

# Health Science 2 - Pacing Guide

Unit Topic	Pace	SC Health Science I Standard(s)	Activities
<p><b>1. Embedded Throughout Whole Curriculum</b></p> <p><b>2. Communications &amp; Teamwork</b></p> <p>Demonstrate methods of delivering and obtaining information while communicating effectively.</p> <p>Identify roles and responsibilities of individual members as part of the healthcare team.</p>	<p>3 weeks</p>	<ul style="list-style-type: none"> <li>1. Teamwork</li> <li>2. Medical Terminology</li> <li>3. Analyze charts, graphs, tables</li> <li>4. Medical writing</li> <li>5. Medical ethics</li> <li>6. HOSA</li> <li>7. Communication case studies</li> </ul> <p><b>Distinguish</b> subjective and objective information.</p> <p><b>Recognize and interpret</b> elements of written and electronic communication (spelling, grammar, formatting, and confidentiality).</p> <p><b>Prepare</b> examples of technical, informative and creative writing.</p> <p><b>Document, report, and communicate</b> in a straightforward, understandable, accurate, and timely manner (such as: how to correct errors, read labels, report information and data, and provide hand-off reports).</p> <p><b>Apply and practice</b> active speaking and listening skills.</p> <p><b>Identify and Adapt</b> communication styles to accommodate common</p>	<ul style="list-style-type: none"> <li>1. Subjective vs objective observations</li> <li>2. Medical documentation</li> <li>3. HIPPA laws</li> </ul>

	<p>barriers to communication in healthcare.</p> <ul style="list-style-type: none"> <li>a. Physical disabilities <ul style="list-style-type: none"> <li>• Aphasia</li> <li>• Hearing loss</li> <li>• Impaired vision</li> <li>• Developmental level</li> </ul> </li> <li>b. Psychological barriers <ul style="list-style-type: none"> <li>• Attitudes</li> <li>• Bias</li> <li>• Prejudice</li> <li>• Stereotyping</li> </ul> </li> </ul> <p><b>Modify</b> communication to meet the needs of the patient/client and be appropriate to the situation.</p> <p><b>Describe</b> appropriate interactions with patients throughout various stages of psychosocial development.</p> <p><b>Interpret</b> common medical abbreviations to communicate information.</p> <p><b>Demonstrate</b> appropriate use of digital communication in a work environment, such as email, text, and social media.</p> <p><b>Act</b> responsibly as a team member, including gaining practice employing leadership skills when acting as team leader.</p> <p><b>Collaborate</b> with others to formulate team objectives and accomplish team goals utilizing the characteristics of effective teamwork.</p> <p><b>Apply</b> effective techniques for managing team conflict.</p> <p><b>Apply</b> principles of teamwork.</p> <p><b>Evaluate</b> why teamwork is an important part of healthcare and how it improves patient care.</p>	
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<p><b>3. Academic Foundation</b></p> <p>Understand human anatomy, physiology, common diseases and disorders, and medical math principles.</p>	<p>8 weeks</p>	<p><b>Demonstrate</b> the ability to analyze diagrams, charts, graphs, and tables to interpret healthcare results.</p> <p><b>Demonstrate</b> competency in basic math skills and conversions as they relate to healthcare.</p> <p>a. The Metric System, i.e. centi-, milli-, <b>deci-</b>, <b>micro-</b>, and kilo-</p> <p>b. Mathematical (average, ratios, fractions, percentages, addition, subtraction, multiplication, division). c.</p> <p>c. Conversions (height, weight/mass, length, volume, temperature, household measurements)</p> <p>d. Perform mathematical applications to determine vital sign applications and basic pharmacology equations.</p> <p><b>Identify</b> basic levels of organization of the human body.</p> <p><b>Identify</b> the major human body systems, their basic function and associated diseases.</p> <p><b>Identify</b> directions and planes of the body.</p> <p><b>Describe</b> biomedical therapies as they relate to the prevention, pathology, and treatment of disease.</p> <ul style="list-style-type: none"> <li>• Gene testing</li> <li>• Gene therapy</li> <li>• Cloning</li> <li>• Stem cell research</li> </ul>	<ol style="list-style-type: none"> <li>1. 2 weeks - Basic Math Skills <ul style="list-style-type: none"> <li>• Metric &amp; English Conversions</li> <li>• Basic Math</li> <li>• Vital signs</li> <li>• Basic pharmacology</li> </ul> </li> <li>2. 6 weeks - Human Anatomy <ul style="list-style-type: none"> <li>• Levels of organization</li> <li>• Human body systems <ul style="list-style-type: none"> <li>○ Special emphasis on immune system</li> </ul> </li> <li>• Diseases and disorders (see NCHSE stds)</li> <li>• Biomedical therapies (see NCHSE stds)</li> </ul> </li> </ol>
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<p><b>4. Systems</b></p> <p>Identify how key systems affect services performed and quality of care.</p>	<p>2 weeks</p>	<p><b>Explain</b> factors influencing healthcare delivery systems. (Example: Affordable Care Act, aging populations etc.)</p> <p><b>Discuss</b> common methods of payment for healthcare.</p> <ul style="list-style-type: none"> <li>a. Private health insurance plans</li> <li>b. Managed Care <ul style="list-style-type: none"> <li>• Health Maintenance Organization (HMO)</li> <li>• Independent Practice Association (IPA)</li> <li>• Preferred Provider Organization (PPO)</li> </ul> </li> <li>c. Government programs</li> <li>d. Affordable Care Act (ACA) <ul style="list-style-type: none"> <li>• Medicaid</li> <li>• Medicare</li> <li>• Tricare</li> <li>• Workers' Compensation</li> </ul> </li> </ul> <p><b>Analyze</b> healthcare economics and related terms.</p> <ul style="list-style-type: none"> <li>• The history and role of health insurance and employer/employee benefits</li> <li>• Fundamental terms related to health insurance <ul style="list-style-type: none"> <li>○ Claim</li> <li>○ Coinsurance</li> <li>○ Co-payment</li> <li>○ Fraud</li> <li>○ HIPAA</li> <li>○ Premium</li> <li>○ Deductible</li> </ul> </li> </ul> <p><b>3. Examine</b> the healthcare consumer's rights and responsibilities within the healthcare system.</p> <ul style="list-style-type: none"> <li>a. Self-advocacy</li> <li>b. Compliance</li> <li>c. Patient's Bill of Rights</li> </ul>	<ul style="list-style-type: none"> <li>1. Factors affecting delivery system</li> <li>2. Payment &amp; reimbursement</li> <li>3. Consumer responsibilities and bill of rights</li> <li>4. Emerging issues and effect of systems</li> </ul>
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<p><b>5. Legal Responsibilities</b></p> <p>Describe legal responsibilities, limitations, and implications on healthcare worker actions.</p>	<p>3 weeks</p>	<p><b>4. Assess and explain</b> the impact of emerging issues such as technology, epidemiology, genetics, bioethics, and socioeconomics on healthcare delivery systems.</p> <p><b>Explain</b> practices that could result in malpractice, liability, and/or negligence (to include civil law, and criminal law. Summarize laws governing harassment, labor, and scope of practice.</p> <ol style="list-style-type: none"> <li>1. Abuse</li> <li>2. Assault</li> <li>3. Battery</li> <li>4. Contract</li> <li>5. Invasion of privacy</li> <li>6. Libel</li> <li>7. Malpractice</li> <li>8. Negligence</li> <li>9. Slander</li> <li>10. Tort</li> </ol> <p><b>Apply</b> procedures for accurate documentation and record keeping (for example, legally correcting errors on medical records, etc.)</p> <p><b>Describe and apply</b> standards for safety, privacy, and confidentiality of the Health Insurance Portability and Accountability Act (HIPAA privileged communication).</p> <p><b>Describe advance directives,</b> informed consent and explore the Patient's and Residents Bill of Rights.</p> <p><b>Summarize</b> the essential characteristics of a patient's basic rights within a healthcare setting.</p> <p><b>Differentiate</b> informed and implied consent.</p>	<ol style="list-style-type: none"> <li>1. Healthcare law &amp; infractions</li> <li>2. Legal requirements for medical records</li> <li>3. Advance directives</li> <li>4. Ethical issues</li> <li>5. Incident reports</li> <li>6. Stages of death and dying</li> </ol>
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<p><b>6. Ethics</b></p> <p>Understand accepted ethical practices with respect to cultural, social, and ethnic differences within the healthcare environment.</p>	<p>2 weeks</p>	<p><b>Explain</b> laws governing harassment.  <b>Describe</b> the concept of scope of practice.  <b>Utilize</b> procedures for reporting activities and behaviors that affect the health, safety, and welfare of others (incident report).  <b>Differentiate</b> between ethical and legal issues impacting healthcare.</p> <ul style="list-style-type: none"> <li>• <b>Recognize and identify</b> ethical and legal issues and their implications related to healthcare (such as organ donation, in vitro fertilization, euthanasia, scope of practice, ethics committee, etc.)</li> </ul> <p><b>Discuss</b> bioethical issues related to healthcare.  <b>Apply</b> ethical behaviors in healthcare including personal, professional, and organizational ethics.  <b>Discuss and utilize</b> procedures for reporting activities and behaviors that affect health, safety, and welfare of others (such as an incident report)  <b>Identify</b> stages of death and dying.</p>	
<p><b>7. Safety Practices</b></p> <p>Identify existing and potential hazards to clients, co-workers, and self. Employ safe work practices and follow health and safety policies</p>	<p>4 weeks</p>	<p><b>Explain</b> principles of infection transmission.  <b>Describe</b> mode of transmission to include common vehicle (air, food, water), direct, healthcare-associated infections (nosocomial), indirect, vectors, opportunistic.</p>	<ol style="list-style-type: none"> <li>1. Different hazards and their signs</li> <li>2. Preventing injury</li> <li>3. Infection control</li> <li>4. Regulations relating to safety</li> <li>5. First Aid Procedures / BLS / Stop the Bleed</li> </ol>

<p>and procedures to prevent injury and illness.</p>	<p>2 weeks</p>	<p><b>Differentiate</b> methods of controlling the spread and growth of microorganisms. (aseptic vs. sterile technique, antisepsis, disinfection, sterilization, standard vs. transmission-based precautions, and blood-borne pathogens).</p> <ul style="list-style-type: none"> <li>• Asepsis <ul style="list-style-type: none"> <li>i. Sanitization</li> <li>ii. Antisepsis</li> <li>iii. Disinfection</li> <li>iv. Sterile technique</li> <li>v. Sterilization</li> </ul> </li> <li>• Standard precautions <ul style="list-style-type: none"> <li>i. Handwashing</li> <li>ii. Gloving</li> <li>iii. Personal Protective Equipment (PPE)</li> <li>iv. Environmental cleaning</li> </ul> </li> <li>• Isolation precautions <ul style="list-style-type: none"> <li>i. Transmission-based contact</li> </ul> </li> <li>• Bloodborne pathogen precautions</li> <li>• Vaccinations</li> </ul> <p><b>Apply</b> personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations</p> <p><b>Demonstrate</b> principles of body mechanics and patient safety during transfers, ambulation, and positioning.</p> <ul style="list-style-type: none"> <li>i. Ambulating</li> <li>ii. Lifting</li> <li>iii. Positioning</li> </ul> <p><b>Demonstrate and apply</b> the use of personal protective equipment (PPE).</p>	<p>1. Demonstrate and practice recording:</p>
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<p><b>8. Technical Skills</b></p> <p>Apply and demonstrate technical skills and knowledge common to health career specialties.</p>		<p><b>Demonstrate</b> procedures for measuring and recording vital signs including recognition of normal ranges, data interpretation, reporting of abnormal values, and documentation of values received.</p> <ul style="list-style-type: none"> <li>• Blood pressure</li> <li>• Temperature</li> <li>• Oxygen saturation</li> <li>• Pain</li> <li>• Pulse</li> <li>• Respirations</li> </ul> <p><b>Apply</b> skills to obtain Heartsaver or BLS training or certification in adult, child, and infant cardiopulmonary resuscitation (CPR) and automated external defibrillator (AED).</p> <p><b>Demonstrate</b> special health care skills as needed in the medical field for several different career paths, such as, but not limited to, Laboratory, Dental, Medical Assisting, Nurse Assisting, Physical Therapy, Patient Care Technician, Allied Health occupations or Office Management/Business and Accounting. The specific skills and care paths chosen may differ as to the teacher’s professional certification area.</p>	<p>a. Height &amp; weight  b. Blood pressure  c. Temperature  d. Pulse &amp; respirations  e. Eye charts</p>
<p><b>9. Health Maintenance Practices</b></p> <p>Differentiate between wellness and disease.  Promote disease</p>	<p>1 week</p>	<p><b>Discuss</b> physical, mental, social and behavioral development and its impact on healthcare.</p>	<p>1. Discuss healthy habits  2. Discuss disease prevention strategies  3. Investigate different health practices</p>



<p>prevention and model healthy behaviors.</p> <p><b>10. Information Technology Applications</b></p> <p>Apply information technology practices common across health professions.</p>	<p>3 weeks</p>	<p><b>Identify</b> records and files common to the healthcare setting including electronic health record - EHR).</p> <ul style="list-style-type: none"> <li>• Diagnostic tests</li> <li>• History and physical</li> <li>• Medications</li> <li>• Patient demographics</li> <li>• Progress notes</li> <li>• Treatment Plan</li> </ul> <p><b>Identify</b> and <b>differentiate</b> types and content of health records (including EHR), i.e. patient, pharmacy, laboratory, radiology, etc.</p> <p><b>Recognize</b> technology applications in healthcare including file storage.</p> <p><b>Create</b> documentation in the health record (EHR/MHR) that reflects timeliness, completeness, and accuracy while adhering to information systems policies and procedures at the local, state, and national and organizational level</p> <ul style="list-style-type: none"> <li>• <b>Use</b> health record data collection tools (such as input screens, document templates)</li> <li>• <b>Understand</b> the principle and <b>demonstrate</b> the appropriate methods to correct inaccurate information/errors personally entered into EHR/MHR, such as adding, clarifying, and correcting information.</li> </ul>	<ol style="list-style-type: none"> <li>1. Discuss appropriate use of different communication technologies</li> <li>2. Discuss medical record and file organization</li> <li>3. Discuss different types of technology used in healthcare.</li> <li>4. Evaluate validity of web-based resources</li> </ol>
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<p><b>11. Employability Skills</b></p> <p>Use employability skills to enhance employment opportunities and job satisfaction.</p>	<p>2 weeks</p>	<p><b>Explore</b> different types of health record data collection tools such as patient</p> <ul style="list-style-type: none"> <li>• Medical wearable devices</li> <li>• Patient monitoring equipment</li> <li>• Phone application</li> <li>• Telemedicine/telehealth</li> </ul> <p><b>Identify</b> common policies and procedures for proper access, disclosure and protection of personal information such as: passwords, administrative safeguards, database security.</p> <ul style="list-style-type: none"> <li>• <b>Apply</b> fundamentals of privacy and confidentiality policies and procedures (HIPAA).</li> <li>• <b>Adhere</b> to information systems policies, procedures, and regulations as required by national, state, and local entities. (Such as: Health Information Technology Act [HITECH Act], American Recovery and Reinvestment Act [ARRA]).</li> <li>• <b>Describe</b> the consequences of inappropriate use of health data in terms of disciplinary action.</li> </ul> <p><b>Participate</b> in job-based scenarios (role play, case studies, job shadowing) that allow for application of personal traits, attitudes, and employability skills desirable in a member of the healthcare team. (such as: dealing with the tardy employee,</p>	<ol style="list-style-type: none"> <li>1. Discuss employability and soft skills</li> <li>2. Evaluate levels of credentialing</li> <li>3. Create sample resume and cover letter</li> <li>4. Fill out job application</li> <li>5. Create portfolio</li> </ol>
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		<p>satisfying the unhappy patient, conflict resolution with a fellow team member)</p> <p><b>Demonstrate</b> process and strategies for obtaining and retaining employment, (proper use of social media, personal networking, soft skills, job sites, internships).</p> <p><b>Develop and expand</b> components of a personal portfolio (letter of introduction, resume, healthcare project, writing sample, work-based learning, oral presentation, service learning, credentials, technology, and leadership experience).</p> <p><b>Showcase</b> personal traits, attitudes, and employability skills desirable in a member of the healthcare team through participation in healthcare work-based learning experiences (guest speakers, virtual tours, job shadowing, virtual job shadowing, blood drives, community service projects, HOSA, etc.).</p> <ul style="list-style-type: none"> <li>• Chain of command</li> <li>• Communication Skills</li> <li>• Decision making</li> <li>• Flexible</li> <li>• Organization</li> <li>• Problem Solving</li> <li>• Scope of practice</li> <li>• Time Management</li> <li>• Work Ethic</li> </ul> <p><b>Expand</b> upon components of a personal portfolio (letter of introduction, resume, healthcare project, writing sample, work-based learning, oral presentation, service learning, credentials, technology, and leadership experience).</p>	
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