Health Science 1 – Pacing Guide

Unit Topic	Pace	SC Health Science I Standard(s)	Activities
1. History & Trends in Healthcare • History of healthcare • Medical advances	2 weeks	**Describe** healthcare history and medical advances.	• Healthcare Timeline Activity • Identify cost containment and wellness measures • Discuss home health and geriatric medicine • Discuss the telemedicine trend • Discuss alternative forms of medical therapy • Diagnosis of the week • Ethical Situation of Week
2. Healthcare Systems • Health care providers • Regulatory bodies • Organizational structure • Insurance	2 weeks	**Identify and compare** healthcare delivery systems (public, private, government). a. Types of practice settings - acute care, ambulatory care, behavioral and mental health services, home care, long-term care, medical and dental practices b. Specialty medical and dental practices - cosmetic surgery, pulmonology, surgical, orthodontics c. Government - VA, CDC, FDA, OSHA, PHS d. Related organizations - American Cancer Society, AHA, American Red Cross, March of Dimes, WHO **Identify** the importance of an organizational structure in healthcare.	• Compare/contrast types of healthcare delivery systems • Discuss various regulatory bodies and their role in the healthcare delivery system • Complete a concept map of the hierarchical levels of organizational structure • Describe the major types of insurance and pros and cons of each • Diagnosis of the week • Ethical situation of the week

3. The Patient & Teamwork • Effective communication, verbal and nonverbal • Teamwork • Communication barriers • Recording and reporting • Stress & time management • Problem solving • Cultural diversity • Personal qualities	4 weeks	**Interpret** and model verbal and nonverbal communication. **Recognize and interpret** elements of communication using a sender-receiver-message-feedback model. **Apply and practice** speaking and active listening skills. **Use** proper elements of written and electronic communication (spelling, grammar, and formatting). **Prepare** examples of technical and informative writing. **Demonstrate** appropriate use of digital communication in a work environment, such as email, text, and social media. **Use** appropriate medical terminology to communicate information in both oral and written forms utilizing common root prefixes and suffixes to communicate. **Explain and Evaluate** roles and responsibilities of team members. a. Examples of healthcare teams b. Responsibilities of team members c. Benefits of teamwork **Respect** interdisciplinary roles of team members and act responsibly as a team member. **Recognize** characteristics of effective teams and methods for building positive team relationships. a. Defined roles b. Common purpose c. Effective communication d. Effective leadership	• Case studies on communication and teamwork • Identify common barriers to communications • Learn about correct grammar, spelling, etc. on medical communication forms • Discuss roles and responsibilities of team members • Identify characteristics of positive team qualities • Identify what qualities make an effective leader • Practice managing conflict • Discuss different cultures and their norms • List the personal qualities of a healthcare professional • Compare and contrast the various forms of insurance • Diagnosis of week • Ethical situation of week

		e. Measurable processes and outcomes f. Mutual respect g. Shared goals **Collaborate** with others to formulate team objectives. **Explore and analyze** attributes and attitudes of an effective leader: a. Characteristics (interpersonal skills, focused on results, positive) b. Types (autocratic, democratic, laissez faire) c. Roles (sets vision, leads change, manages accountability) **Apply** techniques for managing team conflict (negotiation, assertive communication, gather the facts, clear expectations, mediation). Recognize methods for building positive team relationships (such as: mentorships and teambuilding).	
4. Career Exploration	4 weeks and ongoing	**Compare** careers within the health science career pathways (diagnostic services, therapeutic services, health informatics, support services, or biotechnology research and development). **Research and evaluate** levels of education, credentialing requirements, employment trends in health professions (opportunities, workplace environments and career earnings etc.). **Initiate** development of components of a personal portfolio (healthcare project, writing sample, work-based learning, oral presentation, service learning, credentials, technology, and leadership experience). **Demonstrate** professional and leadership skills by actively participating	Student will keep a notebook of various research activities to be completed throughout the year: • Careers and qualifications for different healthcare fields • Qualities of a successful employee • Identify the different healthcare pathways and the possible careers in each • Research educational requirements, average pay, professional requirements of different career paths • Diagnosis of week • Ethical issue of the week

5. Ethics • Landmark cases • Regulations • Laws • Client rights • Policies • Customer service • Advance directives	2 weeks	in learning experiences through HOSA Future Health Professionals, student organization (either as a member or as a participant in some of their sponsored activities). **Identify** and discuss religious and cultural values as they impact healthcare (such as; ethnicity, race, religion, gender) and demonstrate respectful and empathetic interactions and treatment of all patients/clients within a diverse population (such as: customer service, patient satisfaction, civility).	• Analyze and debate the various ethical issues in healthcare • Diagnosis of week • Ethical issue of week
6. Medical Math • Metric system • Roman numerals • Military time	2 weeks	**Identify** components and solve computations of the metric and household systems of measure. **Calculate** mathematical conversions related to healthcare such as height, weight/mass, length, volume, temperature, and household measurements. **Demonstrate** recording time using 24-hour clock/military time. **Recognize and convert** traditional numbers to roman numerals.	• Perform various medical calculations, in English and metric • Demonstrate understanding of military time • Recognize the Roman numeral notations • Diagnosis of week • Ethical issue of week

7. Medical Terminology • Prefixes, suffixes, abbreviations • Basic medical terminology • Body regions	2 weeks	**Define and recognize** entry level Medical terminology and terms related to healthcare.	• Memorize prefixes and suffixes • Memorize various anatomy terms • Utilize above knowledge to deduce the meaning of medical terms • List and describe the various body regions and body systems • Diagnosis of week • Ethical issue of week
8. Safety Practices • Personal safety • Environmental safety • Safety symbols • Fire safety • Basic emergency response • Basic first aid	4 weeks	**Infection Control** a. **Explain** principles of infection transmission. b. **Identify** classifications of pathogens to include bacteria, fungi, parasites, protozoa, viruses c. **Describe** characteristics of microorganisms to include aerobic, anaerobic, non-pathogenic, pathogenic d. **Recognize** chain of infection **Differentiate methods of controlling the spread and growth of pathogens.** a. Standard precautions to include handwashing, gloving, personal Protective Equipment (PPE), environmental cleaning **Personal Safety** **a**. Apply personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations.	• Demonstrate and explain proper handwashing procedure • List the different types of microorganisms and the properties of each • Explain the proper procedure to eliminate different types of germs from different surfaces • Diagnosis of week • Ethical issue of week

| | | b. **Demonstrate** and apply the use of personal protective equipment (PPE). **Environmental Safety** a. **Apply** safety techniques in the work environment to include ergonomics, safe operation of equipment, and patient/client/employee safety measures. **Common Safety Hazards** a. **Observe** all safety standards related to occupational exposure to hazardous chemicals standard (safety data sheets [SDS]). b. **Comply** with safety signs, symbols, and labels. **Emergency Procedures and Protocols** a. **Practice** fire safety in a healthcare setting. b. **Apply** principles of basic emergency response in natural disasters and other emergencies (safe location, contact emergency personnel, follow facility protocols). | • Describe all safety procedures and the purpose of each • Know when to use different safety procedures • Identify safety symbols • Read and interpret MSDS sheets • Apply basic first aid according to best practices • Diagnosis of week • Ethical issue of week |
| **9. Health Maintenance Practices** • Nutrition • Weight control • Exercise • Wellness • Alternative health practices | 2 weeks | **Apply** behaviors that promote health and wellness. a. Promote behaviors of health and wellness to include exercise, nutrition, relationships, sleep habits, stress management, weight control b. Examine various aspects of behavioral health to include anxiety, depression, substance abuse, suicide **Describe** strategies for prevention of diseases to include community health education outreach programs, immunizations, medical, dental, and mental health screenings, routine | • Describe the importance of using proper health maintenance procedures • Compare and contrast the different types of alternative health practices • Diagnosis of week • Ethical issue of week |

		physical exams, stress management 3. **Investigate** complementary and alternative health practices as they relate to wellness and disease such as acupuncture, eastern medicine, holistic medicine, homeopathy, manipulative therapies, natural therapies	
10. Technical Skills	2 weeks	**Explore** procedures for measuring and recording vital signs including the normal ranges to include blood pressure, temperature, oxygen saturation, pain, pulse, respirations, Snellen eye chart. **Introduction to CPR/**first aid procedures **and Stop The Bleed Training**. (Certification optional in Health Science 1)	• Clinical hands-on labs & demonstrations
11. Information Technology • Communication via technology • Basic computer skills • File organization • Information storage • Electronic medical records • Validity of web resources	2 weeks	**Communicate** using technology (fax, e-mail, and Internet) to access and distribute data and other information (including assignments and online assessments). **Demonstrate** appropriate usage of email and social media in a work environment (such as: work- related communications, personal texting on own time, appropriate language and content, use full language sentences **Recognize** technology applications and key technology principles used in healthcare. **Adhere** to information systems policies, procedures, and regulations as required by national, state, and local entities.	• Demonstrate working knowledge of basic computer skills • Describe the various types of medical records and the proper procedures for maintaining each • List different types of data collected in various healthcare settings • Evaluate the validity of web-based resources • Diagnosis of week • Ethical issue of week

		Evaluate the validity of web-based resources.	
12. Let's Get Ready for Work! • Employability soft skills • Create a resume • Learn how to search for jobs and fill out an application	2 weeks	**Identify** employability skills as a career ready member of the healthcare team a. Acceptance of criticism b. Competence c. Dependability d. Discretion e. Empathy f. Enthusiasm g. Honesty h. Initiative i. Patience j. Responsibility k. Self-motivation l. Tact m. Team player n. Willingness to learn **Apply** employability skills as a member of the healthcare team. a. Chain of command b. Communication Skills c. Correctgrammar d. Decision making e. Flexibility f. Initiative g. Loyalty h. Organization i. Positive attitude j. Problem Solving k. Professional characteristics l. Promptness and preparedness m. Responsibility n. Scope of practice o. Teamwork p. Time Management q. Willingness to learn r. Work Ethic	• Create a current resume for portfolio • Complete a basic job application • Practice job interview skills • List best practices when preparing for a job interview • Diagnosis of week • Ethical issue of week

		Summarize and demonstrate professional standards and characteristics as they apply to hygiene, dress, language, confidentiality and behavior.	