

# Medical Therapeutics

<b>Primary Career Cluster:</b>	Health Science
<b>Course Contact:</b>	<a href="mailto:CTE.Standards@tn.gov">CTE.Standards@tn.gov</a>
<b>Course Code(s):</b>	C14H15
<b>Prerequisite(s):</b>	<i>Health Science Education (C14H14)</i>
<b>Credit:</b>	1
<b>Grade Level:</b>	10-11
<b>Focused Elective Graduation Requirements:</b>	This course satisfies one of three credits required for an elective focus when taken in conjunction with other Health Science courses.
<b>POS Concentrator:</b>	This course satisfies one out of two required courses to meet the Perkins V concentrator definition, when taken in sequence in the approved program of study.
<b>Programs of Study and Sequence:</b>	This is the second or third course in the <i>Nursing Services</i> and <i>Therapeutic Services</i> programs of study.
<b>Aligned Student Organization(s):</b>	HOSA: <a href="http://www.tennesseehosa.org">http://www.tennesseehosa.org</a>
<b>Coordinating Work-Based Learning:</b>	Teachers are encouraged to use embedded WBL activities such as informational interviewing, job shadowing, and career mentoring. For information, visit <a href="https://www.tn.gov/education/career-and-technical-education/work-based-learning.html">https://www.tn.gov/education/career-and-technical-education/work-based-learning.html</a> .
<b>Promoted Tennessee Industry Credentials:</b>	Credentials are aligned with postsecondary and employment opportunities and with the competencies and skills that students acquire through their selected program of study. For a listing of promoted student industry credentials, visit <a href="https://www.tn.gov/education/career-and-technical-education/student-industry-certification.html">https://www.tn.gov/education/career-and-technical-education/student-industry-certification.html</a>
<b>Teacher Endorsement(s):</b>	577, 720
<b>Required Teacher Certifications/Training:</b>	None
<b>Teacher Resources:</b>	<a href="https://www.tn.gov/content/dam/tn/education/ccte/cte/cte_resource_health_science.pdf">https://www.tn.gov/content/dam/tn/education/ccte/cte/cte_resource_health_science.pdf</a> Best for All Central: <a href="https://bestforall.tnedu.gov/">https://bestforall.tnedu.gov/</a>

## Course at a Glance

CTE courses provide students with an opportunity to develop specific academic, technical, and 21<sup>st</sup> century skills necessary to be successful in career and in life. In pursuit of ensuring every student in Tennessee achieves this level of success, we begin with rigorous course standards which feed into intentionally designed programs of study.

Students engage in industry relevant content through general education integration and experiences such as career & technical student organizations (CTSO) and work-based learning (WBL). Through these experiences, students are immersed with industry standard content and technology, solve industry-based problems, meaningfully interact with industry professionals, and use/produce industry specific, informational texts.

### Using a Career and Technical Student Organization (CTSO) in Your Classroom

CTSOs are a great resource to put classroom learning into real-life experiences for your students through classroom, regional, state, and national competitions, and leadership opportunities. Below are CTSO connections for this course, note this is not an exhaustive list.

- Participate in CTSO Fall Leadership Conference to engage with peers by demonstrating logical thought processes and developing industry specific skills that involve teamwork and project management
- Participate in contests that highlight job skill demonstration; interviewing skills; community service activities, extemporaneous speaking, and job interview
- Participate in leadership activities such as Organizational Leadership, Prepared Speaking, HOSA Service Project, Creative Problem Solving, and HOSA Service Project.

For more ideas and information, visit Tennessee HOSA at <http://www.tennesseehosa.org/>

### Using Work-based Learning in Your Classroom

Sustained and coordinated activities that relate to the course content are the key to successful work-based learning. Possible activities for this course include the following. This is not an exhaustive list.

- **Standards 1.1-1.3** | Interview a therapeutic medicine professional to determine how HIPAA's ethical/legal tenets affect the patient's rights for all aspects of care.
- **Standards 2.1-2.2** | Invite a patient advocate to discuss communication barriers related to patient rights.
- **Standards 3.1-3.4** | Shadow a health care quality improvement professional to observe the use of collected data in quality improvement initiatives.
- **Standards 4.1-4.3** | Observe and/or assist with a patient history and physical
- **Standards 6.1-6.4** | Partner with a health care professional to create a health education plan for recommended health screenings.

For more ideas and information, visit <https://www.tn.gov/education/career-and-technical-education/work-based-learning.html>.

## Course Description

*Medical Therapeutics* is an applied course designed to prepare students to pursue careers in therapeutic and nursing services. Upon completion of this course, a proficient student will be able to identify careers in therapeutics services; assess, monitor, evaluate, and report patient/client health status; and identify the purpose and components of treatments.

## Program of Study Application

This is the second or third course in the *Nursing Services* and *Therapeutic Services* programs of study. For more information on the benefits and requirements of implementing these programs in full, please visit the Health Science website at <https://www.tn.gov/education/career-and-technical-education/career-clusters/cte-cluster-health-science.html>

### Implementation options are as follows:

- Option 1: Medical Therapeutics taught as Level Two course
- Option 2: Medical Therapeutics taught as Level Three course

### Core standards are required for both options above:

1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2, 3.3, 3.4, 4.1, 5.1, 6.1, 6.2, 6.3, 6.4

### Additional standards:

Option 1: 4.2

Option 2: 4.3

## Course Standards

### 1. Therapeutic Careers

- 1.1 Career pathways and personal career aptitudes: Differentiate **career pathways** within the Therapeutics cluster. Describe the **scope of practice and the essential knowledge and skills** required for these careers. Complete one or more **career aptitude surveys**, analyze the results, and relate **how personal career aptitudes align with careers in therapeutics**.
- 1.2 Laws and ethics impacting professional practice: Analyze **specific laws and ethical issues that impact professional practice** such as confidentiality, informed consent, and patient self-determination. Determine **how these laws and ethical issues impact healthcare professionals**.
- 1.3 Members of the patient care team and team-based care: Differentiate between the **common members of the patient care team** summarizing the individual roles and the interrelatedness of the team members as it relates to quality patient care. Explain the **concept of team-based care** to a patient.

### 2. Health Care Communication

- 2.1 Communication and quality patient care: Evaluate **factors that contribute to effective communication** and explain **how these factors contribute to the development of**

**quality patient care.** Demonstrate **practices to effectively manage communication barriers, cultural differences, and clients with special needs.**

2.2 Verbal and non-verbal communication: Differentiate between **verbal and nonverbal communication** when interacting with patients. Examine **specific techniques for effective communication** and evaluate how different cultures attach different meanings to communication techniques.

### 3. Facility Guidelines for Practice

3.1 Electronic Health Records: Compare the **advantages and disadvantages of Electronic Health Records (EHR).** Anticipate **barriers and challenges associated with the large-scale move to EHR in healthcare institutions.**

3.2 Patient confidentiality: Explain the differences in privacy of individually identifiable health information, protected health information (PHI), and security rule. Review case studies to identify violations, preventive measures, and penalties that might be levied for violations.

3.3 Patient care and quality improvement data: Relate the use of collected data by hospital information systems to the use of collected data in quality improvement initiatives. Determine how data related to sex, race and ethnicity is used to reduce disparities in different types of care such as cardiac care or cancer treatment.

3.4 Equipment safety, quality control, and evaluation: Examine **policies and procedures related to therapeutic equipment safety, quality control monitoring, and evaluation.** Synthesize information to instruct a classmate on the **importance of safety practices** and the implementation of quality control processes according to policy.

### 4. Patient Assessment and Treatment

4.1 Medical terminology: Demonstrate an understanding of **basic medical terminology** to monitor patient/client status through:

- a. History and Physical, including but not limited to: family, environmental, social, and mental history
- b. Brief Head to Toe Assessment noting normal vs. abnormal findings
- c. Vital Signs Assessment (VS)
- d. Height/weight, BMI /Calculation
- e. Specimen Collection

4.2 Anatomy, physiology, and pathophysiology: Outline the **gross normal structure and function of all body systems** and summarize appropriate medical text(s) to relate **signs and symptoms of common diseases and disorders** associated with each.

- a. integumentary and lymphatic systems
- b. nervous and musculoskeletal systems
- c. cardiovascular and respiratory systems

- d. digestive and urinary systems
- e. reproductive and endocrine systems

4.3 Therapeutic procedures and treatments: Relate a **therapeutic procedure/treatment** to a **specific body system**. Describe the anatomy involved with the treatment, reason for treatment, health care professionals assisting or performing the treatment and patient education, including precautions that should occur prior to the treatment or procedure.

## 5. Fundamentals of Patient Care

- 5.1 Patient care skills: Demonstrate **concepts and skills** of the following in a clinical/lab setting:
- a. Patient Positioning
  - b. Transfers and Ambulation (including injury prevention and body mechanics)
  - c. O2 Assessment and Administration (including fire safety)
  - d. BLS (Basic Life Support)

## 6. Fundamentals of Wellness and Disease Prevention

- 6.1 Infection control: Demonstrate mastery of **concepts and skills related to asepsis, Universal Precautions, sanitation, disinfection, and sterilization** for patient/client care settings citing the **rationale** for each concept/skill using standards and guidelines from the Centers for Disease Control and Prevention (CDC) and the Occupational Safety and Health Administration (OSHA) in a lab/clinical setting.
- 6.2 Normal flora and homeostasis: Correlate the function of normal flora with homeostasis and relate deviation to disease states. Evaluate specific **measures to prevent deviation** that are aligned with accepted standards of care.
- 6.3 Healthcare and non-healthcare associated infections: Assess the **differences between healthcare-associated infections and non-healthcare-associated infections** using examples drawn from mock patient documents or case studies. Support explanations with relevant surveillance statistics, preventive measures, and methodologies concerning **outbreak detection, management, and education**.
- 6.4 Health education plan: Develop a **patient health education plan** including health screenings, preventive measures, signs and symptoms of exacerbation of disease/disorder/injury, pharmacological needs, and support systems.

### The following artifacts should be included in the student's portfolio:

- Career exploration artifacts
- Skills performance rubrics
- Documentation of job shadowing hours
- Examples of written, oral, or digital presentations

### Standards Alignment Notes

\*References to other standards include:

- P21: Partnership for 21st Century Skills [Framework for 21st Century Learning](#)
  - Note: While not all standards are specifically aligned, teachers will find the framework helpful for setting expectations for student behavior in their classroom and practicing specific career readiness skills.