



## Allied Health Therapeutic Services

PEIMS Code: N1302120

Abbreviation: ALLHTS

Grade Level(s): 10-11

Award of Credit: 1.0

### Approved Innovative Course

- Districts must have local board approval to implement innovative courses.
- In accordance with Texas Administrative Code (TAC) §74.27, school districts must provide instruction in all essential knowledge and skills identified in this innovative course.
- Innovative courses may only satisfy elective credit toward graduation requirements.
- Please refer to [TAC §74.13](#) for guidance on endorsements.

### Course Description:

Allied Health Therapeutic Services builds on the concepts from Principles of Allied Health and allows students to apply the concepts, knowledge, and skills necessary for healthcare careers in an allied health field. This course will focus on anatomy and physiology, medical terminology, and career skills and exploration associated with the healthcare industry standards for respiratory therapy, physical and occupational therapy, radiological imaging, and pharmaceuticals. This course is designed for students who are interested in pursuing careers in the allied health fields.

### Essential Knowledge and Skills:

- (a) General Requirements. This course is recommended for students in grades 10 and 11. Recommended prerequisites: Principles of Allied Health. Students shall be awarded one credit for successful completion of this course.
- (b) Introduction.
  - (1) Career and technical education instruction provide content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.
  - (2) The Health Science Career Cluster focuses on planning, managing and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.
  - (3) Allied Health Therapeutic Services builds on the concepts from Principles of Allied Health and allows students to apply the concepts, knowledge, and skills necessary for a health career in an allied health field. This course will focus on anatomy and physiology, medical terminology, and career skills and exploration associated with healthcare industry standards for respiratory therapy, physical and occupational therapy, radiological imaging, and pharmaceuticals. This is the Level II course for the medical

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therapy program of study in the health science career cluster. This course is designed for students who are interested in pursuing careers in the allied health fields.

- (4) To pursue a career in the healthcare 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.
  - (5) 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, recognize limitations, and understand the implications of their actions.
  - (6) Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.
  - (7) Statements that contain the word “including” reference content that must be mastered, while those containing the phrase “such as” are intended as possible illustrative examples.
- (c) Knowledge and Skills.
- (1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:
    - (A) communicate ideas in a clear, concise, and effective manner;
    - (B) model how to cooperate, contribute, and collaborate as a member of a team; and
    - (C) model soft skills associated with employment in a healthcare therapeutic career such as critical thinking, communication, collaboration, creativity, reliability, time management, and productivity; and
    - (D) identify academic preparation and skills necessary for employment as defined by the health science industry.
  - (2) The student expresses appropriate verbal and nonverbal communication skills. The student is expected to:
    - (A) differentiate components of effective and non-effective communication; and
    - (B) model effective communication skills, including conflict-resolution skills, for responding to the needs of individuals in a diverse society.
  - (3) The student demonstrates professional and safety requirements of the allied health workplace. The student is expected to:
    - (A) summarize and distinguish among the roles of allied health professionals on an integrated health care team;
    - (B) analyze the consequences of using inappropriate medical terminology in health care;
    - (C) identify hospital-acquired pathologies and the processes used to prevent their spread;
    - (D) research Safety Data Sheet (SDS) guidelines used in health care settings;
    - (E) differentiate between various uses of personal protective equipment (PPE) with hospital-specific pathologies such as methicillin resistant Staphylococcus aureus,

- vancomycin-resistant Enterococcus, tuberculosis, and coronavirus disease (COVID-19);
  - (F) demonstrate various lifting techniques to transport patients out of a hospital setting in the event of a mass evacuation or fire; and
  - (G) describe how vital signs present with different pathologies.
- (4) The student researches medical laws and ethics associated with allied healthcare. The student is expected to:
- (A) compare the standards, including those set forth by the Health Insurance Portability and Accountability Act (HIPAA), for privacy, safety, and confidentiality of health information;
  - (B) examine principles of ethical behavior and related issues such as the breach of confidentiality;
  - (C) research ethical issues related to health care technologies;
  - (D) distinguish among issues related to malpractice, negligence, and liability; and
  - (E) model understanding of diversity and cultural health care practices
- (5) The student researches and evaluates the knowledge and skills required in respiratory therapy occupations. The student is expected to:
- (A) model the use of the pulse oximeter and recognize normal and abnormal values associated with breathing;
  - (B) compare the different cardiopulmonary pathologies of pulmonary diseases such as asthma, emphysema, and COVID-19;
  - (C) differentiate among standard precautions necessary for pulmonary diseases including asthma, emphysema, tuberculosis, influenza, pneumonia, and COVID-19;
  - (D) identify the relevant anatomy and physiology associated with the practice of respiratory therapy; and
  - (E) differentiate among roles of respiratory therapists in various work settings such as long-term care facilities, hospitals, home health, sleep clinics, and medical offices.
- (6) The student researches and evaluates the knowledge and skills required in speech pathology occupations. The student is expected to:
- (A) differentiate among communication, speech, language, and hearing;
  - (B) summarize the structural basis of speech production and hearing;
  - (C) identify healthy verbal and nonverbal communication development;
  - (D) describe the developmental building blocks for appropriate speech, language, and hearing development;
  - (E) analyze and apply the terminology related to human communication, such as speech sound production, fluency (stuttering), voice, language, hearing, hearing loss, pragmatics, swallowing, and cognition;

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- (F) identify the psychological bases of communication and the linguistic and cultural influences on interpersonal communication;
  - (G) describe the role of the speech-language pathologist in discriminating between healthy speech and language development and hearing disorders;
  - (H) identify the relevant anatomy and physiology associated with the practice of speech pathology; and
  - (I) differentiate roles of speech pathologist in various work settings such as nursing and residential care facilities, hospitals, educational settings, and private practices.
- (7) The student researches and evaluates radiological imaging occupations. The student is expected to:
- (A) identify pathologies seen in imaging techniques;
  - (B) use appropriate medical terminology relating to different types of imaging techniques such as chest radiographs and magnetic resonance imaging (MRI);
  - (C) identify the technology used in diagnostic imaging;
  - (D) identify anatomy and physiology associated with the practice of various radiological imaging occupations, such as X-ray technician or MRI technician;
  - (E) differentiate roles of individuals working in radiological imaging occupations such as radiological technologists, cardiovascular technologists, and MRI technicians/technologists; and
  - (F) differentiate among various work settings for individuals in radiological imaging occupations such as inpatient and outpatient settings.
- (8) The student researches and evaluates the skills required in physical therapy occupations. The student is expected to:
- (A) differentiate among types of musculoskeletal injuries including sprains, strains, and fractures;
  - (B) identify different types of splinting techniques for upper and lower extremities;
  - (C) assess passive and active range of motion on the upper and lower extremities;
  - (D) demonstrate proper application of moist heat and cold packs;
  - (F) demonstrate the proper use of mobility aids such as walkers, canes, or crutches;
  - (G) identify and use medical terminology and abbreviations commonly used in physical therapy;
  - (H) identify relevant anatomy and physiology associated with the practice of physical therapy;
  - (I) differentiate roles of the physical therapist in various work settings such as acute care, inpatient rehabilitation, or outpatient therapy; and
  - (J) describe the contraindications for imaging modalities.
- (9) The student researches and evaluates the skills required in occupational therapy careers. The student is expected to:

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- (A) explain how occupational therapy overlaps with other allied health occupations;
  - (B) differentiate the roles of occupational therapists in various work settings such as acute care, inpatient rehabilitation, or outpatient therapy;
  - (C) describe types of adaptive equipment used in occupational therapy such as bed side commode, tub transfer bench, built-up utensils, weighted utensils, sock aid, reacher/grabber, long handled sponge, long handled shoehorn, leg lifter and dressing stick;
  - (D) identify and explain medical terminology and abbreviations commonly used in occupational therapy; and
  - (E) identify anatomy and physiology associated with the practice of occupational therapy.
- (10) The student describes the principles and role of pharmacology in allied health occupations. The student is expected to:
- (A) identify and explain common medical abbreviations used in a prescription order;
  - (B) explain the required components of a prescription order;
  - (C) identify drugs commonly used in the respiratory, physical therapy, speech pathology, and occupational therapy fields;
  - (D) calculate dosages based on patient weight;
  - (E) identify common over-the-counter medications used for pain management and respiratory disorders.
- (11) The student analyzes strategies for the prevention of disease. The student is expected to
- (A) develop a wellness plan for a common disease and/or injury;
  - (B) research and analyze local public health issues;
  - (C) analyze access to quality health care in local community and describe implications of community health; and
  - (D) explain the process and components of creating a local public health campaign to promote wellness.

### Recommended Resources and Materials:

Pagliarulo, Michael A. *Introduction to Physical Therapy*. St. Louis, MO: Mosby, 2016.

Pierson, Frank M., and Sheryl L. Fairchild. *Principles & Techniques of Patient Care*. St. Louis, MO: Saunders Elsevier, 2008.

Simmers, Louise, Karen Simmers-Nartker, and Sharon Simmers-Kobelak. *Diversified Health Occupations*. Australia: Delmar Cengage Learning, 2009.

American Association for Respiratory Care: <https://www.aarc.org/>

American Occupational Therapy Association: <https://www.apta.org/>

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American Physical Therapy Association: <https://www.apta.org/>

American Speech-Language-Hearing Association- Speech Language Pathology: <https://www.asha.org/>

Be Something Amazing: <https://www.besomethingamazing.com/>

Bureau of Labor Statistics - Healthcare Occupations: <https://www.bls.gov/ooh/healthcare/home.htm>

Careers in Health Care: <https://www.careersinhealthcare.com/>

National Board for Respiratory Care: <https://www.nbrc.org/>

Texas CTE Website Workforce Section (purple box): <https://www.txcte.org/teachers>

Texas Society of Respiratory Care: <https://www.tsrc.org/>

### Recommended Course Activities:

- Create a presentation on chemicals, from simple to complex, used in hospitals.
- Demonstrate use of the appropriate PPE for hospital specific pathologies.
- Research diseases of hospital settings acquired through inappropriate use of PPE.
- Review and analyze vital signs under stress.
- Complete or certify activities associated with CPR or First Aid Certification
- Assess range of motion using a goniometer
- Create a health campaign to address local public health issues to promote wellness

### Suggested methods for evaluating student outcomes:

- Exit tickets
- Projects
- Quizzes
- Tests
- Oral and virtual presentations
- Interviews with professionals in the allied healthcare field
- Mentor/internship evaluations

### Teacher qualifications:

An Assignment for Allied Health Therapeutic Services is allowed with one of the following certificates:

- Health Science 6-12.
- Health Science Technology Education 8-12.
- Vocational Health Occupations.
- Vocational Health Science Technology.

Recommended related work experience to include two years of experience in the corresponding allied health fields such as physical therapy, occupational therapy, speech pathology, respiratory therapy, pharmacology, or athletic training.

### Additional information: