



2018-2019

Medical Terminology

OUTLINE

DESCRIPTION:

Medical Terminology is a prerequisite for the majority of health career courses. The course is centered on the language of health care through the study of anatomy and physiology. Emphasis is on providing students with a thorough understanding of body systems and their interrelationships. The course includes advanced medical terminology as applied to diseases, disorders, and medical interventions.

Medical Terminology has been UC a-g approved to meet the elective ("g" – Interdisciplinary) requirement.

INFORMATION:

- A. Pre-requisite: None
- B. Length: One semester
- C. Sector: Health Science and Medical Technology
- D. Pathway: Patient Care

Orientation
<ul style="list-style-type: none">A. Introduce the course and facilities.B. Discuss the syllabus and major objectives.C. Explain applicable classroom management procedures, the ROP Student Rules of Conduct, and any operational guidelines.D. Review instructor/student expectations.E. Explain enrollment and attendance requirements and procedures.F. Review grading and student evaluation procedures.G. Discuss the community classroom aspect of the program if applicable.H. Discuss the “next steps” related to additional education, training, and employment.I. Review classroom safety, emergency and disaster procedures.
1. Communication Skills
<ul style="list-style-type: none">A. Demonstrate positive verbal communication skills using appropriate vocabulary, demeanor, and vocal tone in the classroom and/or worksite.B. Read and interpret written information and directions.C. Practice various forms of written communication appropriate to the occupation.D. Practice positive body language skills.E. Practice professional verbal skills for resolving a conflict.F. Demonstrate active listening skills including techniques for checking for understanding, and for obtaining clarification of directions.
2. Interpersonal Skills
<ul style="list-style-type: none">A. Demonstrate positive teamwork skills by contributing to a group effort.B. Practice the importance of diversity awareness and sensitivity in the workplace.C. Define sexual harassment in the workplace and identify the employee’s role and responsibility.D. Practice participation skills.E. Identify different personality types and strategies for working effectively with each type.F. Practice business and social etiquette skills appropriate to the occupation.G. Discuss the role of business and personal ethics in the decision-making process.H. Evaluate various job-related scenarios and justify decisions based on ethics.I. Demonstrate flexibility and adaptability in working with others.J. Demonstrate the use of time management skills.

3. Personal and Occupational Safety
<ul style="list-style-type: none">A. Demonstrate procedures to be followed in the case of emergencies.B. Discuss ways to report a potential safety hazard to a supervisor.C. Identify and discuss cyber ethics, cyber safety, and cyber security.D. Apply personal safety practices to and from the job.E. Describe the procedure for reporting a work-related hazard or injury.F. Recognize the effects of substance abuse in the workplace.G. Recognize the importance of using proper body mechanics for lifting and moving in the work setting.H. Recognize good housekeeping as a safety issue.I. Identify safety hazards commonly found in a variety of medical settings including Standard/Universal Precautions and hazardous waste.J. Explain the importance of CAL-OSHA.K. Define and discuss ergonomics in relation to the working environment.L. Discuss the electrical hazards of working with electronic equipment.
4. Leadership
<ul style="list-style-type: none">A. Define leadership and identify the responsibilities, competencies, and behaviors of successful leaders.B. Work with peers to promote divergent and creative perspectives.C. Demonstrate how to organize and structure work, individually and in teams, for effective performance and the attainment of goals.D. Explain multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.E. Employ ethical behaviors and actions that positively influence others.F. Use a variety of means to positively impact the direction and actions of a team or organization.G. Analyze the short-term and long-term effects a leader's actions and attitudes can have on productivity, morale, and organizational culture.
5. Becoming a Health Care Professional
<ul style="list-style-type: none">A. Describe and discuss different types of healthcare career pathways.B. Examine the roles and responsibilities of a healthcare professional.C. Understand the various levels of education, training and licensure.D. Describe the proper appearance of a healthcare worker.E. Discuss HIPAA, Standard of Care, and Patients' Bill of Rights.F. Discuss the importance of medical terms and the development of the language of healthcare.
6. Introduction to Medical Terminology

- A. Demonstrate the ability to use medical terms in their proper context.
- B. Define commonly used roots, prefixes, and suffixes.
- C. Demonstrate proper pronunciation of medical terms.
- D. Analyze medical terms by identifying the root, prefix, and suffix.
- E. Describe the financial implications of errors in the use of medical terminology.
- F. Build medical terms using roots, prefixes, suffixes, and combining vowels.
- G. Communicate effectively (in verbal and written forms) using medical terms for anatomy, disease, and diagnostic and therapeutic procedures.

7. Terminology for Basic Human Anatomy and Physiology

- A. Identify, define, and spell word roots associated with the body structure and organization.
- B. Analyze, define, and spell medical terms relating to the integumentary system.
- C. Analyze, define, and spell medical terms relating to the respiratory system.
- D. Analyze, define, and spell medical terms relating to the digestive system.
- E. Analyze, define, and spell medical terms relating to the urinary system.
- F. Analyze, define, and spell medical terms relating to the cardiovascular system.
- G. Analyze, define, and spell medical terms relating to the musculo-skeletal system.
- H. Analyze, define, and spell medical terms relating to the reproductive systems.
- I. Analyze, define, and spell medical terms relating to the sensory systems.
- J. Analyze, define, and spell medical terms relating to the nervous system.
- K. Identify, define, and spell medical terms related to common diseases, disorders, and conditions of the integumentary system.
- L. Identify, define, and spell medical terms related to common diseases, disorders, and conditions of the respiratory system.
- M. Identify, define, and spell medical terms related to common diseases, disorders, and conditions of the digestive system.
- N. Identify, define, and spell medical terms related to common diseases, disorders, and conditions of the urinary system.
- O. Identify, define, and spell medical terms related to common diseases, disorders, and conditions of the cardiovascular system.
- P. Identify, define, and spell medical terms related to common diseases, disorders, and conditions of the musculo-skeletal system.
- Q. Identify, define, and spell medical terms related to common diseases, disorders, and conditions of the reproductive systems.
- R. Identify, define, and spell medical terms related to common diseases, disorders, and conditions of the sensory systems.
- S. Identify, define, and spell medical terms related to common diseases, disorders, and conditions of the nervous system.
- T. Identify anatomical descriptors and fundamental human body structure.
- U. Describe the function of the major body systems.
- V. Describe the basic components of the major body systems.
- W. Define basic word elements related to anatomy and physiology.
- X. Define anatomic reference systems and terms (e.g., anatomic position, body planes, directions, cavities).

8. Terminology for Clinical and Diagnostic Procedures

- A. Analyze, define, spell, and pronounce medical terms relating to diagnostic procedures associated with radiology, computed tomography, magnetic resonance imaging, nuclear medicine technology, and ultrasonography.
- B. Demonstrate understanding of medical terms used in various diagnostic and clinical reports and documents.
- C. Analyze, define, spell, and pronounce words related to clinical procedures associated with surgical procedures and laboratory tests.
- D. Describe the impact of technology on the use of terminology within the medical field.

9. Medical Abbreviations

- A. Identify common abbreviations used in medical, clerical and clinical areas.
- B. Identify abbreviations that can cause potential errors.

Key Assignments

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
1. Students will identify the types of bones (long, short, flat, irregular), the structure and composition of bone, and the divisions of the skeletal system (axial versus appendicular skeleton). Students will identify the major muscle groups, discuss the regions of muscles and describe the corresponding actions that help move the skeletal system. Students will use "Anatomy in Clay" to structure muscles on a model of the human body and label each muscle and muscle type.	1A 6A-D, F, G 7A, G, P, T-X	2	2	B2.0 B5.0	RLST 11.12.4
2. In teams, students will research an assigned pathology affecting the integumentary system. Students will develop an electronic presentation of their research, and present to the class.	1A 2A, D, I 4C 6A-D, F, G 7A, B, K, T-X	2 4 9 11	2 4	B2.0 B5.0	LS 11-12.6 RLST 11.12.4 WS 11-12.6
3. Students will develop a working model of the respiratory system. They will demonstrate the inhalation and exhalation process and the muscles that are used. Students will write a 400 word essay explaining the harmful effects of smoking (vape, cigarettes, pipe, marijuana, etc.) to the respiratory system, and the impact family history has on this recurring health problem.	1C 6A-D, F, G 7A, C, L, T-X	2 11	2	B2.0 B5.0	LS 11-12.6 RLST 11.12.4
4. Students will write a 350 word essay describing the functional unit of the kidney (the nephron) and explain the overall process of urine formation that begins in that functional unit. Students will also learn about the characteristics of urine, the process of urinalysis and its implications, as well as to various pathologies affecting the urinary system.	1C 6A-D, F, G 7A, E, N, T-X	2	2	B2.0 B5.0	LS 11-12.6 RLST 11.12.4 WS 11-12.7

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
<p>5. Students will conduct research on sexually transmitted diseases. Students will write a 500 word-essay on the types of STDs, how they are transmitted, how they are treated, and how they can be prevented.</p>	<p>1C 6A-D, F, G 7A, H, Q, T-X 8A-C</p>	<p>2 11</p>	<p>2</p>	<p>B2.0 B5.0</p>	<p>LS 11-12.6 RLST 11.12.4 WS 11-12.7</p>
<p>6. Using a variety of resources, students will research blood flow through the human body and create an accurate diagram illustrating the components of the heart, the arteries, veins, and capillaries. Students will describe the functions of each in the circulation process, and indicate oxygenated blood as well as deoxygenated blood.</p>	<p>1A, C 6A-D, F, G 7A, F, O, T-X</p>	<p>2 11</p>	<p>2</p>	<p>B2.0 B5.0</p>	<p>LS 11-12.6 RLST 11.12.4</p>
<p>7. Students will identify the overall functions of the digestive system and its major organs (esophagus, intestines, stomach, etc.). Students will explain the specific function of each organ. Students will categorize each type of tooth that begins the digestive process. In groups, students will create clay models of the organs that form the alimentary canal, as well as the accessory organs (liver, pancreas, gall bladder) that assist in the digestion/breakdown of the food particles.</p>	<p>1A, C 2A, D, I 6A-D, F, G 7A, D, M, T-X</p>	<p>2 9</p>	<p>2 9</p>	<p>B2.0 B5.0</p>	<p>LS 11-12.6 RLST 11.12.4</p>
<p>8. Students will write a 250 word essay on macular degenerative disease of the eye that explains what a person sees and timeline of losing eyesight.</p>	<p>1C 6A-D, F, G 7A, I, R, T-X</p>	<p>2 11</p>	<p>2</p>	<p>B2.0 B5.0</p>	<p>LS 11-12.6 RLST 11.12.4 WS 11-12.7</p>

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
<p>9. Students will create an electronic publication to educate elementary school children on eating healthy and doing proper exercise to strengthen the cardiovascular system. Included will also be information on obesity, the effects of diabetes, and how to prevent both.</p>	<p>1C 4C,F 6G 7A, F, O, T-X</p>	<p>2 4 11</p>	<p>2 4</p>	<p>B2.0 B5.0</p>	<p>LS 11-12.6 WS 11-12.6 WS 11-12.7</p>
<p>10. Students will generate relevant questions, conduct research and prepare an informational campaign about a disease or condition that impacts high school students. Students will implement their campaign on their campus.</p>	<p>1A-D, F 2A, B, D-G, I, J 4C,F 6A-D, F, G 7T-W 9A</p>	<p>1 2 9 11 12</p>	<p>2 4 5 7 9</p>	<p>C4.0 C12.0</p>	<p>LS 11-12.6 RLST 11-12.9 SLS 11-12.1 SLS 11-12.1b WS 11-12.6 WS 11-12.7</p>
<p>11. Students will read and interpret a medical report. Based on their interpretation, students will conduct research to determine what further clinical diagnostic procedures are necessary.</p>	<p>1B, C 5A, B, D, F 7W 8B, D 9A</p>	<p>1 2 5 11</p>	<p>5</p>	<p>C12.0</p>	<p>LS 11-12.6 RLST 11-12.4 WS 11-12.7</p>

Standards Assessed in this Program

Career Ready Practices

1. Apply appropriate technical skills and academic knowledge.
2. Communicate clearly, effectively, and with reason.
3. Develop an education and career plan aligned to personal goals.
4. Apply technology to enhance productivity.
5. Utilize critical thinking to make sense of problems and persevere in solving them.
6. Practice personal health and understand financial well-being.
7. Act as a responsible citizen in the workplace and the community.
8. Model integrity, ethical leadership, and effective management.
9. Work productively in teams while integrating cultural/global competence.
10. Demonstrate creativity and innovation.
11. Employ valid and reliable research strategies.
12. Understand the environmental, social, and economic impacts of decisions.

Anchor Standards

2.0 Communications

- Acquire and use accurately sector terminology and protocols at the career and college readiness level for communicating effectively in oral, written, and multimedia formats.

3.0 Career Planning and Management

- Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans.

4.0 Technology

- Use existing and emerging technology, to investigate, research, and produce products and services, including new information, as required in the sector workplace environment.

5.0 Problem Solving and Critical Thinking

- Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.

6.0 Health and Safety

- Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the sector workplace environment.

7.0 Responsibility and Flexibility

- Initiate, and participate in, a range of collaborations demonstrating behaviors that reflect personal and professional responsibility, flexibility, and respect in the sector workplace environment and community settings.

8.0 Ethics and Legal Responsibilities

- Practice professional, ethical, and legal behavior, responding thoughtfully to diverse perspectives and resolving contradictions when possible, consistent with applicable laws, regulations, and organizational norms.

9.0 Leadership and Teamwork

- Work with peers to promote divergent and creative perspectives, effective leadership, group dynamics, team and individual decision making, benefits of workforce diversity, and conflict resolution.

10.0 Technical Knowledge and Skills

- Apply essential technical knowledge and skills common to all pathways in the sector following procedures when carrying out experiments or performing technical tasks.

Pathway Standards

Health Science and Medical Technology – Patient Care

B2.0 Understand the basic structure and function of the human body and relate normal function to common disorders.

B5.0 Know the definition, spelling, pronunciation, and use of appropriate terminology in the health care setting.

Health Science and Medical Technology – Healthcare Administrative Services

C4.0 Know the role and relationship of public policies and community engagement on the healthcare delivery system.

C12.0 Understand how to use health information effectively.

Common Core State Standards

ENGLISH LANGUAGE ARTS

Language Standards

LS 11-12.6: Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the (career and college) readiness level, demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Reading Standards for Literacy in Science and Technical Subjects

RLST 11-12.4: Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.

RLST 11-12.9: Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

Speaking and Listening Standards

SLS 11-12.2: Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions, and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.

SLS 11-12.1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners, building on others ideas and expressing their own clearly and persuasively.

SLS 11-12.1b: Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.

SLS 11-12.1d: Respond thoughtfully to diverse perspectives, synthesize comments, claims and evidence made on all sides of an issue, resolve contradictions when possible, and determine what additional information or research is required to deepen the investigation or complete the work.

Writing Standards

WS 11-12.6: Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback including new arguments and information.

WS 11-12.7: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem, narrow or broaden the inquiry when appropriate, synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.