability Act (HIPAA)
- Medical Coding
- Premium

3.4.3 Types of insurance plans

- Private health insurance plans
- Managed Care
 - o Health Maintenance Organization (HMO)
 - o Independent Practice Association (IPA)
 - o Preferred Provider Organization (PPO)
- Government programs
 - o Affordable Care Act (ACA)
 - o Children's Health Insurance Program (CHIP)

- o Medicaid
- o Medicare
- o Tricare
- o Workers' Compensation

4.0 LEGAL RESPONSIBILITIES

(Based on National Health Science Standards 5.1.1, 5.2.1, 5.2.2, 5.2.3, 5.2.4, 5.2.5, 5.2.6, 5.2.7)

Describe legal responsibilities, limitations, and implications on healthcare worker actions.

4.1 Legal Responsibilities and Implications

4.1.1 Analyze legal responsibilities and implications of criminal and civil law.

- Abuse
- Assault
- Battery
- Harassment
- Invasion of privacy
- Libel
- Malpractice
- Negligence
- Slander
- Tort

4.2 Legal Practices

4.2.1 Apply standards for the safety, privacy, and confidentiality of health information.

- HIPAA
- Privileged communication

4.2.2 Describe Advance Directives.

4.2.3 Summarize the essential characteristics of a patient's basic rights within a healthcare setting.

4.2.4 Differentiate informed, expressed, and implied consent.

4.2.5 Describe the concept of scope of practice.

4.2.6 Interpret procedures for reporting activities and behaviors that affect health, safety, and welfare of others (incident report).

5.0 ETHICS

(Based on National Health Science Standards 6.1.1, 6.1.2, 6.2.1, 6.2.2)

Understand accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment.

5.1 Ethical Practice

5.1.1 Differentiate between ethical and legal issues impacting healthcare.

5.1.2 Identify ethical issues and their implications related to healthcare

- Ethics committee
- Euthanasia
- Gene editing
- Immunizations
- In vitro fertilization
- Organ donation/transplantation
- Scope of practice

5.2 Cultural, Social, and Ethnic Diversity

5.2.1 Discuss religious and cultural values as they impact healthcare.

- Ageism
- Ethnicity
- Gender
- Race
- Religion

5.2.2 Demonstrate respectful and empathetic treatment of ALL patients/clients.

- Civility
- Customer service
- Patient satisfaction

5.2.3 Discuss physical, mental, social and behavioral development and its impact on healthcare across the lifespan.

- Identify the stages of death and dying
- Healthcare across the lifespan

5.2.4 Identify health disparities that impact health and wellness



6.0 MEDICAL MATHEMATICS

(Based on National Health Science Standards 1.3.1, 1.3.2, 1.3.3)

Apply math principles integral to medical applications.

6.1. Demonstrate competency using basic math skills and mathematical conversions as they relate to healthcare.

6.1.1 Metric system

- Centi-
- Deci-
- Kilo-
- Milli-
- Micro

6.1.2 Mathematical Operations

- Addition / Subtraction
- Average
- Fractions
- Multiplication / Division
- Percentages
- Ratios

6.1.3 Conversions

- Height (inches/meters)
- Household measurements (tbsp/tsp/cup/oz)
- Length (inches/meters)
- Temperature (°F/°C)
- Volume (mL/cc)
- Weight/mass (pounds/grams)

6.2 Demonstrate the ability to analyze diagrams, charts, graphs, and tables to interpret healthcare results.

6.3 Demonstrate use of the 24-hour clock/military time.

7.0 INFORMATION TECHNOLOGY IN HEALTHCARE

(Based on National Health Science Standards 11.1.1, 11.1.2, 11.1.3, 11.1.4)

Apply information technology practices common across health professions.

7.1 Key Principles, components, and practices of Health Information Systems

7.11 Identify components of an electronic health record (EHR) and/or electronic medical record (EMR).

- Diagnostic tests
- History and physical
- Medications
- Patient demographics
- Progress notes
- Treatment Plan

7.1.2 Evaluate types of health data collection tools.

- Medical wearable devices
- Patient monitoring equipment
- Phone application
- Telemedicine/telehealth

7.1.3 Create electronic documentation that reflects timeliness, completeness, and accuracy.

7.1.4 Adhere to information systems policies, procedures, and regulations as required by national, state, and local entities.

8.0 TECHNICAL SKILLS*

(Based on National Health Science Standards 10.1.1, 10.1.2)

Apply and demonstrate technical skills and knowledge common to health career specialties.

8.1 Demonstrate procedures for measuring and recording vital signs in both normal and abnormal ranges – including but not limited to:

- Blood pressure
- Height and weight



- Oxygen saturation
- Pain
- Pulse
- Respirations
- Temperature
- Snellen Chart
- BLS Healthcare Providers CPR Training

8.2 Employ safe work practices and follow health and safety policies and procedures to prevent injury and illness. Demonstrate the following:

- Patient identification
- Handwashing
- Gloving
- Personal Protective Equipment (PPE)
- Isolation Precautions
- Transmission-based contact
- Body Mechanics with transferring, ambulation, lifting and positioning

**Additional technical skills may be included in a program of study based on career specialties*