

Academy for Allied Health and Sciences at Plainfield High School



**Plainfield High School
in partnership with
JFK-Muhlenberg-Snyder Schools
Union County College
Lincoln Technical Institute
Rutgers University**

Medical Terminology Curriculum

IDST 1000

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Course Philosophy

The Medical Terminology course is designed to be equivalent to a college level health sciences class. This course is based on the study of terminology and concepts which apply to the body systems, anatomical structure, physiologic processes, medical procedures, and the pathologic mechanisms of disease. Through the provision of specialized terminology students will be expected to communicate in an accurate, articulate, and concise manner in a variety of different contexts involving medical subject matter. Through the development of a basic knowledge in medical terminology it is hoped that students will also gain an appreciation for the meaning, classification, and application of the course material to a broader understanding of medical science.

Additionally, students are expected to develop a foundation for knowledge in the areas of the structure and function of the human body, appreciate the pathologic states that can affect each part of the body, explain the basic pharmacology associated with each part of the body; accurately pronounce and spell medical terms; and finally correctly identify and categorize terms as anatomical, diagnostic, surgical, radiological, or therapeutic.

Major learning objectives which each student is expected to acquire at the completion of this course include:

- (1) Understand the necessity of a medical terminology.
- (2) Recognize that medical terms are derived from simpler components.
- (3) Build medical terms from component parts.
- (4) Categorize terms as anatomical, diagnostic, surgical, radiological or therapeutic.
- (5) Understand basic anatomy and physiology.
- (6) Explain the meaning of word parts associated with each unit.
- (7) Define all important terms.
- (8) Accurately spell all medical terms.
- (9) Correctly pronounce all medical terms.
- (10) Write meaning of all abbreviations.
- (11) Explain basic pharmacology associated with all units.
- (12) Identify and discuss basic pathology associated with all units.

***Refer to Appendix A for description of learning styles that are addressed in the activities listed in the curriculum (e.g., AR, AS, CR, CS).*

Course Goals

The student will be able to:

1. Demonstrate understanding for the rules for using word parts by forming medical words.
2. Recognize prefixes, suffixes, and root words in medical terms.
3. Write the meaning of the word parts and use them to build and analyze words.
4. List the levels of body organization from the cellular level to the whole organism.
5. Demonstrate the anatomical position.
6. Define sixteen directional terms of the body and be able to use them correctly.
7. Demonstrate an understanding of the structure and function of skin and its appendages.
8. Identify and discuss pathology associated with the skin.
9. Categorize medical terms as anatomical, diagnostic, surgical, radiological, or therapeutic.
10. Describe the functions of bones, muscles, and supporting structures.
11. Identify and locate the major bones and muscles of the body.
12. Explain the purpose of bone markings, projections, and depressions.
13. Explain the meaning of word parts associated with the skeletal and muscular systems.
14. Demonstrate understanding of the structure and function of the nervous system.
15. Identify and discuss pathologic conditions associated with the nervous system.
16. List and describe each of the special senses of the body.
17. Label the major structures of the sensory organs and identify their functional significance.
18. Demonstrate an understanding of the relationship between receptors and special sense organs.
19. Explain the meaning of word parts associated with the special sensory organs.
20. List and describe the function of each gland of the endocrine system.
21. Describe the relationship between each gland and the target organ within the body.
22. Identify the relationships amongst the endocrine glands within the human body.
23. Describe the role of hormones within the body and the action of drugs on the various glands of the endocrine system.
24. Explain the causes and progression of disease within the glands of the endocrine system.
25. Explain the importance of word parts and terms related to the endocrine system.

26. Explain the main functions and parts of the cardiovascular system.
27. Describe the flow of blood throughout the various parts of the cardiovascular system.
28. Explain the actions of drugs on the various parts of the cardiovascular system.
29. Identify and discuss important diseases which affect the cardiovascular system.
30. Define important terms associated with the cardiovascular system. 31. Describe the function of the respiratory system.
32. Describe the physiologic processes associated with the process of breathing.
33. Explain the action of drugs on the respiratory system.
34. Identify and discuss diseases associated with the respiratory system.
35. Identify and explain the importance of word parts associated with terms which describe the respiratory system.
36. Explain the function of the digestive system.
37. Explain and identify the structures and physiologic mechanisms associated with processes of the digestive system.
38. Explain the action of drugs on their target organs within the digestive system.
39. Identify and discuss the diseases which affect the organs of the digestive system.
40. Identify and explain important word parts associated with terms describing the digestive system.
41. Describe the identity and function of each of the blood cells of the lymphatic system.
42. Explain the functions of the lymphatic system.
43. Explain the protective roles on the body by each of the five types of white blood cells of the lymphatic system.
44. Explain the action of drugs on each of the types of blood cells and the lymphatic system.
45. Explain the course of diseases within the white blood cells and the lymphatic system.
46. Explain the importance of word parts associated with the terms of the blood and lymphatic system.
47. Describe the function of the urinary system.
48. Describe both the microscopic and macroscopic function of the urinary system.
49. Describe the structure and function of the functional unit of the kidney, the nephron.
50. Describe each step in the process of urine formation.
51. Describe the action of drugs on the urinary system.
52. Explain the importance of word parts associated with terms of the urinary system.

53. Describe the anatomical location and function of the organs of the male and female reproductive systems.
54. Differentiate between terms that relate to only the male or female reproductive system.
55. Recognize terms which are associated with the menstrual cycle, fertilization, ovulation, and obstetrics.
56. Explain the actions of drugs on the organs of the reproductive system.
57. Identify and discuss diseases of the reproductive system.
58. Explain the meaning of word parts associated with terms of the reproductive system.
59. Understand the meaning and use of a patient's chart.
60. Describe the purpose of medical abbreviations.
61. Define medical/dental terms.
62. Describe the purpose of a medical claim form.
63. Identify and explain the importance of medical codes.

Outline of Course Content Areas

- I. Basic Word Structure
- II. Body Organization
- III. The Integumentary System
- IV. The Skeletal/Muscular System
- V. The Nervous System
- VI. The Special Senses
- VII. The Endocrine System
- VIII. The Cardiovascular System
- IX. X. The Respiratory System
- XI. The Digestive System
- XII. Blood and the Lymphatic System
- XIII. The Urinary System
- XIV. The Reproductive System
- XV. Medical/Dental Record
Medical/Dental Claim Form

I. Introduction to Medical Terminology

A. Objectives: The Student will be able to

1. Describe and identify major themes and concepts discussed throughout this course.
2. Identify the terms, concepts, and structural relationships of each of the body systems.
(5.1.12.C.1; 9.4.12.H.3.1; 9.4.12.H.3.3)

B. Activities:

1. Teacher lecture, demonstrations, class discussions, and class activities following the objectives of this course.

C. Evaluations:

1. Class participation, group work, and independent study will be assessed.
2. Frequent assessments will be given (quizzes, exams, projects,) on lecture notes and assigned reading.
3. Practical lab guided activities will be designed to incorporate a practical application of assigned reading and problem exercises.
4. Examinations will be administered at the conclusion of each unit to check for understanding.

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

II. Basic Word Structure

A. Learning Objectives: Student will be able to

1. Recognize prefixes, suffixes, and root words in medical terms. (5.1.12.C.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
2. Divide medical words into component parts (9.4.12.H.3.1) 3.
Identify prefixes of position and color.
4. Identify prefixes of number, measurement, and direction.
5. Demonstrate understanding of the rules for using word parts by forming medical words.
(5.1.12.C.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
6. Build medical words for surgical, diagnostic, and symptomatic conditions (5.1.12.C.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
7. Write the meaning of the word parts and use them to build and analyze words
(9.1.12.H.3.1)
8. Describe several medical specialties and name their associated specialists. (5.1.12.C. all; 9.4.12.H.3.2)

9. Define terms pertaining to sciences of the human body. (5.1.12.C.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
10. Accurately spell medical terms.
11. Correctly pronounce medical terms.
12. Identify abbreviations of medical terms.

B. Activities:

1. Instructor lead class discussions, lectures, power point presentations, quizzes, and exams.
1. Instructor will lead students in the completion of vocabulary/terminology worksheets.
2. Instructor will provide students with practice sessions in the pronunciation and understanding of medical terms.
3. Working in groups, students will be asked to build medical terminology for surgical, diagnostic, and symptomatic suffixes through the completion of worksheets and student directed activities.
4. Instructor will supply students with case studies pertinent to a respective unit. Then, working in groups, students will analyze and define medical terms and present their results to the class. Instructor will check for accuracy and make corrections where necessary.(5.1.12.A.4)
5. Instructor will organize a field trip to a medical records department.
6. Instructor will arrange for the class to meet with a medical transcriptionist for a discussion into the details of this particular occupation in the health professions.
7. Implement health care provider/patient skits (scenarios) during each class meeting that require the use of new terminology and the reinforcement of previous terms and concepts. Have the scenarios focused on different themes-i.e. - a patient with hypertension talking with a cardiologist; a patient with pneumonia, or other lung disease talking with a pulmonologist. (Could be as a starter, or closing activity each class meeting)
8. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they would hope to do in this field and what they perceive as the demands and challenges of that particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.
9. have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Assessments:

1. Terminology and spelling quiz.
2. Class participation
3. Writing medical Terms
4. Label diagrams and models
5. Examinations.

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

III. Body Organization

A. Objectives: The student will be able to

1. List the levels of organization from the cellular level to the whole organism.(5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
2. Name each of the body systems and their functions. (5.1.12.C.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
3. Demonstrate the anatomical position. (5.1.12.C.1; 9.4.12.H.3.3)
4. Define and identify three planes of the human body (9.4.12.H.3.3)
5. Identify each of the human body cavities and the specific organs found within each of them.(5.1.12.C.all; 9.4.12.H.3.3)
6. Describe the anatomical divisions of the abdomen.(5.1.12.C.1; 9.4.12.H.3.3)
7. List the divisions of the back (9.4.12.H.3.3)
8. Define sixteen directional terms of the body and be able to use them correctly.(5.1.12.C.1; 9.4.12.H.3.3)
9. Identify the word roots/combining forms related to the human body. (5.1.12.C.1-C.2; 9.4.12.H.3.3)
10. Accurately spell medical terms.
11. Correctly pronounce medical terms.
12. Identify abbreviations of medical terms.

B. Activities:

1. Instructor will lead class in lectures, topic based discussions, power point presentations, group work, learning activities, labs, and projects.
2. Instructor will distribute for the class vocabulary/terminology worksheets for the comprehension/application of medical terms and concepts related to body organization.
3. Instructor will lead the class in a discussion of vocabulary/terminology terms and their pronunciation related to this unit.
4. Instructor will divide students into groups and have them practice with each other the correct pronunciation and understanding of this unit's terms.
5. Instructor will supply students with case studies pertinent to the unit and have students analyze and define medical terms related to this unit.
6. Implement health care provider/patient skits (scenarios) during each class meeting that require the use of new terminology and the reinforcement of previous terms and concepts. Have the scenarios focused on different themes-i.e. - a patient with hypertension talking with a cardiologist; a patient with pneumonia, or other lung disease talking with a pulmonologist. (Could be as a starter, or closing activity each class meeting)
7. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they would hope to do in this field and what they perceive as the demands and challenges of that

particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.

8. Have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Evaluations:

1. Class assignments
2. Quizzes
3. Class participation
4. Labeling diagrams and models
5. Labs, projects
6. Examinations

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

IV. The Integumentary System

A. Objectives: *The student will be able to*

1. Demonstrate understanding of the structure and function of skin and its appendages. (5.1.12.A.1; 5.1.12.A.3; 9.4.12.H.3.1; 9.4.12.H.3.3)
2. Identify five primary and secondary skin lesions. (5.1.12.A.1; 9.4.12.H.3.1)
3. Match different types of skin lesions with their descriptions. (5.1.12.A.1; 5.1.12.C.1; 9.4.12.H.3.1)
4. Compare and contrast methods of administering medications. (5.1.12.C.1; 9.4.12.H.4.3; 9.4.12.H.4.4)
5. Distinguish between parenteral and nonparenteral (9.4.12.H.3.3)
6. Classify burns according to severity. (5.1.12.C. all; 9.4.12.H.3.3)
7. Describe skin problems associated with exposure to ultraviolet radiation. (5.1.12.A.1; 5.1.12.C.1-C.2; 9.4.12.H.3.3)
8. List the major classifications of skin eruptions (9.4.12.H.3.3).
Explain the pharmacology associated with the treatment of skin lesions. (5.1.12.C.1); 5.1.12.C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
9. Identify and discuss pathologic lesions associated with the skin. (5.1.12.A.all; 9.4.12.H.3.1)
10. Explain the meaning of word parts associated with the skin. (5.1.12.A.1; 9.4.12.H.3.3)
11. Define important terms associated with the skin (9.4.12.H.3.1).
12. Accurately spell terms associated with the skin (9.4.12.H.3.1).
13. Correctly pronounce medical terms associated with the skin ((9.4.12.H.3.1).
14. Write and understand the meaning of medical terms associated with the skin (9.4.12.H.3.1)
15. Categorize medical terms associated with the skin as anatomical, diagnostic, surgical, or radiological. (5.1.12.A.all; 9.4.12.H.3.1; 9.4.12.H.3.3)

B. Activities:

1. Instructor will lead class in lecture, power point presentations, lab exercises, and unit projects.
2. Instructor will lead students in the completion of vocabulary/terminology worksheets.
3. Through student group activities, students will both discuss and correctly pronounce medical terminology related to the skin.
4. Instructor will have students, working in groups, review medical case records which focus on the integumentary system and have students analyze and define the terms involved in the cases.
5. Instructor will arrange to have a guest speaker give a talk to students in the class about the field of dermatology.
6. Instructor will arrange for the class to participate in skin cancer screening through participation in a program hosted by the American Cancer Society.
7. Implement health care provider/patient skits (scenarios) during each class meeting that require the use of new terminology.
8. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they would hope to do in this field and what they perceive as the demands and challenges of that particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.
9. have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Evaluation:

1. Reading and question assignments
2. Class participation
3. Quizzes
4. Labs
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

V. The Skeletal/Muscular System

A. Objectives: *The student will be able to*

1. Describe the functions of muscles, bones, and supporting structures. (5.1.12.A.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
2. Identify and locate the major bones and muscles of the body (9.4.12.H.3.1; 9.4.12.H.3.3).

3. Identify the structures of the two main divisions of the skeletal system (9.4.12.H.3.1; 9.4.12.H.3.3).
4. Describe the four main types of bones (5.1.12.A.1; 9.4.12.H.3.1; 9.4.12.H.3.3).
5. Explain the functions of the vertebral column and list its parts. (5.1.12.A.1; 5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3).
6. List and describe the main classifications of joints (9.4.12.H.3.1)
7. Explain the purpose of bone markings. (5.1.12.C.1-C.2; 9.4.12.H.3.1)
8. Explain the actions of drugs on the skeletal and muscular systems. (5.1.12.C.1C.2; 9.4.12.H.4.3; 9.4.12.H.4.4)
9. Identify the types of pathology associated with the skeletal and muscular systems. (5.1.12.A.1); (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
10. Explain the meaning of the word parts associated with the skeletal and muscular systems. (5.1.12.A.3; 9.4.12.H.3.1; 9.4.12.H.3.3)
11. Accurately spell medical terms.
12. Correctly pronounce medical terms.
13. Correctly write the meaning of abbreviations of terms used to describe the parts of the skeletal/muscular system (9.4.12.H.3.1; 9.4.12.H.3.3)
14. Categorize the meaning of terms in the skeletal/muscular system as anatomical, diagnostic, surgical, radiological, or therapeutic. (5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3)

B. Activities:

1. Instructor will lead class in lecture, power point presentations, lab exercises, and unit projects.
2. Instructor will lead students in the completion of vocabulary/terminology worksheets.
3. Through student group activities, students will both discuss and correctly pronounce medical terminology related to the skeletal/muscular system.
4. Instructor will have students, working in groups, review medical case records which focus on the skeletal/muscular system and have students analyze and define the terms involved in the cases.
5. Implement health care provider/patient skits (scenarios) during each class meeting that require the use of new terminology.
6. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they would hope to do in this field and what they perceive as the demands and challenges of that particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.
7. have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Evaluation:

1. Reading and question assignments

2. Class participation
3. Quizzes
4. Lab
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

VI. The Nervous System

A. Objectives: The Student will be able to

1. Demonstrate understanding of the structure and function of the nervous system. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H .3.3)
2. Label the major structures of the brain and lobes of the cerebral cortex. (5.1.12.A.1; 9.4.12.H.3.1; 9.4.12.H .3.3)
3. Recognize several types of mental disorders (9.4.12.H.3.1; 9.4.12.H .3.3)
4. Explain the action of drugs related to the nervous system. (5.1.12.A.1);(5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H .3.3)
5. Identify and discuss pathological conditions associated with the nervous system. (5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H .3.3)
6. Explain the meaning of word parts associated with the nervous system. (5.1.12.C.1-C.2; 9.4.12.H.3.1)
7. Define important terms related to the nervous system (9.4.12.H.3.1) 8. Accurately spell medical terms related to the nervous system.
9. Write the meaning of abbreviations associated with the nervous system.
10. Categorize the terms associated with the nervous system as anatomically, diagnostic, surgical, radiological, or therapeutic. (5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3)

B. Activities:

1. Instructor will lead class in lecture, power point presentations, lab exercises, and unit projects.
2. Instructor will lead students in the completion of vocabulary/terminology worksheets.
3. Through student group activities, students will both discuss and correctly pronounce medical terminology related to the nervous system.
4. Instructor will have students, working in groups, review medical case records which focus on the nervous system and have students analyze and define the terms involved in the cases.
5. Instructor will arrange for a psychiatric nurse to prepare a discussion session for the students to answer their questions on the field of psychiatry.
6. Implement health care provider/patient skits (scenarios) during each class meeting that require the use of new terminology.
7. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they

would hope to do in this field and what they perceive as the demands and challenges of that particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.

8. have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Evaluation:

1. Reading and question assignments
2. Class participation
3. Quizzes
4. Labs
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

VII. The Special Senses

A. Objectives: *The student will be able to*

1. List and describe each of the special senses of the body. (5.1.12.C.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
2. Label the major structures of the eye and identify each of their respective functions. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
3. Label the major structures of the ear and identify each of their respective functions. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
4. Demonstrate an understanding of the relationship between receptors and special sense organs of the body (9.4.12.H.3.1; 9.4.12.H.3.3)
5. Explain the mechanisms of drug action on the different organs of special sense. (5.1.12.C.all; 9.4.12.H.4.3; 9.4.12.H.4.4)
6. Explain the meaning of word parts related to terminology of the special sense organs of the body. (5.1.12.A.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
7. Define important terms related to the special senses (9.4.12.H.3.1; 9.4.12.H.3.3)
8. Accurately spell medical terms.
9. Correctly pronounce medical terms.
10. Write the meaning of abbreviations used for the explanation of terms dealing with the special sense organs. (5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3)
11. Categorize the terms of the special sense organs as anatomic, diagnostic, radiologic, surgical, or therapeutic. (5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3)

B. Activities:

1. Instructor will lead class in lecture, power point presentations, lab exercises, and unit projects.
2. Instructor will lead students in the completion of vocabulary/terminology worksheets.
3. Through student group activities, students will both discuss and correctly pronounce medical terminology related to the organs of special senses.
4. Instructor will have students, working in groups, review medical case records which focus on the organs of special sense and have students analyze and define the terms involved in the cases.
5. Instructor will arrange for clinical shadowing experiences in the following departments of otolaryngology: audiology service, thoracic service, head and neck service.
6. Implement health care provider/patient skits (scenarios) during each class meeting that require the use of new terminology.
7. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they would hope to do in this field and what they perceive as the demands and challenges of that particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.
8. have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Evaluation:

1. Reading and question assignments
2. Class participation
3. Quizzes
4. Labs
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

VIII. The Endocrine System

A. Objectives: The student will be able to:

1. List and describe the function of each gland of the endocrine system. (5.1.12.A.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
2. Describe the relationship between the gland and the target organs. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
3. Differentiate between endocrine and exocrine glands (9.4.12.H.3.1; 9.4.12.H.3.3)
4. Identify the predominate hormones secreted by the endocrine glands. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)

5. Describe the relationship between the pituitary gland and other glands (9.4.12.H.3.1)
6. Identify several diseases caused by hormonal excesses/deficiencies. (5.5.12.C.all; 9.4.12.H.3.1)
7. Explain the pharmacology related to the endocrine system. (5.1.12.A.1; 5.1.12.C.1; 9.4.12.H.3.1; 9.4.12.H.3.3))
8. Explain the meaning of word parts associated with the endocrine system (9.4.12.H.3.1)
9. Identify and discuss pathology associated with the endocrine system. (5.1.12.A.1); (5.1.12.C.1 -C.2; 9.4.12.H.4.3; 9.4.12.H.4.4)
10. Define important terms related to the endocrine system. (5.1.12.A.1; 9.4.12.H.3.1) 11. Accurately spell medical terms.
12. Correctly pronounce medical terms. 13. Write the meaning of abbreviations
14. Categorize the terms as anatomical, diagnostic, radiological, surgical, or therapeutic. (5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3)

B. Activities:

1. Have students follow along in instructor led lectures, topic discussions, and class activities. 2. Have students complete vocabulary/terminology worksheets.
3. Give practice in both pronunciation and practice of words.
4. Supply students with case studies pertinent to the unit and have students analyze and define medical terms.
5. Clinical shadowing experience.
6. Implement health care provider/patient skits (scenarios) during each class meeting that require the use of new terminology.
7. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they would hope to do in this field and what they perceive as the demands and challenges of that particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.
8. Have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Evaluation:

1. Reading and question assignments
2. Class participation
3. Quizzes
4. Labs
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

IX. The Cardiovascular System

A. Objectives: The student will be able to

1. Explain the main function of the cardiovascular system. (5.1.12.A.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
2. List the four chambers of the heart and describe their function (9.4.12.H.3.1)
3. Describe the flow of blood through the main structures of the cardiovascular system. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
4. Explain the pharmacology related to the cardiovascular system. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
5. Identify and discuss the pathology associated with the cardiovascular system. (5.1.12.C.1; 9.4.12.H.3.1)
6. Explain the meaning of word parts associated with the cardiovascular system. (5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3)
7. Define important terms associated to the cardiovascular system.
8. Accurately spell medical terms associated with the cardiovascular system. 9. Correctly pronounce medical terms. 10. Write the meaning of abbreviation.
11. Categorize the terms as anatomical, diagnostic, radiological, and therapeutic. (5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3)

B. Activities:

1. Have students complete vocabulary, terminology worksheets.
1. Discuss vocabulary and terminology words and pronunciation.
2. Give practice in both pronunciation and understanding the words.
3. Supply students with case studies pertinent to the unit and have students analyze and define medical terms.
4. Participate in a blood drive on a voluntary basis.
5. Field Trip: Observe stress test to determine cardiovascular fitness.
7. Implement health care provider/patient skits (scenarios) during each class meeting that require the use of new terminology.
8. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they would hope to do in this field and what they perceive as the demands and challenges of that particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.
9. have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Evaluation:

1. Reading and question assignments
2. Class participation
3. Quizzes
4. Labs
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

X. The Respiratory System

A. Objectives: The student will be able to

1. Describe the function of the respiratory system. (5.1.12.A.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
2. Describe the structure and function of the respiratory system. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
3. Differentiate between internal and external respiration (9.4.12.H.3.1; 9.4.12.H.3.3)
4. Describe the process of breathing . (5.1.12.A.1; 9.4.12.H.3.1)
5. Explain the pharmacology associated with the respiratory system. (5.1.12.C.1-C.2; 9.4.12.H.3.1)
6. Identify and discuss pathology associated with the respiratory system. (5.1.12.C.1-C.2; 9.4.12.H.3.1)
7. Explain the meaning of word parts associated with the respiratory system (9.4.12.H.3.1)
8. Define important terms related to the respiratory system (9.4.12.H.3.1)
9. Accurately spell medical terms.
10. Correctly pronounce medical terms.
11. Write the meaning of abbreviations.
12. Categorize the terms as anatomical, diagnostic, radiological, surgical, or therapeutic. (5.1.12.C.all; 9.4.12.H.3.1).

B. Activities:

1. Have students participate in instructor led lectures, topic discussions, and learning activities.
2. Have students complete vocabulary, terminology worksheets.
3. Discuss vocabulary and terminology words and pronunciation.
4. Give practice in both pronunciation and understanding the words.
5. Supply students with case studies pertinent to the unit and have students analyze and define medical terms.
6. Participate in a blood drive on a voluntary basis.
7. Field Trip: Visit medical center to talk with a respiratory therapist.
8. Implement health care provider/patient skits (scenarios) during each class meeting that require the use of new terminology.
9. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they would hope to do in this field and what they perceive as the demands and challenges of that

particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.

10. Have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Evaluation:

1. Reading and question assignments
2. Class participation
3. Quizzes
4. Labs
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

XI. The Digestive System

A. Objectives: The student will be able to

1. Explain the function of the digestive system. (5.1.12.C.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
2. Identify the structures and describe the function of the organs of the digestive system. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
3. Identify anatomical and functional aspects of the teeth (9.4.12.H.3.1; 9.4.12.H.3.3)
4. Explain the pharmacology related to the digestive system. (5.1.12.C.1; 5.1.12.C.2; 9.4.12.H.3.1)
5. Identify and discuss pathology associated with the digestive system. (5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3)
6. Explain the meaning of word parts associated with the digestive system. (5.1.12.C.1; 9.4.12.H.3.1)
7. Define important terms related to the digestive system (9.4.12.H.3.1)
8. Accurately spell medical terms.
9. Correctly spell medical terms.
10. Write the meaning of abbreviations.
11. Categorize terms as anatomical, diagnostic, radiological, surgical, or therapeutic. (5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3)

B. Activities:

1. Have students participate in instructor led lectures, topic discussions, and learning activities.
2. Have students complete vocabulary, terminology worksheets.
3. Discuss vocabulary and terminology words and pronunciation.
4. Give practice in both pronunciation and understanding the words.

5. Supply students with case studies pertinent to the unit and have students analyze and define medical terms.
6. Participate in a blood drive on a voluntary basis.
7. Clinical shadowing at a medical center to observe the activities of the gastric service.
8. Implement health care provider/patient skits (scenarios) during each class meeting that require the use of new terminology.
9. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they would hope to do in this field and what they perceive as the demands and challenges of that particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.
10. Have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Evaluation:

1. Reading and question assignments
2. Class participation
3. Quizzes
4. Labs
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

XII. The Blood and the Lymphatic System

A. Objectives: *The student will be able to*

1. Describe the function and appearance of each of the blood cells. (5.1.12.C.1-C.2; 9.4.12.H.3.1)
2. Explain the functions of the lymphatic system. (5.1.12.C.1-C.2; 9.4.12.H.3.1)
3. Explain the relationship between plasma and lymph nodes.
4. Describe the protection given by each of the five types of white blood cells. (5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3)
5. Explain the pharmacology related to the blood and the lymphatic system. (5.1.12.C.all; 9.4.12.H.3.1)
6. Identify and discuss the pathology associated with the blood and lymphatic system. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
7. Explain the meaning of word parts associated with the blood and the lymphatic system. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
8. Define important terms associated with the blood and the lymphatic system. (5.1.12.C.1-C.2; 9.4.12.H.3.1)
9. Accurately spell medical terms.

10. Correctly pronounce medical terms.
11. Write the meaning of abbreviations used for the blood and lymphatic system(9.4.12.H.3.1)
12. Categorize terms as anatomical, diagnostic, radiological, surgical, or therapeutic.
(5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3).

B. Activities:

1. Have students participate in instructor led lectures, topic discussions, and learning activities.
2. Have students complete vocabulary, terminology worksheets.
3. Discuss vocabulary and terminology words and pronunciation.
4. Give practice in both pronunciation and understanding the words.
5. Supply students with case studies pertinent to the unit and have students analyze and define medical terms.
6. Participate in a blood drive on a voluntary basis.
7. Clinical shadowing experience: Have students participate in a clinical shadowing experience at a medical laboratory at a nearby medical center.
8. Implement health care provider/patient skits (scenarios) during each class meeting that require the use of new terminology.
9. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they would hope to do in this field and what they perceive as the demands and challenges of that particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.
10. Have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Evaluation:

1. Reading and question assignments
2. Class participation
3. Quizzes
4. Labs
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

XIII. The Urinary System

A. Objectives: The student will be able to

1. Describe the function of the urinary system. (5.1.12.C.1; 9.4.12.H.3.1.; 9.4.12.H.3.3)
2. List the macroscopic feature of the urinary system. (5.1.12.C.all; 9.4.12.H.3.1)
3. Describe the structure and function of a nephron. ((5.1.12.A.1; 9.4.12.H.3.1) 4.
Describe the structure of the urinary system. (5.1.12.C.1-C.2; 9.4.12.H.3.1))
5. Outline the process of urine formation (9.4.12.H.3.1)
6. Explain the pharmacology related to the urinary system. (5.1.12.C.1-C.2; 9.4.12.H.3.1
; 9.4.12.H.3.3)
7. Identify and discuss the pathology associated with the urinary system. (5.1.12.C.1-C.2;
9.4.12.H.3.1; 9.4.12.H.3.3)
8. Explain the meaning of word parts associated with the urinary system. (5.1.12.C.1;
9.4.12.H.3.1)
9. Define important terms related to the urinary system.
10. Accurately spell medical terms associated with the urinary system
11. Correctly pronounce medical terms associated with the urinary system.
12. Categorize terms as anatomical, diagnostic, radiological, surgical, or therapeutic.
(5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3)

B. Activities:

1. Have students participate in instructor led lectures, topic discussions, and learning activities.
2. Have students complete vocabulary, terminology worksheets.
3. Discuss vocabulary and terminology words and pronunciation.
4. Give practice in both pronunciation and understanding the words.
5. Supply students with case studies pertinent to the unit and have students analyze and define medical terms.
6. Participate in a blood drive on a voluntary basis.
7. Clinical shadowing experience: Have students participate in a clinical shadowing experience in a medical laboratory at a nearby medical center.
8. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they would hope to do in this field and what they perceive as the demands and challenges of that particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.
9. Have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Evaluation:

1. Reading and question assignments
2. Class participation
3. Quizzes
4. Labs
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

XIV. The Reproductive System

A. Objectives: The student will be able to:

1. Describe the location and function of the organs of the male and female reproductive systems. (5.1.12.A.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
2. Distinguish between terms that relate only to the male or female reproductive systems. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
3. Recognize terms associated with the menstrual cycle, ovulation, fertilization, and obstetrics (9.4.12.H.3.1; 9.4.12.H.3.3)
4. Explain the pharmacology relative to the reproductive systems. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
5. Identify and discuss the pathology associated with the reproductive systems. (5.1.12.C.1-C.2; 9.4.12.H.3.1; 9.4.12.H.3.3)
6. Explain the meaning of word parts associated with the reproductive systems (9.4.12.H.3.1)
7. Define important terms associated with the reproductive system (9.4.12.H.3.1)
8. Accurately spell medical terms associated with the reproductive system.
9. Correctly pronounce medical terms associated with the reproductive system.
10. Write the meaning of abbreviations associated with the reproductive system. (5.1.12.A.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
11. Categorize terms as anatomical, diagnostic, radiological, surgical, or therapeutic. (5.1.12.C.all; 9.4.12.H.3.1; 9.4.12.H.3.3)

B. Activities:

1. Have students participate in instructor led lectures, topic discussions, and learning activities.
2. Have students complete vocabulary, terminology worksheets.
3. Discuss vocabulary and terminology words and pronunciation.
4. Give practice in both pronunciation and understanding the words.
5. Supply students with case studies pertinent to the unit and have students analyze and define medical terms.
6. Participate in a blood drive on a voluntary basis.

7. Clinical shadowing experience: Have students participate in a clinical shadowing experience at a pediatrics unit at a nearby medical center.
8. Have students choose a particular area of the health professions which they are interested in and have them present a brief presentation during the course describing the work they would hope to do in this field and what they perceive as the demands and challenges of that particular health profession (using terminology related to their health field of interest) instead of the previous current event assignment.
9. Have students read and interpret medical articles which focus on terminology and medical concepts/diagnostics covered in each unit of study. Articles could be read in class with a discussion of points to allow students to use their growing medical vocabulary with more confidence and ease.

C. Evaluation:

1. Reading and question assignments
2. Class participation
3. Quizzes
4. Labs
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

XV. The Medical/Dental Record

A. Objectives: The student will be able to

1. Select from a list, dental terms describing the use of a patient's chart (9.4.12.H.3.1; 9.4.12.H.3.3)
2. Describe the purpose of the medical/dental patient chart. (5.1.12.A.1; 9.4.12.H.3.1)
3. Describe the purpose of medical abbreviations. (5.1.12.C.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
4. Define medical/dental terms. (5.1.12.C.1; 9.4.12.H.3.1)
5. Accurately spell medical terms.
6. Correctly pronounce medical terms.
7. Write the meaning of medical/dental abbreviations (9.4.12.H.3.1)

B. Activities:

1. Have students participate in instructor led lectures, topic discussions, and learning activities.
2. Have students complete vocabulary, terminology worksheets.
3. Discuss vocabulary and terminology words and pronunciation.
4. Give practice in both pronunciation and understanding the words.
5. Supply students with case studies pertinent to the unit and have students analyze and define medical terms.

C. Evaluation:

1. Reading and question assignments
2. Class participation
3. Quizzes
4. Labs
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

XVI. The Medical/Dental Claim Form

A. Objectives: The student will be able to

1. Select from a list, medical/dental terms describing the use of a claim form. (5.1.12.C.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
2. Describe the purpose of a claim form. (5.1.12.C.1; 9.4.12.H.3.1; 9.4.12.H.3.3)
3. Identify and recognize procedure codes. (5.1.12.C.1-C.2; 9.4.12.H.3.1)
4. Demonstrate the ability to code a claim form (.4.12.H.3.1)
5. Write the meaning of medical/dental abbreviations (9.4.12.H.3.1; 9.4.12.H.3.3)

B. Activities:

1. Have students participate in instructor led lectures, topic discussions, and learning activities.
2. Have students complete vocabulary, terminology worksheets.
3. Discuss vocabulary and terminology words and pronunciation.
4. Give practice in both pronunciation and understanding the words.
5. Supply students with sample claim forms and have students process a form.

C. Evaluation:

1. Reading and question assignments
2. Class participation
3. Quizzes
4. Labs
5. Exams

D. Resources:

1. Text: A recent text book on medical terminology for the health care professional.

APPENDIX A

Acronyms for Learning Styles

The Concrete Random Learner (CR)

The concrete random learning preference is characterized by an experimental attitude and accompanying behavior. CR learners get the gist or ideas quickly and demonstrate the ability to make intuitive leaps in exploring unstructured problem solving experience sometimes they also have insights and make leaps in structured situations. Then they are chided for not showing their work of jumping to conclusions.

Concrete random learners utilize the trial-and-error in acquiring information. They do not like cut-and-dries procedures that deny them opportunities to find answers in their own ways. They do not respond well to teacher intervention in their dependent efforts. They work well independently or in small groups.

CR instructional preferences- mini-lecture, games, simulation, open ended activities, brainstorming.

The Concrete Sequential Learner (CS)

The concrete sequential leaning preference is characterized by the propensity to derive information through direct, hands on experience. CS learners exhibit extraordinary development of their five senses. They appreciate order and logical sequence of the if-then, premise-conclusion variety. They like touchable, concrete materials. In a biology class, a plaster model handled by the teacher would be insufficient for these learners. They want to have the real thing to take apart themselves. The CS learners prefer step-by-step directions when confronted with a learning situation. They not only look for directions but they follow them. They like clearly ordered presentations and a quiet atmosphere.

CR instructional preferences- Checklists, charts, practical problems, computer programs, outlines, demonstrations

The Abstract Sequential Learner (AS)

The abstract sequential learning preference is characterized by excellent decoding abilities with written, verbal, and image symbols. AS learners have a wealth of conceptual "pictures" in their minds against which they read, hear, or see in graphic and pictorial form. They possess and like to use reading, listening, and visual translation skills. A symbol or picture is worth a thousand words to them.

These learners prefer a presentation that has substance, is rational and is sequential in nature. They are able to extract the main ideas from a logical presentation. They learn well from authorities and like vicarious experiences.

AS instructional preferences - lecture, note taking, writing reports, individualized study, instructional media.

The Abstract Random Learner (AR)

Abstract random learners are distinguishable by their attention to human behavior and a capacity to sense and interpret "vibrations". They are attuned to nuances of atmosphere and mood. They associate the medium with the message and tie a speaker's manner, delivery, and personality to the message being conveyed. In doing so, they evaluate a learning experience as a whole.

Abstract act random learners prefer to receive information in an unstructured manner and therefore like group discussions, activities which involve multi-sensory experiences, and busy environments. They prefer freedom from rules and guidelines. They seem to gather information and delay reaction; they organize material through reflection to get what they want.

AR instructional preferences- group work, music, poetry, short reading or lecture with discussion, personalized examples role play, journals.