

# Introduction to Healthcare Science (2023)

**Demonstrate employability skills required by business and industry.** [HS-IHS-1](#)

- 1 Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities.** [HS-IHS-1.1](#)
- 2 Demonstrate creativity by asking challenging questions and applying innovative procedures and methods.** [HS-IHS-1.2](#)
- 3 Exhibit critical thinking and problem-solving skills to locate, analyze and apply information in career planning and employment situations.** [HS-IHS-1.3](#)
- 4 Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity.** [HS-IHS-1.4](#)
- 5 Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply teamwork skills.** [HS-IHS-1.5](#)
- 6 Present a professional image through appearance, behavior, and language.** [HS-IHS-1.6](#)

**Demonstrate safe work practices and follow health & safety policies and procedures to prevent injury and illness.** [HS-IHS-2](#)

- 1 Explain the following agencies' role in healthcare practice:** [HS-IHS-2.1](#)
  - [Occupational Health and Safety Administration \(OSHA\)](#) [HS-IHS-2.1.A](#)
  - [Centers for Disease Control and Prevention \(CDC\)](#) [HS-IHS-2.1.B](#)
  - [U.S. Food and Drug Administration \(FDA\)](#) [HS-IHS-2.1.C](#)
- 2 Demonstrate principles of body mechanics while ambulating, lifting, and positioning patients.** [HS-IHS-2.2](#)
- 3 Demonstrate proper application and use of personal protective equipment (PPE) and personal safety procedures based on OSHA and the CDC during pre/post exposure.** [HS-IHS-2.3](#)
- 4 Identify safety hazards associated with operating equipment in a healthcare setting.** [HS-IHS-2.4](#)
- 5 Identify and explain safety signs, symbols, and labels.** [HS-IHS-2.5](#)

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**6 Research and discuss all safety standards related to occupational exposure to hazardous chemicals, including the use of Safety Data Sheets (SDS).** HS-IHS-2.6

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**7 Illustrate and demonstrate fire safety in a home and healthcare setting.** HS-IHS-2.7

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**8 Demonstrate basic emergency procedures and protocol followed in natural disasters and other emergencies, including identifying a safe location, contacting emergency personnel, following facility protocols, etc.** HS-IHS-2.8

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**Identify how key systems affect services performed and quality of care.** HS-IHS-3

**1 Discuss the history of health services worldwide.** HS-IHS-3.1

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**2 Differentiate healthcare delivery systems and healthcare related agencies such as types of practice settings, specialty medical and dental practices, government agencies, and related nonprofit organizations (ACS, AHA, ARC, March of Dimes, WHO, etc.).** HS-IHS-3.2

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**3 Describe the patient's rights and responsibilities within the healthcare system.** HS-IHS-3.3

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**4 Explain the impact that emerging issues have on the healthcare delivery system such as behavioral/mental health, bioethics, epidemiology, socioeconomics, and information technology.** HS-IHS-3.4

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**5 Discuss common methods of payment for healthcare including insurance, medical coding, premium, co-payment, deductible, etc.** HS-IHS-3.5

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**6 Describe the different types of insurance plans such as private, managed care (HMO, IPA, PPO), and government programs (ACA, Medicaid, Medicare, Tricare, Workers' Compensation).** HS-IHS-3.6

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**Create a Career Path Plan.** HS-IHS-4

**1 Compare careers within the health science career pathways:** HS-IHS-4.1

a Biotechnology Research & Development HS-IHS-4.1.A

b Diagnostic Services HS-IHS-4.1.B

c Health Informatics HS-IHS-4.1.C

d Support Services HS-IHS-4.1.D

e Therapeutic Services HS-IHS-4.1.E

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**2 Research levels of education, credentials, licensing, certifications, pay, and job outlook in various health careers.** HS-IHS-4.2

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**3 Discuss complementary health practices and career opportunities.** HS-IHS-4.3

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**4 Identify and develop entrepreneurial opportunities in healthcare. (See GaDOE CTAE Entrepreneurship Framework.)** HS-IHS-4.4

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**5 Analyze the roles and responsibilities of individual members as part of the health care team, including their ability to promote the delivery of quality health care.** HS-IHS-4.5

- a Identify characteristics of effective teams. HS-IHS-4.5.A
- b Recognize methods for building positive team relationships. HS-IHS-4.5.B
- c Describe the characteristics of an effective leader. HS-IHS-4.5.C
- d Define different types of leadership: autocratic, democratic, and laissez faire. HS-IHS-4.5.D
- e Discuss the roles of an effective leader. HS-IHS-4.5.E
- f Describe an effective team player. HS-IHS-4.5.F
- g Demonstrate effective techniques for managing team conflict. HS-IHS-4.5.G
- h Explain why teamwork is an important part of healthcare and how it improves patient care. HS-IHS-4.5.H

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**6 Analyze personal career goals and develop a career plan.** HS-IHS-4.6

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**7 Create an employability portfolio, including a resume, cover letter, community service, etc.** HS-IHS-4.7

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**Research accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment.** HS-IHS-5

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**1 Differentiate between ethical and legal issues impacting healthcare.** HS-IHS-5.1

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**2 Identify ethical issues and their implications related to healthcare.** HS-IHS-5.2

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**3 Discuss religious, social, and cultural values as they impact healthcare.** HS-IHS-5.3

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**4 Demonstrate respectful and empathetic treatment of ALL patients, clients, and families.** HS-IHS-5.4

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**5 Explain how diversity affects healthcare delivery, including healthcare disparity and social determinants of health (such as zip code, internet disparity, etc.)** HS-IHS-5.5

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**6 Recognize the Code of Ethics for the healthcare professional.** HS-IHS-5.6

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**Demonstrate an understanding of the legal responsibilities, limitations, and implications of healthcare workers within the healthcare delivery setting.** HS-IHS-6

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**1 Analyze legal responsibilities and implications of criminal and civil law regarding abuse, assault, battery, harassment, invasion of privacy, libel, malpractice, negligence, slander, and tort.** HS-IHS-6.1

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**2 Explain the standards for the safety, privacy, and confidentiality of health information, including HIPAA and privileged communication.** HS-IHS-6.2

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**3 Describe advance directives.** HS-IHS-6.3

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**4 Discuss the characteristics of a patient’s basic rights within a healthcare setting.** HS-IHS-6.4

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**5 Compare and contrast informed and implied consent.** HS-IHS-6.5

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**6 Explain the concept of following a scope of practice.** HS-IHS-6.6

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**7 Demonstrate following institutional policies and procedures in reporting incident reports and unethical behaviors that affect the health, safety, and welfare of others.** HS-IHS-6.7

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**8 Describe legal aspects of digital healthcare (privacy, encryption of data, etc.).** HS-IHS-6.8

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**Demonstrate methods of delivering and obtaining information, while communicating effectively with patients, team members and management (in person and/or virtual environments).** HS-IHS-

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**1 Model appropriate verbal and nonverbal communication.** HS-IHS-7.1

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**2 Identify common barriers to communication including physical, psychological, cultural, socioeconomic, and language attributes.** HS-IHS-7.2

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**3 Distinguish between subjective and objective information.** HS-IHS-7.3

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**4 Explain the elements of communication using a sender-receiver model.** HS-IHS-7.4

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**5 Demonstrate age-appropriate, positive communication skills between a patient and a clinician in a variety of scenarios, including conflict resolution and de-escalation methods.** HS-IHS-7.5

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**6 Demonstrate appropriate, positive communication skills between a healthcare employee and a coworker or leader in a variety of scenarios, including providing and receiving constructive criticism.** HS-IHS-7.6

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**7 Demonstrate proper elements of written and electronic communication (spelling, grammar, and formatting).** HS-IHS-7.7

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**8 Use common roots, prefixes, and suffixes to communicate information.** HS-IHS-7.8

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**9 Interpret common medical abbreviations and terminology to communicate information.** HS-IHS-7.9

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**Practice healthy behaviors that promote disease prevention and self-care management.** HS-IHS-8

**1 Promote self-care behaviors of mental and physical health and wellness, including sleep, healthy diet, and regular physical activity.** HS-IHS-8.1

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**2 Research various aspects of mental and behavioral health, including anxiety, depression, substance abuse, and suicide.** HS-IHS-8.2

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**3 Describe public health strategies for prevention of disease (ex: community health education, immunizations, medical/dental/mental health screenings, routine physical exams, self-care behaviors, etc.).** HS-IHS-8.3

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**4 Research complementary and alternative health practices as they relate to wellness and disease prevention (Eastern medicine, holistic medicine, homeopathic medicine, manipulative medicine)** HS-IHS-8.4

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**5 Create a self-care plan.** HS-IHS-8.5

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**Analyze different types of microorganisms and their defining characteristics, and demonstrate steps to reduce the risk of infection or illness by preventing and controlling the spread of microbial growth.** HS-IHS-9

**1 Identify classifications of pathogens: bacteria, fungi, parasites, protozoa, and viruses.** HS-IHS-9.1

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**2 Describe characteristics of microorganisms: aerobic, anaerobic, non-pathogenic, and pathogenic.** HS-IHS-9.2

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**3 Illustrate and describe the chain of infection.** HS-IHS-9.3

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**4 Describe modes of transmission (common means/air/food/water, direct, indirect, HAI, opportunistic, vectors).** HS-IHS-9.4

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**5 Define bloodborne, airborne, contact, and droplet pathogens and the steps of prevention of each.** HS-IHS-9.5

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**6 Analyze ways and incubation time frames that microorganisms are spread using the chain of infection model, including human immunodeficiency virus (HIV) / acquired immunodeficiency syndrome (AIDS), Hepatitis (A, B, C), Tuberculosis, Meningitis, antibiotic resistant microbes, and Herpes Viruses.** HS-IHS-9.6

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**7 Discuss asepsis and the value in ensuring an aseptic field in healthcare.** HS-IHS-9.7

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**8 Compare and demonstrate various physical (cleaning, hand washing, PPE, gloving sterile/nonsterile technique, etc.) and chemical methods (antiseptics, disinfection, sanitization, and sterilization) used to control or prevent microbial growth pre/post exposure per OSHA and CDC guidelines.** HS-IHS-9.8

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**9 Discuss immunizations and the schedule for vaccinations.** HS-IHS-9.9

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**10 Compare and contrast the different forms of immunity.** HS-IHS-9.10

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**11 Explain when isolation precautions are to be followed.** HS-IHS-9.11

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**Demonstrate CPR, First Aid and the AED utilizing current standards.** HS-IHS-10

**1 Analyze differences in pulse and respiratory rates in adult, child, and infant.** HS-IHS-10.1

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**2 Discuss the function of the respiratory and circulatory systems and what happens with these systems during cardiac arrest and then during cardiopulmonary resuscitation.** HS-IHS-10.2

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**3 Demonstrate how to accurately assess vitals, including temperature, pulse, respiration, and blood pressure.** HS-IHS-10.3

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**4 Successfully complete CPR, AED, and First Aid training (emphasizing performance skills in initial assessment, bleeding control, first aid for various shock victims, applying bandages/splints, and assessing/treating burns, poisoning, seizures, insect stings/bites, heat/cold exposure, and syncope) according to American Heart Association or American Red Cross, or other nationally recognized certifying agency.** HS-IHS-10.4

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**Describe the stages of development from birth to adulthood (i.e., neonatal period, infancy, childhood, adolescence/puberty, adulthood, and geriatrics).** HS-IHS-11

**1 Compare and contrast life stages in reference to growth and developmental needs.** HS-IHS-11.1

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**2 Discuss the physical, spiritual, mental, social, and emotional/behavioral health needs throughout the different life stages.** HS-IHS-11.2

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**3 Examine common theories of growth and development (Erickson, Maslow, etc.).** HS-IHS-11.3

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**4 Discuss age-appropriate common healthcare needs.** HS-IHS-11.4

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**5 Identify socioeconomic determinants of health and wellness per each stage of life.** HS-IHS-11.5

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**6 Compare and contrast the stages of grief.** HS-IHS-11.6

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**Utilize information technology applications required within all health career specialties.** HS-IHS-12

**1 Identify components of an electronic health record (EHR) / electronic medical record (EMR).** HS-IHS-12.1

a Diagnostic tests HS-IHS-12.1.A

b History and physical examination HS-IHS-12.1.B

c Medication HS-IHS-12.1.C

d Patient demographics HS-IHS-12.1.D

e Progress notes HS-IHS-12.1.E

f Treatment plan HS-IHS-12.1.F

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**2 Explore different types of health data collection tools such as telehealth and remote patient monitoring hardware/software, wearable medical devices, and phone apps.** HS-IHS-12.2

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**3 Demonstrate the use of proper electronic documentation to demonstrate timeliness, completeness, and accuracy in recording mock scenario data.** HS-IHS-12.3

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**4 Examine national, state, & local information systems' electronic policies, procedures, and regulations regarding to:** HS-IHS-12.4

- a Facility policies HS-IHS-12.4.A
  - b. HIPAA HS-IHS-12.4.B
  - c Medical coding HS-IHS-12.4.C
  - d Social media HS-IHS-12.4.D
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**5 Describe the disciplinary consequences of inappropriate use of health data.** HS-IHS-12.5

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**6 Describe appropriate methods to correct inaccurate information/errors personally entered into an electronic health or electronic medical record (EHR/EMR).** HS-IHS-12.6

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**7 Demonstrate basic digital file organizational skills and information storage.** HS-IHS-12.7

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**8 Demonstrate basic word processing, spreadsheet, and database applications.** HS-IHS-12.8

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**9 Evaluate the validity of web-based resources.** HS-IHS-12.9

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**10 Demonstrate appropriate use of digital communication in a work environment, such as email, text, and social media.** HS-IHS-12.10

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**Apply mathematical computations related to healthcare procedures.** HS-IHS-13

**1 Demonstrate competency using basic math skills and mathematical conversions as they relate to healthcare including:** HS-IHS-13.1

- a metric measurements – centi- deci- kilo-, milli-, micro-, etc. HS-IHS-13.1.A
  - b addition/subtraction, multiplication/division, fractions, averages, percentages, and ratios HS-IHS-13.1.B
  - c standard/metric conversions – height, weight, household measurements, length, volume, temperature HS-IHS-13.1.C
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**2 Analyze diagrams, charts, graphs, and tables to interpret healthcare results.** HS-IHS-13.2

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**3 Demonstrate use of the 24-hour clock/military time.** HS-IHS-13.3

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**Explore how related student organizations are integral parts of career and technology education courses through leadership development, school, and community service**

**1 Research the history of the state supported healthcare science CTSO (Career Technical Student Organization).** HS-IHS-14.1

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**2 Discuss the mission, purpose, motto, colors, official dress, and other distinguishing characteristics of the state supported healthcare science CTSO.** HS-IHS-14.2

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**projects,  
entrepreneurship  
development, and  
competitive events.** HS-

IHS-14

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- 3 Explain how participation in the state supported healthcare science CTSO can promote lifelong responsibility for community service and professional growth and development.** HS-IHS-14.3
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- 4 Create a personal leadership plan to participate in programs, conferences, community service and competitive events on the local, state, and national level that align with the competencies, skills, and knowledge of this course.** HS-IHS-14.4