Tennessee CTE

Health Science Education

Career Planning	**1** Synthesize information found in news media, professional journals, and trade magazines to create a report and/or presentation on the historical evolution of healthcare in the United States. Use a timeline or other graphic to illustrate major contributors and developments linking them with modern health care innovations and practices. 1
	2 Prepare a paper or electronic career profile for at least one occupation in each of the five health science career areas (biotechnology research, therapeutic services, support services, health informatics, and diagnostic services), to be included in the student's health science portfolio. Draw on print and online sources, such as government occupational profiles, and/or interviews with health care professionals to capture at minimum the following: a. Job description b. Roles and responsibilities c. Essential knowledge and skills needed for the career d. Programs or paths of study available to reach occupational goals, beginning with high school and proceeding through postsecondary e. Required personality traits for the career f. Licensure and credentialing requirements g. Non-educational job requirements such as physical fitness tests, minimum age, and psychological evaluations h. Photographs or digital prints of each career (refer to HOSA Medical Photography guidelines) 2
	3 Summarize professional traits and soft skills (such as leadership, ethical responsibility, and time management) required of healthcare professionals in twenty-first century healthcare systems. Compare professional traits and soft skills to self-identified traits and soft skills determining areas for growth. 3
	4 Define ethics and legal terms related to health care including, but not limited to: a. Law b. Ethics c. Abuse d. Assault and Battery e. Slander f. Libel g. False Imprisonment h. Malpractice i. Invasion of Privacy j. Advanced Directives Create a chart that includes a definition of the term, and a brief description of how each might be demonstrated in a health care setting. Use the chart in order to participate in a class discussion about notable medicolegal cases. 4
Healthcare Systems	**5** Identify the different types of facilities and options for health care delivery in the United States health care delivery system. Compare and contrast the United States health care delivery system with those of two other countries that have high efficiency scores in healthcare as rated by agencies such as the World Health Organization. Create a report and/or presentation highlighting these comparisons. 5

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	6 **Differentiate among the methods of payment for healthcare in the United States including private and state or federal insurance. Define insurance terms including, but not limited to premium, deductible, co-pay, and benefit then use these terms to discuss the influence of increased costs on health care decisions made by health care consumers.** 6
Body Function and Structure	7 **Break down each body system into a list of organs and describe the function of each system. Identify cavities and quadrants listing organs contained in each. Define homeostasis then use at least two systems and illustrate how they work together to maintain homeostasis.** 7
	8 **Evaluate factors that impact human growth and development related to the biophysical and mental/cognitive areas of infants, toddlers, school age children, adolescents, and young, middle age, and senior adults. Create an artifact that illustrates how each of these factors contributes to the health and wellness of individuals.** 8
	9 **Develop a patient health education presentation surrounding one of the following wellness issues: optimal health, exercise and fitness, healthy eating and nutrition, sleep, stress or other mental health issues, drug/alcohol/tobacco use and abuse, body decoration, sexually transmitted infections, or cyber safety. Include signs and symptoms of the behavior and/or disease, major physical concerns associated with it, preventive measures, treatments, and support systems. Include at least three resources.** 9
Infection Control/Medical Microbiology	10 **Define chain of infection and provide strategies for how to break each part of the chain to prevent the spread of infection. Conduct a short research project on the effects of practices of sanitation and disinfection on health and wellness, examining the implications for public health. Synthesize findings in a written, oral, or digital presentation, citing evidence from the investigation.** 10
	11 **Understand the principles of and successfully perform the following skills to prevent or curtail the spread of pathogenic and non-pathogenic organisms:** 11 a Hand washing 11A b Gloving 11B
Foundational Healthcare Skills	12 **Differentiate between verbal and nonverbal communication and identify common barriers. List specific techniques for effective communication and evaluate how different cultures and generations attach different meanings to various gestures, intonations, and other communication techniques. Model/role-play effective communication techniques for interactions with different cultures and generations.** 12
	13 **Investigate current safety practices in healthcare including, but not limited to fire, electrical, chemical, and back safety. Research and create a safety training for new health care employees in oral, written, or digital format.** 13

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14 **Review health topics surrounding complementary and alternative medicine such as acupuncture, biofeedback, and herbal treatments. Develop a public service announcement or academic poster presentation intended to inform consumers or health professionals about the specific topic. Include general information, purported benefits, use in the United States, side effects and/or risks, relevant research, cost, and links to more information. Cite evidence from print and digital resources such as research journals, the National Institute of Health, the Mayo Clinic, and Medline Plus.** 14

15 **Understand principles of and successfully perform skills related to Emergency Medicine, incorporating rubrics from the American Heart Association or American Red Cross for the following:** 15

- a Basic First Aid care of bleeding and wounds 15A
- b Basic First Aid care for burns 15B
- c Basic First aid for bone and joint injuries 15C

16 **Understand principles of and successfully perform skills related to Dental Assisting, incorporating rubrics from textbooks or clinical standards of practice for the following:** 16

- a Identifying teeth using the Federation Dentaire International Numbering System 16A
- b Demonstrate brushing and flossing techniques 16B

17 **Understand principles of and successfully perform skills related to Medical Laboratory Assisting, incorporating rubrics from textbooks or clinical standards of practice for the following:** 17

- a Obtain a culture specimen and streak an agar plate (this may be simulated on paper) 17A

18 **Understand principles of and successfully perform skills related to Medical Assisting and Nursing Assisting incorporating rubrics from textbooks or clinical standards of practice for the following:** 18

- a Temperature, pulse, respiration and blood pressure assessment 18A
- b Weighing an ambulatory patient 18B

19 **Understand principles of and successfully perform skills related to Physical Therapy and Athletic Training incorporating rubrics from textbooks or clinical standards of practice for the following:** 19

- a Ambulation with crutches or cane 19A
- b Administering cold applications 19B
- c Assessment of athlete with injured ankle or wrist 19C
- d Basic stretching exercises 19D

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20 **Understand principles of and successfully perform skills related to the Pharmacy Technician incorporating rubrics from textbooks or clinical standards of practice for the following:** 20

- a Accurately weigh dry compounds using balance or electronic scales or accurately measure liquid using graduated cylinders, pipettes, and/or syringes 20A
- b Verify prescription 20B

21 **Understand principles of and successfully perform skills related to the ECG Technician incorporating rubrics from textbooks or clinical standards of practice for the following:** 21

- a Assess O2 level using a pulse oximeter 21A
- b Simulate accurate placement of electrodes for a 5-lead ECG on a chart or on a CPR manikin 21B