

# Grades 9, 10, 11, 12

Adopted 2013

## HSF/Health Science Foundations

### **HSF1. Academic Foundations in Health Science: Students will apply the academic subject matter required for proficiency within their area.** HSF1

- a. Relate the knowledge of structures to the functions of the human body. HSF1.A
  - h. Classify the basic structural and functional organization of the human body (i.e., cell, tissue, organ, and system). HSF1.A.7.H
  - h. Use body planes, directional terms, quadrants, and cavities to communicate body locations. HSF1.A.8.H
  - h. Explain the interrelationships between body structures and body functions. HSF1.A.9.H
- b. Identify diseases and disorders which affect the human body and related biomedical therapies. HSF1.B
  - h. Describe prevention, pathology, diagnosis and treatment of diseases and disorders of the human body. HSF1.B.5.H
  - h. Investigate current research related to biomedical therapies for the treatment of human diseases and disorders. HSF1.B.6.H
- c. Use appropriate mathematical tools as they apply to the practice of healthcare. HSF1.C
  - h. Use mathematical computations as required to complete healthcare procedures. HSF1.C.7.H
  - h. Analyze diagrams, charts, graphs and tables to interpret healthcare results. HSF1.C.8.H
  - h. Record time using the 24-hour clock in healthcare settings. HSF1.C.9.H
- d. Use knowledge of life stages to interact effectively with patients, clients, and residents. HSF1.D
  - h. Recognize emotional, physical, intellectual, and social needs specific to each stage of life. HSF1.D.7.H
  - h. Apply knowledge of growth and development in identifying related changes when interacting with patients, clients, and residents. HSF1.D.8.H
  - h. Analyze the effect of unmet needs on individual development through life stages. HSF1.D.9.H
  - h. Assess human needs of life stages to guide interactions with healthcare patients, clients, and residents. HSF1.D.10.H

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**HSF2. Communications within Healthcare Settings: Students will apply various methods of giving and obtaining health care information and communicate effectively both orally and in writing.** HSF2

- a. Apply the concepts of effective verbal and nonverbal communication in the healthcare industry. HSF2.A
  - h. Interpret verbal and nonverbal communication in healthcare, including trends that increase the need for improved communication. HSF2.A.11.H
  - h. Demonstrate techniques for overcoming communication barriers in the healthcare setting. HSF2.A.12.H
  - h. Report subjective and objective information in healthcare communication. HSF2.A.13.H
  - h. Use sender-receiver model in healthcare communication scenarios. HSF2.A.14.H
  - h. Apply active listening skills in healthcare communication. HSF2.A.15.H
- b. Utilize medical terminology appropriate to a specific health science occupation. HSF2.B
  - h. Use roots, prefixes and suffixes to communicate healthcare information using the appropriate medical terminology. HSF2.B.7.H
  - h. Use medical abbreviations to communicate information in healthcare. HSF2.B.8.H
  - h. Use appropriate medical terminology to communicate. HSF2.B.9.H
- c. Develop written communication skills to meet healthcare industry standards. HSF2.C
  - h. Use written communication to produce professional quality healthcare documents. HSF2.C.5.H
  - h. Develop proper procedures for charting and documenting information in a patient healthcare record. HSF2.C.6.H

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**HSF3. Systems in Healthcare: Students will illustrate how a healthcare worker's role fits into a department, an organization, and the overall healthcare environment, identifying how key systems influence services performed and quality of care. HSF3**

- a. Delineate elements and examples of healthcare delivery systems focusing on funding sources, organizational mission and purpose and types of facilities and services. **HSF3.A**
  - h. Compare and contrast various healthcare delivery systems. **HSF3.A.4.H**
  - h. Describe ways in which different healthcare delivery systems interact with one another. **HSF3.A.5.H**
  - h. Evaluate effectiveness of the healthcare delivery system in meeting societal needs. **HSF3.A.6.H**
- b. Explain the factors influencing healthcare delivery systems (aging populations, non-traditional gender roles, financing and culture). **HSF3.B**
  - h. Analyze the influence of these factors on healthcare delivery. **HSF3.B.2.H**
  - h. Predict influences on healthcare delivery systems in future years. **HSF3.B.3.H**
- c. Describe the responsibilities of consumers within the healthcare system (respect rights of healthcare workers and other patients, responsible healthcare habits, becoming an educated advocate for yourself). **HSF3.C**
  - h. Analyze the effects of positive and negative consumer healthcare behavior. **HSF3.C.3.H**
- d. Explain the impact of emerging issues such as technology, epidemiology, bioethics and socioeconomics on healthcare delivery systems. **HSF3.D**
  - h. Analyze the impact of emerging issues on the health care delivery system. **HSF3.D.2.H**
  - h. Predict emerging issues impacting the health care delivery system. **HSF3.D.3.H**
- e. Discuss common methods of payment for healthcare. **HSF3.E**
  - h. Explain eligibility requirements for various healthcare payment programs. **HSF3.E.4.H**
  - h. Compare and contrast various types of healthcare insurance. **HSF3.E.5.H**
  - h. Analyze the effects of healthcare insurance on healthcare delivery. **HSF3.E.6.H**

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**HSF4. Employability Skills for Healthcare Workers: Students will demonstrate how employability skills enhance their employment opportunities and job satisfaction.** HSF4

- a. Demonstrate personal traits of healthcare professionals and positive work behaviors for retaining employment in the healthcare industry. HSF4.A
  - h. Perform a personal assessment, comparing own traits to traits and attitudes desirable for a healthcare professionals. HSF4.A.8.H
  - h. Model the professional standards of dress, appearance and hygiene practices as required in the healthcare environment. HSF4.A.9.H
  - h. Distinguish between examples of appropriate and inappropriate behavior for health care workers. HSF4.A.10.H
  - h. Identify positive work behaviors for retaining employment in healthcare settings. HSF4.A.11.H
- b. Examine healthcare opportunities to develop a quality career plan. HSF4.B
  - h. Analyze the relationship between educational achievements, work experience and career development for healthcare workers. HSF4.B.9.H
  - h. Develop skills and aptitudes required for healthcare careers in each pathway. HSF4.B.10.H
  - h. Describe credentialing requirements for healthcare workers (i.e., licensing, certification, registration). HSF4.B.11.H
  - h. Develop an educational plan to achieve healthcare career goal. HSF4.B.12.H
- c. Demonstrate skills related to seeking and applying for employment to find and obtain a healthcare job. HSF4.C
  - h. Practice skills required for healthcare job acquisition. HSF4.C.5.H
  - h. Use multiple resources to locate healthcare job opportunities connected to career goal or plan. HSF4.C.6.H
  - h. Develop components of a professional portfolio that facilitates progress toward a healthcare career goal. HSF4.C.7.H

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**HSF5. Legal Responsibilities of Healthcare Providers: Students will identify the legal responsibilities, limitations and implications of actions within the healthcare delivery setting, performing duties according to regulations, policies, laws and legislated rights of clients. HSF5**

- a. Interpret and evaluate legal responsibilities and implications in a variety of healthcare settings. HSF5.A
  - h. Compare and contrast values and legal responsibilities of healthcare delivery systems and healthcare workers. HSF5.A.6.H
  - h. Evaluate personal and professional behaviors for working legally in healthcare. HSF5.A.7.H
  - h. Explain ramifications of illegal behaviors on healthcare delivery and healthcare workers. HSF5.A.8.H
- b. Examine and assess standards for Health Insurance Portability and Accountability Act (HIPAA). HSF5.B
  - h. Describe procedures and protocols used in healthcare settings to protect the privacy of patient information. HSF5.B.6.H
  - h. Identify circumstances in which confidential information may legally be shared in healthcare settings. HSF5.B.7.H
  - h. Identify potential consequences of non-compliance with Health Insurance Portability and Accountability Act standards and provisions. HSF5.B.8.H
- c. Defend patient responsibilities and rights in the healthcare setting. HSF5.C
  - h. Assess the role of advance directives in supporting patient rights and responsibilities. HSF5.C.4.H
  - h. Describe the Patient's Bill of Rights. HSF5.C.5.H
  - h. Follow the regulations governing informed consent. HSF5.C.6.H
- d. Abide by and support current laws governing worker rights and responsibilities. HSF5.D
  - h. Explain laws governing harassment and scope of practice within the healthcare work environment. HSF5.D.2.H
  - h. Demonstrate professional behaviors that support the legal rights and responsibilities of healthcare workers. HSF5.D.3.H

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**HSF6. Ethical Practices for Healthcare Environments: Students will apply accepted ethical practices with respect to cultural, social and ethic differences within the healthcare environment and perform quality healthcare delivery. HSF6**

- a. Develop practices within the school, community and healthcare setting that respect ethical boundaries. HSF6.A
  - h. Differentiate between ethical and legal issues impacting healthcare. HSF6.A.8.H
  - h. Recognize situations in which ethics influence healthcare. HSF6.A.9.H
  - h. Maintain professional and ethical boundaries between healthcare providers and patients. HSF6.A.10.H
  - h. Demonstrate ethical behaviors in the community and in a healthcare setting. HSF6.A.11.H
- b. Demonstrate respect and appreciation for diversity of individuals within the healthcare setting. HSF6.B
  - h. Discuss ways in which diverse beliefs and values impact the delivery of healthcare. HSF6.B.7.H
  - h. Demonstrate respectful and empathetic treatment for all individuals within the healthcare setting. HSF6.B.8.H
  - h. Develop professional relationships with all co-workers within the healthcare setting. HSF6.B.9.H

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**HSF7. Safety within Healthcare Settings: Students will analyze the existing and potential hazards to clients, co-workers, and self, working to prevent injury or illness through safe work practices and follow health and safety policies and procedures.** HSF7

- a. Explain principles and practices of infection control in healthcare. HSF7.A
  - h. Analyze the chain of infection. HSF7.A.7.H
  - h. Explain the principles of infection control and corresponding methods for controlling the spread and growth of pathogens. HSF7.A.8.H
  - h. Compare and contrast regular hand washing, antiseptic hand washing and antiseptic rubs. HSF7.A.9.H
- b. Describe personal safety procedures and equipment used in healthcare settings. HSF7.B
  - h. Apply personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations. HSF7.B.4.H
  - h. Demonstrate proper body mechanics techniques. HSF7.B.5.H
- c. Analyze environmental safety practices within the healthcare setting. HSF7.C
  - h. Evaluate environmental safety practices used in healthcare settings. HSF7.C.4.H
  - h. Develop a healthcare environmental safety plan. HSF7.C.5.H
  - h. Apply safety techniques in the healthcare work environment. HSF7.C.6.H
- d. Discuss common safety hazards impacting the healthcare industry. HSF7.D
  - h. Comply with safety signs, symbols, labels, and Material Safety Data Sheets (MSDS) in healthcare settings. HSF7.D.5.H
  - h. Explain the potential implications of ignoring unsafe situations or mishandling hazardous materials in healthcare settings. HSF7.D.6.H
- e. Examine emergency procedures and protocols within the healthcare setting. HSF7.E
  - h. Evaluate fire safety protocols for healthcare settings. HSF7.E.6.H
  - h. Develop principles of basic emergency medical response. HSF7.E.7.H
  - h. Explain procedures and protocols related to bioterrorism emergencies. HSF7.E.8.H
  - h. Investigate emergency response plans for addressing natural disasters and catastrophic emergencies. HSF7.E.9.H

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**HSF8. Teamwork Skills for Healthcare Workers: Students will identify the roles and responsibilities of individual members as part of the healthcare team, including their ability to promote the delivery of quality healthcare, interacting effectively and sensitively with all members of the healthcare team.** HSF8

- a. Identify roles and responsibilities of healthcare team members. HSF8.A
  - h. Explain roles and responsibilities of healthcare team members. HSF8.A.7.H
  - h. Demonstrate characteristics of effective healthcare teams. HSF8.A.8.H
  - h. Analyze importance of roles and responsibilities of various healthcare positions. HSF8.A.9.H
- b. Recognize characteristics of effective team relationships. HSF8.B
  - h. Model methods for building positive healthcare team relationships. HSF8.B.7.H
  - h. Apply effective techniques for managing conflict in healthcare teams. HSF8.B.8.H
  - h. Incorporate positive interpersonal skills to work cooperatively with diverse healthcare team members. HSF8.B.9.H
- c. Demonstrate leadership skills to accomplish organizational goals in a healthcare setting as well as a local HOSA chapter. HSF8.C
  - h. Critique performances of leaders in health science, HOSA and healthcare roles. HSF8.C.7.H
  - h. Determine ways to improve personal leadership skill set in a healthcare setting. HSF8.C.8.H
  - h. Participate in HOSA to strengthen personal leadership skill set. HSF8.C.9.H
  - h. Describe effective healthcare management styles. HSF8.C.10.H
  - h. Determine appropriate management style for a given healthcare situation. HSF8.C.11.H
  - h. Collaborate with healthcare organization(s) to implement service learning project. HSF8.C.12.H
  - h. Evaluate the effectiveness of service learning project in meeting a health-related community need. HSF8.C.13.H

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**HSF9. Health Maintenance Practices: Students will analyze the fundamentals of wellness and the prevention of disease processes, practicing preventive health behaviors among clients.** HSF9

- a. Apply health science concepts to identify behaviors that promote health and wellness. HSF9.A
  - h. Model personal hygiene behaviors that promote health and wellness. HSF9.A.7.H
  - h. Analyze the effects of poor eating habits, inactivity, tobacco and alcohol use on health status. HSF9.A.8.H
  - h. Analyze the effects of personal sleep habits on health status. HSF9.A.9.H
  - h. Analyze the interrelationship of intellectual, emotional, social and physical health as they relate to personal health and wellness. HSF9.A.10.H
- b. Describe and apply strategies for the prevention of diseases including health screenings and examinations. HSF9.B
  - h. Examine methods for addressing client cultural practices that counteract disease prevention. HSF9.B.6.H
  - h. Advocate for the importance of health screenings, immunizations, checkups and other examinations that are necessary to maintain overall health and wellness. HSF9.B.7.H
  - h. Differentiate between communicable and non-communicable diseases, including influenza, asthma, AIDs and epilepsy. HSF9.B.8.H
- c. Analyze complementary (alternative) health practices as they relate to wellness and disease prevention. HSF9.C
  - h. Discuss effective uses of complementary health practices as evidenced by research. HSF9.C.5.H
  - h. Compare the accessibility and appropriate use of professional alternative health practice services. HSF9.C.6.H

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**HSF10. Technical Skills: Students will apply technical skills common to each health science career pathway, demonstrating skills and knowledge as appropriate.** HSF10

- a. Apply diagnostic procedures for measuring and recording vital signs including the normal ranges. HSF10.A
  - h. Differentiate between normal and abnormal vital sign values. HSF10.A.7.H
  - h. Explain the purpose and procedure for taking temperature, pulse, respirations and blood pressure. HSF10.A.8.H
  - h. Measure and accurately document oral, axillary, tympanic and temporal temperatures; pulse; respiration; blood pressure; as well as height and weight. HSF10.A.9.H
- b. Obtain training or certification in skills necessary to function as a healthcare professional. HSF10.B
  - h. Assess emergency situations and respond appropriately to varied emergencies that may occur during daily life. HSF10.B.7.H
  - h. Complete training and certification for basic first aid including cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO). HSF10.B.8.H
  - h. Obtain training and/or certification for a specific healthcare occupation appropriate to their identified career pathway. HSF10.B.9.H
- c. Apply standard precautions to prevent the spread of infection. HSF10.C
  - h. Demonstrate hand washing and alcohol-based hand rub procedures for healthcare setting. HSF10.C.9.H
  - h. Educate others on the use of respiratory hygiene and cough etiquette procedures. HSF10.C.10.H
  - h. Correctly apply and remove a mask, gown and gloves. HSF10.C.11.H
  - h. Apply appropriate standard precautions with all patients. HSF10.C.12.H
- d. Apply health informatics skills to maintain accurate patient records. HSF10.D
  - h. Organize and retrieve files from alphabetic and numeric filing systems. HSF10.D.7.H
  - h. Note documentation errors and correct clearly. HSF10.D.8.H
  - h. Accurately document subjective and objective information. HSF10.D.9.H

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**HSF11. Health Information Technology for Healthcare Applications: Students will use information technology applications required within all career specialties. They will demonstrate use as appropriate to healthcare applications.** HSF11

- a. Demonstrate Health Information Management knowledge and skills. HSF11.A
  - h. Identify types of data collected and protocols for collecting healthcare data (i.e., statistical data sheet, medical history, insurance forms). HSF11.A.4.H
  - h. Use health record data collection tools (i.e., input screens, document templates). HSF11.A.5.H
  - h. Compare and contrast the elements and organization of paper medical records and electronic health records. HSF11.A.6.H
  - h. Document patient information to produce records that reflect timeliness, completeness and accuracy. HSF11.A.7.H
  - h. Adhere to information systems policies and procedures as required by national, state, local and organizational entities. HSF11.A.8.H
- b. Support privacy and confidentiality of health information. HSF11.B
  - h. Apply policies and procedures for access to and disclosure of protected health information. HSF11.B.6.H
  - h. Describe the consequences of inappropriate use of health data in terms of disciplinary action. HSF11.B.7.H
  - h. Use techniques and procedures that limit the viewing of computer screen and mobile devices by other individuals when working in a healthcare setting. HSF11.B.8.H
- c. Apply basic computer literacy skills to health science occupations. HSF11.C
  - h. Describe appropriate computer and mobile applications used to communicate healthcare information. HSF11.C.13.H
  - h. Accurately enter data into an electronic health record. HSF11.C.14.H
  - h. Demonstrate protocols for correcting own errors that have been entered into an electronic health record (EHR). HSF11.C.15.H
  - h. Use technology and information systems for healthcare tasks (i.e., databases, scheduling, patient monitoring, communication). HSF11.C.16.H
  - h. Explore digital technology applications used in the delivery of healthcare (i.e., Barcodes, RFID, QR codes, digital imaging, computer information, bioinformatics). HSF11.C.17.H
  - h. Demonstrate file organization and information storage procedures used in healthcare settings. HSF11.C.18.H
  - h. Use basic word processing, spreadsheet and database applications for communicating healthcare information. HSF11.C.19.H

- h. Use technology to access and distribute data and other information (i.e., paging system, cell phone, fax, email). [HSF11.C.20.H](#)
- h. Evaluate the validity of web-based medical information. [HSF11.C.21.H](#)
- h. Demonstrate appropriate use of electronic communications when transmitting health information. [HSF11.C.22.H](#)