



Scope and Sequence

Cluster:	Health Science		
Course Name:	Practicum in Health Science (2-3 credits)		
Course Description:	<p>(1) The Practicum is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience.</p> <p>(2) To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, and communicate effectively. Students should recognize that quality health care depends on the ability to work well with others.</p> <p>(3) The health science industry is comprised of diagnostic, therapeutic, health informatics, support services, and biotechnology research and development systems that function individually and collaboratively to provide comprehensive health care. Students should identify the employment opportunities, technology, and safety requirements of each system. Students are expected to apply the knowledge and skills necessary to pursue a health science career through further education and employment.</p> <p>(4) Professional integrity in the health science industry is dependent on acceptance of ethical and legal responsibilities. Students are expected to employ their ethical and legal responsibilities and limitations and understand the implications of their actions.</p>		
Course Requirements:	This course is recommended for students in Grades 11-12. Recommended prerequisites: Health Science and Biology.		
Equipment & Supplies	<p>Required: Single head stethoscope, Teaching stethoscopes, Sphygmomanometers (aneroid/mercuric), Thermometers (digital IV AC/thermoscope), Clock (with second hand), meter sticks or metric rulers, Manikin (adult and infant), Wheelchair, blankets, pillows, linens (draw sheet, fitted sheet, flat sheet, pillow case), anatomical charts, isolation gowns, isolation kit, gloves, masks, triangular bandages, 4 inch gauze squares, 2 inch Kling bandage rolls, 4 inch Kling, padded board splints, adhesive tape, elastic bandages, scissors, hand scrub/germicidal soap, alcohol preps, bandage scissors, non-sterile gloves, sterile gloves, overbed table, bedside table, towels (bath, hand, washcloth), wash basin, emesis basin, bedpan, urinal, catheters, urine hat container, cannula, walker, crutches, safety goggles, x-ray light box, reagent strips, acetest, goniometer, snellen eye chart, scales with height measure, wraps (paper-sterile, cloth-nylon), autoclave tape, assorted instruments, trays, computers, monitors, telephone, fax machine, voice mail system, tv/dvdplayer, internet access, email</p> <p>Recommended: Stethoscopes (dual head, specialized), Manikin - child, hospital beds, anatomical models - various parts of the body, human torso, skeleton, hamper, oxygen masks and tubing, portable oxygen, splints (leg and arm), IV bag and tubing, IV pole with wheels, backboards, spinal immobilization devices - cervical, dental molds, dental trays, dental instruments, X-ray mounts, sports tape, microscopes, simulated blood typing kits, prepared slides of blood, culture media, incubator, loops, glucometer, refractometer, centrifuge, urinometer, clinitest, slides, cover strips, test tubes, stains for blood and bacteria, distilled water, EKG machine, autoclave, transcription machine, multimedia projector</p>		
Units of Study	Knowledge and Skills	Student Expectations	Resources
I. Preparation for Practicum			
A. Infection Control B. Safety	(6) The student employs a safe environment to prevent hazardous situations. The student is expected to:	<p>(A) integrate regulatory standards such as standard precautions and safe patient handling;</p> <p>(B) respond to emergencies consistent with the student's level of training such as fire and disaster drills;</p> <p>(C) evaluate hazardous materials according to the material safety data sheets; and</p>	<p>Textbooks specific to an occupational area http://www.texashste.com/ http://www.cdc.gov/ http://www.osha.gov/ www.americanheart.org www.american.redcross.org</p>

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		(D) apply principles of infection control and body mechanics in all aspects of the health science industry.	
II. Communication			
	(1) The student applies mathematics, science, English language arts, and social sciences in health science. The student is expected to:	(A) interpret data from various sources in formulating conclusions;	Textbooks specific to an occupational area Texas HSTE website http://www.texashste.com/teachers/index.htm ,
		(B) compile information from a variety of sources to create a technical report; and	
		(C) plan, prepare, and deliver a presentation.	
	(2) The student uses verbal and non-verbal communication skills. The student is expected to:	(A) accurately describe and report information, according to facility policy, observations, and procedures;	
		(B) demonstrate therapeutic communication skills to provide quality care; and	
		(C) employ therapeutic measures to minimize communication barriers.	
III. Teamwork/Teambuilding			
	(5) The student analyzes the role of a health science team member. The student is expected to:	(A) participate in team teaching and conflict management such as peer mediation, problem solving, and negotiation skills;	Textbooks specific to an occupational area http://www.hosa.org/ http://wilderdom.com/games/InitiativeGames.html http://www.studygs.net/peermed.htm http://www.pbs.org/inthemix/educators/lessons/schoolviol1/index.html
		(B) refine consensus-building techniques; and	
		(C) engage in leadership opportunities in the community.	
IV. Ethical and Legal Responsibilities			
	(4) The student employs ethical behavior standards and legal responsibilities. The student is expected to:	(A) appraise individual ethical and legal behavior standards according to professional regulatory agencies;	Textbooks specific to an occupational area http://www.utsouthwestern.edu/utsw/home/stars/index.html
		(B) integrate legal and ethical behavior standards such as Patient Bill of Rights, Advanced Directives, and the Health Insurance Portability and Accountability Act into the scope of practice; and	
		(C) critique court cases related to professional liability and ethics.	
V. Anatomy & Physiology and Pathophysiology			
	(1) The student applies mathematics, science, English language arts, and social sciences in health science. The student is expected to:	(D) examine the environmental factors that affect homeostasis;	Textbooks specific to an occupational area Texas HSTE website
		(E) relate anatomical structure to physiological functions;	
		(F) distinguish atypical anatomy and physiology in the human body systems;	
		(G) implement scientific methods in preparing clinical case studies; and	
		(H) compare and contrast health issues in the global society.	
VI. Multi-Competent Health Care Worker			
	(8) The student implements skills in monitoring individual health status during therapeutic or diagnostic procedures. The student is expected to:	(A) describe pre-procedural preparations;	Textbooks specific to an occupational area Texas HSTE website
		(B) observe therapeutic or diagnostic procedures;	
		(C) identify care indicators of health status; and	
		(D) record health status according to facility protocol.	

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VII. Career Preparation and Employability			
	(3) The student implements the knowledge and skills of a health science professional necessary to acquire and retain employment. The student is expected to:	(A) demonstrate proficiency in medical terminology and skills related to the health care of an individual; (B) research academic requirements for professional advancement such as certification, licensure, registration, continuing education, and advanced degrees; (C) describe the steps necessary for entrepreneurship in a free enterprise system; (D) develop new problem-solving strategies based on previous knowledge and skills; and (E) evaluate performance for continuous improvement and advancement in health science.	http://www.texasotjobs.org Textbooks specific to an occupational area Texas HSTE website Community speakers HR Department
	(7) The student explores the knowledge and skill levels necessary for advancing in the health science professions. The student is expected to:	(A) Interpret knowledge and skills that are transferable among health science professions; (B) Plan academic achievement for advancement in the health science industry; and (C) Analyze emerging technologies in the health science industry.	
	(9) The student documents technical knowledge and skills. The student is expected to:	(A) update a professional portfolio to include: (i) technical skill competencies; (ii) licensures or certifications; (iii) awards and scholarships; (iv) extended learning experiences such as community service and active participation in career and technical student organizations and professional organizations; (v) abstract of technical competencies mastered during the practicum; (vi) résumé; (vii) samples of work; and (viii) evaluation from the practicum supervisor; and (B) present the portfolio to all interested stakeholders such as in a poster presentation.	

Resources: Books

Textbooks specific to an occupational area

Resources: Web Sites

Texas H.O.T. Jobs	www.texasotjobs.org
Science Teacher Access to Resources at Southwestern (STARS)	http://www8.utsouthwestern.edu/utsw/home/stars/index.html
Centers for Disease Control	www.cdc.gov
Health Occupations Students of America	www.hosa.org
Texas Health Science Curriculum Resources	http://www.texashte.com/teachers/index.htm
Team Building Activities	http://wilderness.com/games/InitiativeGames.html
Peer Medication	http://www.studyqs.net/peermed.htm
A Primer on Peer Medication	http://www.pbs.org/inthemix/educators/lessons/schoolviol1/index.html