Notes to Instructors

This Instructor Manual is a resource for instructors using this component. Each component is broken down into units, which include the following elements:

- Learning objectives
- Suggested student readings, texts, reference links to supplement the narrated PowerPoint slides
- Lectures (voiceover PowerPoint in Flash format); PowerPoint slides (Microsoft PowerPoint format), lecture transcripts (Microsoft Word format); and audio files (MP3 format) for each lecture
- Self-assessment questions reflecting Unit Objectives with answer keys and/or expected outcomes
- Application Activities (e.g., discussion questions, assignments, projects) with instructor guidelines, answer keys and/or expected outcomes
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Disclaimer

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Likewise, the above also applies to the Curriculum Development Centers (including Columbia University, Duke University, Johns Hopkins University, Oregon Health & Science University, University of Alabama at Birmingham, and their affiliated entities).
Component Overview

This component explains specific terminology used by workers in health care and public health. This is NOT a course in data representation or standards.

Component Objectives

At the completion of this component, the student will be able to:

- Define, understand and correctly pronounce medical terms related to each of the major body systems.
- Define commonly used terms in public health, nursing, health information technology, and clinical vocabularies & terminologies related to the implementation of electronic health records.
- Identify the purpose and uses of pertinent health care terminologies in the electronic health record.
- Demonstrate the ability to integrate and use health care terminology in the various health information technology roles.
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Carol D. McKelvey, MA, RHIA, has been a member of the faculty of the Health Information Technology (HIT) Program at Wallace State Community College since 1993. She earned a B.S. degree in health information administration from the University of Alabama at Birmingham and an M.A. degree in health science from the University of Alabama. Over the past eight years, her concentration has been in the area of e-learning, serving as developer and instructor of distance education classes for the HIT Program, and evaluator of online course content and quality for Wallace State. Prior to becoming an educator, Ms. McKelvey served as the Director of Health Information Services in general acute care and rehabilitation settings. She is an active member of the American Health Information Management Association and the Alabama Association of Health Information Management.

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Component 3/Unit 1

Unit Title
Understanding Medical Words

Unit Description
This unit describes the meanings of medical words.

Unit Objectives
By the end of this unit the student will be able to:
1. Discuss the four parts of medical terms.
2. Recognize word roots and combining forms.
3. Identify the most common prefixes and suffixes.
4. Describe the anatomical positions.
5. Define the body planes.
6. Identify regions of the body.
7. Define directional and positional terms.
8. Build, divide, spell and pronounce common medical words.

Unit Topics
1a.1 Understanding medical words
1a.2 Parts of a medical term
1a.3 Word and combining forms
1a.4 Common prefixes and suffixes
1a.5 Singular and plural endings
1a.6 Abbreviations
1b.1 Body structure
1b.2 Anatomical positions
1b.3 Body planes
1b.4 Regions of the body
1b.5 Directional and positional terms

Lecture Titles
1a Word Roots
1b Prefixes and Suffixes
1c Body Organization

Unit References
(All links accessible as of 1/1/2014.)
Lecture 1a

Lecture 1a Charts, Tables, Figures and Images
None.

Lecture 1b

Lecture 1b Charts, Tables, Figures and Images
None.

Lecture 1c
3. For additional information on content covered in this unit, please visit: http://www.nlm.nih.gov/medlineplus/medicalwords/

Lecture 1c Charts, Tables, and Figures
None.

Lecture 1c Images

Unit Required Readings
None.

Unit Suggested Readings
1. A Medical Terminology Textbook from any publisher
2. A Medical Dictionary from any publisher
3. See links in Additional Materials for MedlinePlus

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Student Application Activities
comp3_unit1_activity.doc
comp3_unit1_activity_key.doc
comp3_unit1_self_assess.doc
comp3_unit1_self_assess_key.doc
comp3_unit1_additional_materials.doc

Additional Materials
1. Rules for plurals (table 1)
2. Word Roots Table (table 2)
3. Body Quadrants (table 3)
4. Abdominopelvic Regions (table 4)
5. Prefix Table (table 5)
6. Suffix Table (table 6)
7. Directional Terms (table 7)
8. Understanding Medical Words: A Tutorial from the National Library of Medicine. This is a tutorial from the National Library of Medicine that teaches about medical words. Available from: http://www.nlm.nih.gov/medlineplus/medicalwords.html Students will learn about how to put together parts of medical words. Students will also find quizzes to see what they have learned.
Component 3/Unit 2

Unit Title
Integumentary System

Unit Description
This unit describes the integumentary system.

Unit Objectives
By the end of this unit the student will be able to:
1. Define, understand and correctly pronounce medical terms related to the Integumentary System.
2. Describe common diseases and conditions with an overview of various treatments related to the Integumentary System.

Unit Topics
2.1 Integumentary System Overview
2.2 Organs of the Integumentary System
2.3 Function
2.4 Skin
2.5 Accessory Organs
2.6 Integumentary Combining Forms
2.7 Integumentary System Disorders/Diseases
2.8 Burns
2.9 Skin Cancer
2.10 Wounds
2.11 Common Hair problems
2.12 Nail Problems

Lecture Titles
2 Integumentary System

Unit References
(All links accessible as of 1/1/2014.)

Lecture 2

Lecture 2 Charts, Tables, and Figures
None.

*Indicates this link is no longer functional.
Lecture 2 Images
Slide 8, 9: Available From: http://www.cancer.gov/PublishedContent/Images/images/documents/42ec158c-ba4d-4bfd-a152-26987644af0a/symptom5.jpg*
Slide 8, 9: Available From: http://www.cancer.gov/PublishedContent/Images/images/documents/42ec158c-ba4d-4bfd-a152-26987644af0a/symptoms-top.jpg

Unit Required Readings
None.

Unit Suggested Readings
1. A Medical Terminology Textbook from any publisher
2. A Medical Dictionary from any publisher
3. See links in Additional Materials for MedlinePlus

Student Application Activities
comp3_unit2_activity.doc
comp3_unit2_activity_key.doc
comp3_unit2_self_assess.doc
comp3_unit2_self_assess_key.doc

Additional Materials
1. Anatomy videos. These animated videos show the anatomy of body parts and organ systems and how diseases and conditions affect them. These are in Quick Time format. Available from: http://www.nlm.nih.gov/medlineplus/anatomyvideos.html
   - Components of the skin
   - Feeling pain
   - Sun’s effect on skin
   - Sweating

*Indicates this link is no longer functional.
Component 3/Unit 3

Unit Title
Musculoskeletal System

Unit Description
This unit describes the musculoskeletal system.

Unit Objectives
By the end of this unit the student will be able to:
1. Define, understand and correctly pronounce medical terms related to the Musculoskeletal System.
2. Describe common diseases and conditions, with an overview of various treatments related to the Musculoskeletal System.

Unit Topics
3.1 Musculoskeletal system overview
3.2 Muscular components
3.3 Skeletal components
3.4 Functions
3.5 Bones
3.6 Joint
3.7 Muscles
3.8 Muscle disorders
3.9 Myopathy
3.10 Myositis
3.11 Muscular dystrophy
3.12 Muscular system combining forms
3.13 Skeletal system
3.14 Spinal column
3.15 Upper extremity
3.16 Lower extremity
3.17 Skeletal disorders
3.18 Fractures
3.19 Arthritis
3.20 Osteoporosis
3.21 Skeletal system combining forms

Lecture Titles
3 Musculoskeletal System
Unit References
(All links accessible as of 1/1/2014. *Indicates link is no longer functional.)

Lecture 3

Lecture 3 Charts, Tables, and Figures
None.

Lecture 3 Images

Unit Required Readings
None.

Unit Suggested Readings
1. A Medical Terminology Textbook from any publisher
2. A Medical Dictionary from any publisher
3. See links in Additional Materials for MedlinePlus

Student Application Activities
comp3_unit3_activity.doc
comp3_unit3_activity_key.doc
comp3_unit3_self_assess.doc
comp3_unit3_self_assess_key.doc

Additional Materials
1. Anatomy videos. These animated videos show the anatomy of body parts and organ systems and how diseases and conditions affect them. These are in Quick Time format. Available from: http://www.nlm.nih.gov/medlineplus/anatomyvideos.html
   - Herniated nucleus pulposus (slipped disk)

*Indicates this link is no longer functional.
2. Surgical Procedure videos. These are prerecorded webcasts of surgical procedures from actual operations performed at medical centers in the United States since 2004. The videos last an hour and are in flash format. Available from: http://www.nlm.nih.gov/medlineplus/surgeryvideos.html
   - Lumbar Fusion
   - Carpal Tunnel syndrome
   - Herniated Disk
   - Hip Replacement
   - Arthroscopic Surgery
   - Knee replacement
   - Scoliosis
   - Shoulder Injuries and Disorders
   - Spinal Diseases
   - Spinal Stenosis
Component 3/Unit 4

Unit Title
Blood, Lymphatic and Immune System

Unit Description
This unit describes the blood, lymphatic and immune systems.

Unit Objectives
By the end of this unit the student will be able to:
1. Define, understand and correctly pronounce medical terms related to the Blood, Lymphatic and Immune Systems.
2. Describe common diseases and conditions with an overview of various treatments related to the Blood, Lymphatic and Immune Systems.

Unit Topics
4.1 Blood Overview
4.2 Function
4.3 Blood Components
4.4 Blood cells
4.5 Plasma
4.6 Common Blood disorders/conditions
4.7 Iron deficiency Anemia
4.8 Sickle Cell Anemia
4.9 Blood Combining Forms
4.10 The Lymphatic and Immune Systems
4.11 Primary organs
4.12 Lymph nodes
4.13 Lymphatic vessels
4.14 Thymus gland
4.15 Tonsils
4.16 Functions
4.17 Immunity
4.18 Types
4.19 Natural Immunity
4.20 Passive Acquired immunity
4.21 Active Acquired immunity
4.22 Common Lymphatic and Immune disorders/conditions
4.23 Lymphedema

*Indicates this link is no longer functional.
4.24  Tonsillitis
4.25  AIDS
4.26  Lymphatic & Immune Combining Forms

Lecture Titles
4 Blood, Lymphatic, and Immune Systems

Unit References
(All links accessible as of 1/1/2014.)

Lecture 4

Lecture 4 Charts, Tables, and Figures
None.

Lecture 4 Images

Unit Required Readings
None.

Unit Suggested Readings
1. A Medical Terminology Textbook from any publisher
2. A Medical Dictionary from any publisher
3. See links in Additional Materials for MedlinePlus

Student Application Activities
comp3_unit4_activity.doc

*Indicates this link is no longer functional.
Additional Materials

1. Anatomy videos. These animated videos show the anatomy of body parts and organ systems and how diseases and conditions affect them. These are in Quick Time format. Available from: http://www.nlm.nih.gov/medlineplus/anatomyvideos.html
   - Blood clotting
   - Blood flow
   - Immune response
   - Lymph nodes
   - Lymphatics and the breast
   - Phagocytosis
   - Red blood cell production

2. Surgical Procedure videos. These are prerecorded webcasts of surgical procedures from actual operations performed at medical centers in the United States since 2004. The videos last an hour and are in flash format. Available from: http://www.nlm.nih.gov/medlineplus/surgeryvideos.html
   - Tonsils/Tonsillectomy
Component 3/Unit 5

Unit Title
Cardiovascular System

Unit Description
This unit describes the cardiovascular system.

Unit Objectives
By the end of this unit the student will be able to:
1. Define, understand and correctly pronounce medical terms related to the Cardiovascular System.
2. Describe common diseases and conditions with an overview of various treatments related to the Cardiovascular System.

Unit Topics
5.1 Cardiovascular System Overview
5.2 Function
5.3 Primary Organs
5.4 Heart
5.5 Atria
5.6 Ventricle
5.7 Septum
5.8 Blood Vessels
5.9 Common diseases/conditions
5.10 Atherosclerosis
5.11 Stroke
5.12 Hypertension
5.13 Myocardial Infarction
5.14 Cardiovascular Combining Forms

Lecture Titles
5 Cardiovascular System

Unit References
(All links accessible as of 1/1/2014.)

Lecture 5

*Indicates this link is no longer functional.

Lecture 5 Charts, Tables, and Figures
None.

Lecture 5 Images

Unit Required Readings
None.

Unit Suggested Readings
1. A Medical Terminology Textbook from any publisher
2. A Medical Dictionary from any publisher
3. See links in Additional Materials for MedlinePlus

Student Application Activities
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comp3_unit5_self_assess_key.doc

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Health IT Workforce Curriculum Terminology in Health Care and Public Health Settings Version 3.0/Spring 2012
This material was developed by The University of Alabama at Birmingham, funded by the Department of Health and Human Services, Office of the National Coordinator for Health Information Technology under Award Number 1U24OC000023
Additional Materials

1. Anatomy videos. These animated videos show the anatomy of body parts and organ systems and how diseases and conditions affect them. These videos are in Quick Time. Available from: http://www.nlm.nih.gov/medlineplus/anatomyvideos.html
   - Arrhythmias
   - Atherosclerosis
   - Blood pressure
   - Cardiac conduction system
   - Cardiomyopathy
   - Cardiovascular system
   - Coronary artery disease
   - Directional coronary atherectomy (DCA)
   - Heart bypass surgery
   - Heartbeat
   - Hypertension—overview
   - Percutaneous transluminal coronary angioplasty (PTCA)
   - Stroke
   - Stroke –secondary to cardiogenic embolism

2. Surgical Procedure videos. These are prerecorded webcasts of surgical procedures from actual operations performed at medical centers in the United States since 2004. The videos last an hour and are in flash format. Available from: http://www.nlm.nih.gov/medlineplus/surgeryvideos.html
   Cardiovascular System
   - Aortic Aneurysm
   - Arrhythmia
   - Atrial Fibrillation
   - Carotid Artery Disease
   - Congenital Heart Defects
   - Coronary Artery Bypass Surgery
   - Coronary Artery Disease
   - Heart Diseases
   - Heart Failure
   - Heart Valve Diseases
   - Heart Transplantation
   - Mitral Valve Prolapse
   - Pacemakers and Implantable Defibrillators
   - Peripheral Arterial Disease
   - Stroke

*Indicates this link is no longer functional.
Component 3/Unit 6

Unit Title
Digestive System

Unit Description
This unit describes the digestive system.

Unit Objectives
By the end of this unit the student will be able to:
1. Define, understand and correctly pronounce medical terms related to the Digestive System.
2. Describe common diseases and conditions with an overview of various treatments related to the Digestive System.

Unit Topics
6.1 Digestive system overview
6.2 Function
6.3 Primary organs
6.4 Accessory organs
6.5 Primary organs
6.6 Oral cavity
6.7 Pharynx
6.8 Esophagus
6.9 Stomach
6.10 Small intestine
6.11 Colon
6.12 Rectum and anus
6.13 Accessory organs
6.14 Salivary glands
6.15 Liver
6.16 Gallbladder
6.17 Pancreas
6.18 Common diseases/conditions
6.19 Peptic ulcer
6.20 Cholelithiasis
6.21 Crohn's disease
6.22 Digestive system combining forms

Lecture Titles
6 Digestive System

*Indicates this link is no longer functional.
Unit References
(All links accessible as of 1/1/2014)

Lecture 6

Lecture 6 Charts, Tables, and Figures
None.

Lecture 6 Images

*Indicates this link is no longer functional.
Unit Required Readings
None.

Unit Suggested Readings
1. A Medical Terminology Textbook from any publisher
2. A Medical Dictionary from any publisher
3. See links in Additional Materials for MedlinePlus

Student Application Activities
comp3_unit6_activity.doc
comp3_unit6_activity_key.doc
comp3_unit6_self_assess.doc
comp3_unit6_self_assess_key.doc

Additional Materials
1. Anatomy videos. These animated videos show the anatomy of body parts and organ systems and how diseases and conditions affect them. These videos are in Quick Time. Available from: http://www.nlm.nih.gov/medlineplus/anatomyvideos.html
   • Heartburn
   • Peristalsis
   • Stomach ulcer
   • Swallowing
2. Surgical Procedure videos. These are prerecorded webcasts of surgical procedures from actual operations performed at medical centers in the United States since 2004. The videos last an hour and are in flash format. Available from: http://www.nlm.nih.gov/medlineplus/surgeryvideos.html
   • Digestive System
   • Anal and Rectal Diseases
   • Bile Duct Diseases
   • Colonic Diseases
   • Colonic Polyps
   • Colorectal Cancer
   • Crohn’s Disease
   • Fistulas
   • Gallstones
   • GERD
   • Hernia
   • Hiatal Hernia

*Indicates this link is no longer functional.
- Pancreatic Cancer
- Pancreatic Diseases
- Weight Loss Surgery
Component 3/Unit 7

Unit Title
Endocrine System

Unit Description
This unit describes the endocrine system.

Unit Objectives
By the end of this unit the student will be able to:
1. Define, understand and correctly pronounce medical terms related to the Endocrine System.
2. Describe common diseases and conditions with an overview of various treatments related to the Endocrine System.

Unit Topics
7a.1 Overview of the Endocrine System
7a.2 Hormones
7a.3 Disorders
7a.4 Identification of the location of the endocrine glands
7a.5 Adrenal Glands
7a.6 Pancreas
7b.1 Pituitary Gland
7b.2 Pineal Gland
7b.3 Thyroid Gland
7b.4 Reproductive Organs
7b.5 Thymus Gland

Lecture Titles
7a Overview of the Endocrine System, Adrenal Glands, and Pancreas
7b Other Organs in the Endocrine System

Unit References
(All links accessible as of 1/1/2014)

Lecture 7a
Lecture 7a Charts, Tables, and Figures
None.

Lecture 7a Images

Lecture 7b


Lecture 7b Charts, Tables, and Figures
None.

Lecture 7b Images
*Indicates this link is no longer functional.
Unit Required Readings
None.

Unit Suggested Readings
1. A Medical Terminology Textbook from any publisher
2. A Medical Dictionary from any publisher
3. See links in Additional Materials for MedlinePlus

Student Application Activities
comp3_unit7_activity.doc
comp3_unit7_activity_key.doc
comp3_unit7_self_assess.doc
comp3_unit7_self_assess_key.doc

Additional Materials
1. Anatomy videos. These animated videos show the anatomy of body parts and organ systems and how diseases and conditions affect them. These videos are in Quick Time. Available from: http://www.nlm.nih.gov/medlineplus/anatomyvideos.html
   - Diabetes – retinal conditions
   - Endocrine glands
   - Pituitary gland
2. Surgical Procedure videos. These are prerecorded webcasts of surgical procedures from actual operations performed at medical centers in the United States since 2004. The videos last an hour and are in Flash format. Available from: http://www.nlm.nih.gov/medlineplus/surgeryvideos.html
   Endocrine System
   - Minimally Invasive Endoscopic Pituitary Surgery
   - Partial Nephrectomy
   - Advances in Parotidectomy and Thyroidectomy Surgery

*Indicates this link is no longer functional.
Component 3/Unit 8

Unit Title
Ears, Nose, Throat, Eye and Vision

Unit Description
This unit describes the ears, nose, throat, eyes and vision.

Unit Objectives
By the end of this unit the student will be able to:
1. Define, understand and correctly pronounce medical terms related to the Ears, Nose and Throat and Eyes and Vision.
2. Describe common diseases and conditions with an overview of various treatments related to the Ears, Nose and Throat and Eyes and Vision.

Unit Topics
8a.1 Overview of the Ear Anatomy
8a.2 Hearing Loss and Deafness
8a.3 Ear Disorders and Diseases
8a.4 Overview of the Nose and Throat Anatomy
8a.5 Nasal Cavity Disorders
8a.6 Allergies
8a.7 Common Cold
8a.8 Hay Fever
8a.9 Deviated Septum
8a.10 Nasal Polyps
8a.11 Nosebleed
8a.12 Rhinitis
8a.13 Sinusitis
8a.14 Nasal Cancer
8a.15 Paranasal Sinuses
8a.16 Throat Disorders
8a.17 Cough
8a.18 Diphtheria
8a.19 Streptococcal Infections
8a.20 Head and Neck Cancers
8b.1 Overview of the Eye Anatomy
8b.2 Eye Disorders and Diseases
8b.3 Cataract
8b.4 Color Blindness
8b.5 Diabetic Retinopathy
8b.6 Glaucoma
8b.7 Eye Infections
8b.8 Conjunctivitis
8b.9 Stye
8b.10 Macular Degeneration
8b.11 Refractive Errors
8b.12 Myopia
8b.13 Hyperopia
8b.14 Presbyopia
8b.15 Astigmatism
8b.16 Eye Cancers
8b.17 Melanoma
8b.18 Lymphoma

Lecture Titles
8a Ears, Nose, and Throat
8b Eyes and Vision

Unit References
(All links accessible as of 1/1/2014)

Lecture 8a

Lecture 8a Charts, Tables, and Figures
None.

Lecture 8a Images


Lecture 8b
Lecture 8b Charts, Tables, and Figures
None.

Lecture 8b Images

Unit Required Readings
None.

Unit Suggested Readings
1. A Medical Terminology Textbook from any publisher
2. A Medical Dictionary from any publisher
3. See links in Additional Materials for MedlinePlus

Student Application Activities
comp3_unit8_activity.doc
comp3_unit8_activity_key.doc
comp3_unit8_self_assess.doc
comp3_unit8_self_assess_key.doc

Additional Materials
1. Anatomy videos. These animated videos show the anatomy of body parts and organ systems and how diseases and conditions affect them. These videos are in Quick Time. Available from: http://www.nlm.nih.gov/medlineplus/anatomyvideos.html
   - Cataract
   - Corneal injury
   - Macular degeneration
   - Retina
2. Surgical Procedure videos. These are prerecorded webcasts of surgical procedures from actual operations performed at medical centers in the United States since 2004. The videos last an hour and are in Flash format. Available from: http://www.nlm.nih.gov/medlineplus/surgeryvideos.html
   - Ears, Nose & Throat and Eyes
   - Acoustic Neuroma Procedure
   - Bone Anchored Hearing Treatment Procedure
   - Diabetic Vitrectomy Surgery

*Indicates this link is no longer functional.
Component 3/Unit 9

Unit Title
Nervous System

Unit Description
This unit describes the nervous system.

Unit Objectives
By the end of this unit the student will be able to:
1. Define, understand and correctly pronounce medical terms related to the Nervous System.
2. Describe common diseases and conditions with an overview of various treatments related to the Nervous System.

Unit Topics
9.1 Overview of the Anatomy of the Nervous System
9.2 Central Nervous System
9.3 Brain
9.4 Spinal Cord
9.5 Cerebrospinal fluid
9.6 Cerebrum
9.7 Hypothalamus
9.8 Cerebellum
9.9 Peripheral Nervous System
9.10 Cranial Nerves
9.11 Spinal Nerves
9.12 Brain Disorders and Diseases
9.13 Alzheimer’s Disease
9.14 Brain Aneurysm
9.15 Brain Cancer
9.16 Epilepsy
9.17 Parkinson’s Disease
9.18 Stroke
9.19 Ischemic
9.20 Hemorrhagic
9.21 Spinal Cord Disorders and Disease
9.22 Arteriovenous Malformation
9.23 Meningitis
9.24 Multiple Sclerosis

*Indicates this link is no longer functional.

Health IT Workforce Curriculum  Terminology in Health Care and Public Health Settings Version 3.0/Spring 2012

This material was developed by The University of Alabama at Birmingham, funded by the Department of Health and Human Services, Office of the National Coordinator for Health Information Technology under Award Number 1U24OC000023
Lecture Titles
9 Nervous System

Unit References
(All links accessible as of 1/1/2014)

Lecture 9

Lecture 9 Charts, Tables, and Figures
None.

Lecture 9 Images
Slide 6: Licensed under the Creative Commons Attribution 2.5 Available from: http://commons.wikimedia.org/wiki/File:Brain_human_normal_inferior_view_with_labels_en.svg

Unit Required Readings
None.

Unit Suggested Readings
1. A Medical Terminology Textbook from any publisher
2. A Medical Dictionary from any publisher
3. See links in Additional Materials for MedlinePlus

Student Application Activities
comp3_unit9_activity.doc
comp3_unit9_activity_key.doc
comp3_unit9_self_assess.doc
comp3_unit9_self_assess_key.doc

*Indicates this link is no longer functional.
Additional Materials

1. Anatomy videos. These animated videos show the anatomy of body parts and organ systems and how diseases and conditions affect them. These videos are in Quick Time. Available from: http://www.nlm.nih.gov/medlineplus/anatomyvideos.html
   - Brain components
   - Nerve Conduction

2. Surgical Procedure videos. These are prerecorded webcasts of surgical procedures from actual operations performed at medical centers in the United States since 2004. The videos last an hour and are in Flash format. Available from: http://www.nlm.nih.gov/medlineplus/surgeryvideos.html
   Nervous System
   - Vagus Nerve Stimulation (VNS Therapy)
   - Minimally Invasive-Endoscopic Intraventricular Neurosurgery
Component 3/Unit 10

Unit Title
Reproductive System

Unit Description
This unit describes the reproductive systems.

Unit Objectives
By the end of this unit the student will be able to:
1. Define, understand and correctly pronounce medical terms related to the Female Reproductive System and Male Reproductive System.
2. Describe common diseases and conditions with an overview of various treatments related to the Female Reproductive System and Male Reproductive System.

Unit Topics
10a.1 Overview of the female reproductive system anatomy
10a.2 Breast
10a.3 Ovary
10a.4 Fallopian tube
10a.5 Uterus
10a.6 Cervix
10a.7 Vagina
10a.8 Breast disorders and diseases
10a.9 Fibrocystic breast
10a.10 Cysts
10a.11 Fibroadenomas
10a.12 Intraductal papillomas
10a.13 Breast Cancer
10a.14 Cervical disorders and disease
10a.15 Cervicitis
10a.16 Cervical incompetence
10a.17 Cervical polyps and cysts
10a.18 Human papillomavirus (HPV)
10a.19 Gonorrhea
10a.20 Trichomoniasis
10a.21 Ovarian disorders and diseases
10a.22 Pelvic inflammatory disease
10a.23 Uterine disorders and diseases

*Indicates this link is no longer functional.
10a.24 Dysfunctional uterine bleeding
10a.25 Endometriosis
10a.26 Uterine fibroids
10a.27 Adenomyosis
10a.28 Vaginal disorders and diseases
10a.29 Vaginal cancer
10b.1 Overview of the male reproductive system anatomy
10b.2 Testes
10b.3 Scrotum
10b.4 Excretory ducts
10b.5 Seminal vesicles
10b.6 Prostate gland
10b.7 Penis
10b.8 Disorders and diseases of the penis
10b.9 Balanitis
10b.10 Erectile dysfunction
10b.11 Infections
10b.12 Chlamydia
10b.13 Genital warts
10b.14 Gonorrhea
10b.15 Disorders and diseases of the prostate
10b.16 Prostatitis
10b.17 Benign prostatic hypertrophy (BPH)
10b.18 Prostate cancer
10b.19 Disorders and diseases of the testicles
10b.20 Testicular disorders
10b.21 Testicular cancer

Lecture Titles
10a Female Reproductive System
10b Male Reproductive System

Unit References
(All links accessible as of 1/1/2014)

Lecture 10a

*Indicates this link is no longer functional.
Lecture 10a Charts, Tables, and Figures
None.

Lecture 10a Images

Lecture 10b

Lecture 10b Charts, Tables, and Figures
None.

Lecture 10b Images

Unit Required Readings
None.

Unit Suggested Readings
1. A Medical Terminology Textbook from any publisher
2. A Medical Dictionary from any publisher
3. See links in Additional Materials for MedlinePlus

Student Application Activities
comp3_unit10_activity.doc
comp3_unit10_activity_key.doc
comp3_unit10_self_assess.doc
comp3_unit10_self_assess_key.doc

Additional Materials
1. Anatomy videos. These animated videos show the anatomy of body parts and organ systems and how diseases and conditions affect them. These videos are in Quick Time. Available from: http://www.nlm.nih.gov/medlineplus/anatomyvideos.html
   • Cesarean section

*Indicates this link is no longer functional.
- Lymphatics and the breast
- Enlarged prostate gland
- Vasectomy

- Robot-Assisted Laparoscopic Prostatectomy
- Breast Cancer Treatment
- Varicocele Surgery
- Robot-Assisted Gynecologic Oncology Surgery

*Indicates this link is no longer functional.
Component 3/Unit 11

Unit Title
Respiratory System

Unit Description
This unit describes the respiratory system.

Unit Objectives
By the end of this unit the student will be able to:
1. Define, understand and correctly pronounce medical terms related to the Respiratory System.
2. Describe common diseases and conditions with an overview of various treatments related to the Respiratory System.

Unit Topics
11.1 Overview of the Anatomy of the Respiratory System
11.2 Upper Respiratory Tract
11.3 Lower Respiratory Tract
11.4 Diseases and Disorders of the Bronchus
11.5 Asthma
11.6 Bronchitis
11.7 Diseases and Disorders of the Pharynx
11.8 Tonsillitis
11.9 Pharyngitis
11.10 Head and Neck Cancer
11.11 Diseases and Disorders of the Lung
11.12 Cystic Fibrosis
11.13 Lung Transplantation
11.14 Pneumonia
11.15 Pulmonary Embolism
11.16 Pulmonary Hypertension

Lecture Titles
11 Respiratory System

Unit References
(All links accessible as of 1/1/2014)

Lecture 11

*Indicates this link is no longer functional.

Lecture 11 Charts, Tables, and Figures
None.

Lecture 11 Images

Unit Required Readings
None.

Unit Suggested Readings
1. A Medical Terminology Textbook from any publisher
2. A Medical Dictionary from any publisher
3. See links in Additional Materials for MedlinePlus

Student Application Activities
comp3_unit11_activity.doc
comp3_unit11_activity_key.doc
comp3_unit11_self_assess.doc
comp3_unit11_self_assess_key.doc

Additional Materials
1. Anatomy videos. These animated videos show the anatomy of body parts and organ systems and how diseases and conditions affect them. These videos are in Quick Time. Available from: http://www.nlm.nih.gov/medlineplus/anatomyvideos.html
   • Allergies
   • Breathing
2. Surgical Procedure videos. These are prerecorded webcasts of surgical procedures from actual operations performed at medical centers in the United States since 2004. The videos last an hour and are in Flash format. Available from: http://www.nlm.nih.gov/medlineplus/surgeryvideos.html
   Respiratory System
   • Minimally Invasive Treatment for Lung Cancer
   • Video Assisted Thoracic Surgery (VATS) Lobectomy and Lymphadenectomy for Lung Cancer
   • Video Assisted Thoracoscopy Lung Resection

*Indicates this link is no longer functional.
Component 3/Unit 12

Unit Title
Urinary System

Unit Description
This unit describes the urinary system.

Unit Objectives
By the end of this unit the student will be able to:

1. Define, understand and correctly pronounce medical terms related to the Urinary System.
2. Describe common diseases and conditions with an overview of various treatments related to the Urinary System.

Unit Topics
12.1 Overview of the Anatomy of the Urinary System
12.2 Kidneys
12.3 Ureters
12.4 Urinary Bladder
12.5 Urethra
12.6 Diseases and Disorders of the Urinary System
12.7 Bladder Diseases
12.8 Cystitis
12.9 Urinary Tract Infection
12.10 Interstitial Cystitis
12.11 Diagnostic Tests
12.12 Urine Tests
12.13 X-rays
12.14 Cystoscopy
12.15 Bladder Cancer
12.16 Diseases and Disorders of the Kidney
12.17 Nephrolithiasis
12.18 Diabetic Nephropathy
12.19 Kidney Failure Treatments
12.20 Hemodialysis
12.21 Peritoneal Dialysis
12.22 Kidney Transplantation
12.23 Wilms’ Tumor
12.24 Renal Cancer

*Indicates this link is no longer functional.
Lecture Titles
12 Urinary System

Unit References
(All links accessible as of 1/1/2014)

Lecture 12

Lecture 12 Charts, Tables, and Figures
None.

Lecture 12 Images

Unit Required Readings
None.

Unit Suggested Readings
1. A Medical Terminology Textbook from any publisher
2. A Medical Dictionary from any publisher
3. See links in Additional Materials for MedlinePlus

Student Application Activities
comp3_unit12_activity.doc
comp3_unit12_activity_key.doc
comp3_unit12_self_assess.doc
comp3_unit12_self_assess_key.doc

Additional Materials
1. Anatomy videos. These animated videos show the anatomy of body parts and organ systems and how diseases and conditions affect them. These videos are in Quick Time. Available from: http://www.nlm.nih.gov/medlineplus/anatomyvideos.html
   • Bladder function – neurological control
   • Kidney Stones
2. Surgical Procedure videos. These are prerecorded webcasts of surgical procedures from actual operations performed at medical centers in the United States since 2004. The videos last an hour and are in Flash format. Available from: http://www.nlm.nih.gov/medlineplus/surgeryvideos.html

Urinary System
- Living Donor Kidney Transplant Surgery
- Innovative Incontinence Surgery: The Male Sling

*Indicates this link is no longer functional.
Component 3/Unit 13

Unit Title
Public Health and Healthcare System Terminology

Unit Description
This unit describes public health.

Unit Objectives
By the end of this unit the student will be able to:
1. Define frequently used public health terms.
2. Identify distinguishing features of public health.
3. Identify categories and factors that influence health.
4. Identify terms commonly used as measures of health status.
5. Define frequently used healthcare systems terms.
6. Identify and define types of patients in various healthcare settings.
7. Identify and define the healthcare professions.

Unit Topics
13a.1 What is Public Health?
13a.2 Public Health Definitions
13a.3 Public Health Terms
13a.4 Features of Public Health
13a.5 Defining Health
13a.6 Factors that influence Health
13a.7 Measurement of Health Status
13b.1 Healthcare System Terms
13b.2 Healthcare Services
13b.3 Healthcare Professionals
13b.4 Healthcare Services Terms

Lecture Titles
13a Public Health Terminology
13b Healthcare System Terminology

Unit References
(All links accessible as of 1/1/2014.)
Lecture 13a


*Indicates this link is no longer functional.

Lecture 13a Charts, Tables, and Figures
None.

Lecture 13a Images
Slide 6, 11, 18, 19: Microsoft clip art. Used with permission from Microsoft

Lecture 13b

*Indicates this link is no longer functional.


Lecture 13b Charts, Tables, Figures and Images
None.

Unit Required Readings
None.

Unit Suggested Readings
2. Review information regarding the variety of information from the Centers for Disease Control and Prevention. Available from: http://www.cdc.gov/
5. Introduction to Public Health from any basic public health textbook

Student Application Activities
comp3_unit13_activity.doc
comp3_unit13_activity_key.doc
comp3_unit13_self_assess.doc
comp3_unit13_self_assess_key.doc

Additional Materials
None.

*Indicates this link is no longer functional.
Component 3/Unit 14

Unit Title
What is Health Information Management and Technology?

Unit Description
This unit describes health information management and technology.

Unit Objectives
By the end of this unit the student will be able to:
1. Define and explain the terms and concepts used in the field of Health Information Management and Technology.
2. Understand the terms that frame Health Information Management (HIM) and Health Information Technology (HIT) practice.
3. Describe health IT hardware and software.
4. Define acronyms and abbreviations.

Unit Topics
14.1 Electronic Health Information Management
14.2 Health Information Technology: Hardware and Software
14.3 Types of Networks
14.4 Data Entry Devices and Locations
14.5 Commonly Used Health Information Technology (HIT) Acronyms
14.6 Professional Organizations Supporting HIT
14.7 National Agencies Supporting HIT
14.8 US Governmental Oversight for HITECH
14.9 Organizations Supporting HIT Standards
14.10 Commonly Used Health Information Technology Acronyms
14.11 Commonly Used HIT Acronyms
14.12 Commonly Used HIPAA Acronyms

Lecture Titles
14 What is Health Information Management and Technology?

Unit References
(All links accessible as of 1/1/2014)

*Indicates this link is no longer functional.
Lecture 14
4. AHIMA. HIM role in EHR management and the legal EHR. Available from: http://www.ahima.org/resources/ehrroles.aspx
5. HRSA. About HRSA. Available from: http://www.hrsa.gov/about/
ONC. Acronyms. Available from: http://healthit.hhs.gov/portal/server.pt/community/health_it_hhs_gov__acronyms/1217*

Lecture 14 Charts, Tables, and Figures
None.

Lecture 14 Images
Slides 5, 6: Microsoft clip art. Used with permission from Microsoft.

Unit Required Readings
None.

Unit Suggested Readings
1. a. Visit the Home Page of The Office of the National Coordinator for Health Information Technology (ONCHIT), at http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov_home/1204* and read information under the following categories:
   • Why Health IT?
   • Improving Patient Care
   • What’s New?
   b. From the Home Page, select Regulations and Guidance from the left hand menu and then Meaningful Use from the Quick Links Menu and review the information on “Electronic Health Records and Meaningful Use”.
   c. From the Meaningful Use page, click on the Information for Providers button and review information on “Being a Meaningful User of Electronic Health Records”.

*Indicates this link is no longer functional.
d. Return to the **Meaningful Use** page and select the **Consumers** button to review information on “Electronic Health Records: Improving America’s Health Care”.


5. Visit the myPHR website at [http://myPHR.com](http://myPHR.com) and read the featured story “Electronic Health Records Improving Care”.


### Student Application Activities

- comp3_unit14_activity.doc
- comp3_unit14_activity_key.doc
- comp3_unit14_self_assess.doc
- comp3_unit14_self_assess_key.doc

### Additional Materials

None.
Component 3/Unit 15

Unit Title
Electronic Health Records

Unit Description
This unit describes the overview and introduction to the electronic health record (EHR).

Unit Objectives
By the end of this unit the student will be able to:
1. Identify the function of the health record.
2. Describe the American Recovery and Reinvestment Act of 2009 (ARRA) including the portion of the bill called the Health Information Technology for Economic and Clinical Health Act (HITECH) Act of 2009.
3. Define meaningful use.
4. Discuss the difference between an EHR, EMR, and PHR.
6. Identify the purposes of EHR components.
7. Describe methods to ensure data security and confidentiality.

Unit Topics
15a.1 Functions of the Health Record
15a.2 Electronic Health Record
15a.3 Past and Future
15a.4 Data Rich and Information Poor
15a.5 Rights of Information
15a.6 Health Information Technology Regulations
15a.7 American Recovery and Reinvestment Act (ARRA)
15a.8 Health Information Technology for Economic and Clinical Health Act (HITECH)
15a.9 Meaningful Use
15a.10 Regional Extension Centers (RECs)
15a.11 Data Capture and Data Sharing
15a.12 Improve Quality
15a.13 Engage Patients and Families
15a.14 Improve Care Coordination
15a.15 Improve Population and Public Health

*Indicates this link is no longer functional.
15a.16 Meaningful Use Rule
15b.1 The Electronic Health Record
15b.2 Users of the Electronic Health Record
15b.3 Components of an Electronic Medical Record
15b.4 Clinical Systems
15b.5 Personal Health Records
15b.6 Functions of Personal Health Records
15b.7 Personal Health Record Models
15b.8 Attributes of the HER
15b.9 Key EHR-Related Terms
15b.10 Data Security and Confidentiality
15b.11 Legal Protections
15b.12 Maintaining Confidentiality

Lecture Titles
15a Introduction to the EHR
15b Definitions and Concepts in the EHR

Unit References
(All links accessible as of 1/1/2014)

Lecture 15a
5. ONC. HITECH Programs. The Office of the National Coordinator for Health Information Technology. Available from: http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov_hitech_programs/1487*

*Indicates this link is no longer functional.
7. Office of the National Coordinator for Health IT. Health IT terms. [Internet] Available from: http://healthit.hhs.gov/portal/server.pt/community/health_it_hhs_gov__glossary/1256*

8. ONC. About ONC. The Office of the National Coordinator for Health Information Technology. Available from: http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov__onc/1200*


**Lecture 15a Charts, Tables, and Figures**
None.

**Lecture 15a Images**
Slides 6, 15, 16, 17, 18: Clip Art. Available from: Microsoft clips online. Used with permission from Microsoft.

**Lecture 15b**

*Indicates this link is no longer functional.*

Health IT Workforce Curriculum   Terminology in Health Care and Public Health Settings  
Version 3.0/Spring 2012

This material was developed by The University of Alabama at Birmingham, funded by the Department of Health and Human Services, Office of the National Coordinator for Health Information Technology under Award Number 1U24OC000023
7. Office of the National Coordinator for Health IT. Health IT terms. [Internet] Available from: http://healthit.hhs.gov/portal/server.pt/community/health_it_hhs_gov__glossary/1256*

Lecture 15b Charts, Tables, and Figures
None.

Lecture 15b Images
Slides 7, 8, 17, 20, 21: Microsoft clip art. Used with permission from Microsoft.

Unit Required Readings
None.

Unit Suggested Readings
3. An introduction to healthcare informatics book from any publisher.

Student Application Activities
comp3_unit15_activity.doc
comp3_unit15_activity_key.doc
comp3_unit15_self_assess.doc
comp3_unit15_self_assess_key.doc

Additional Materials
None.

*Indicates this link is no longer functional.
Component 3/Unit 16

Unit Title
Standards to Promote Health Information Exchange

Unit Description
This unit describes definitions and concepts in the electronic health record (EHR).

Unit Objectives
By the end of this unit the student will be able to:
1. Define terms related to standardized terminologies.
2. Identify and define HIPAA standard code sets.
3. Identify and define terminologies and vocabularies that represent nursing care.
4. Define and give examples of data interchange standards.

Unit Topics
16.1 Terms Related to Health Information Standards
16.2 EHR Messaging Standards
16.3 Digital Imaging Communications in Medicine (DICOM)
16.4 Health Level 7 (HL7)
16.5 Classifications, Terminologies and Vocabularies
16.6 Clinical Terminologies
16.7 Health Information Standards
16.8 HIPAA Standard Code Sets
16.9 International Classification of Diseases, 9th Revision, Clinical Modification
16.10 National Drug Codes (NDC)
16.11 Healthcare Common Procedure Coding System (HCPCS)
16.12 American Nursing Association’s Recommended Standardized Nursing Terminologies
16.13 North American Nursing Diagnosis Association (NAND)
16.14 Nursing Intervention Classification (NIC)
16.15 Nursing Outcomes Classification (NOC)
16.16 Perioperative Nursing Data Set (PNDS)
16.17 National Committee on Vital and Health Statistics Recommended Data Interchange Standards
16.18 Health Level 7
16.19 SNOMED CT

*Indicates this link is no longer functional.
16.20 Logical Observation Identifiers, Names, and Codes (LOINC)
16.21 Consolidated Health Informatics (CHI) Initiative

Lecture Titles

16 Standards to Promote Health Information Exchange

Unit References
(All links accessible as of 1/1/2014)

Lecture 16

4. Center for Nursing Classification [Internet]. Available from: http://ncvhs.hhs.gov/970416w6.htm*

*Indicates this link is no longer functional.

This material was developed by The University of Alabama at Birmingham, funded by the Department of Health and Human Services, Office of the National Coordinator for Health Information Technology under Award Number 1U24OC000023


Lecture 16 Charts, Tables, Figures and Images
None.

Unit Required Readings
None.

Unit Suggested Readings
4. A introduction to healthcare informatics book from any publisher

Student Application Activities
comp3_unit16_activity.doc
comp3_unit16_activity_key.doc
comp3_unit16_self_assess.doc
comp3_unit16_self_assess_key.doc

Additional Materials
None.

*Indicates this link is no longer functional.
**Component Acronym Glossary**

ACB–Authorized Certification Body  
ACTH–Adrenocorticotropin hormone  
AD–Alzheimer’s Disease  
ADH–Antidiuretic hormone  
ADT–Admission, Discharge & Transfer  
AHIMA–American Health Information Management Association  
AHRQ–Agency for Healthcare Research & Quality  
AIDS–acquired immunodeficiency syndrome  
AMD–age-related macular degeneration  
AMIA–American Medical Informatics Association  
ARRA–American Recovery and Reinvestment Act  
ATCB–Authorized Testing and Certification Body  
AVM–Arteriovenous malformation  
BA–Business Associate  
BAA–Business Associate Agreement  
BCMA–Bar-code medication administration  
BPH–Benign prostatic hypertrophy  
BRCA1 and 2–Breast cancer gene 1 and 2  
CAH–Critical Access Hospital  
CBMR–Computer-based medical record  
CCC–Clinical Care Classification  
CCHIT–Certification Commission for Health Information Technology  
CD–Compact disc  
CDC–Centers for Disease Control and Prevention  
CDS–Clinical decision support  
CE–Covered Entity  
CF–Cystic fibrosis  
CFR–Code of Federal Regulation  
CHI–Consolidated health informatics  
CIO–Chief Information Officer  
CMS–Centers for Medicare & Medicaid Services  
COPD–chronic obstructive pulmonary disease  
CP–cerebral palsy  
CPOE–Computerized provider order entry  
CPR–Computerized patient record  
CPT–Current Procedural Terminology  
CPU–Central Processing Unit  
CSF–Cerebrospinal Fluid  
CT–Computerized tomography
DB—decibels
DES—diethylstilbestrol
DI—Diabetes insipidus
DM—Diabetes mellitus
DPT—diphtheria, pertussis and tetanus (vaccine)
DRG—Diagnostic Related Group
DSS—Decision support system
DVT—deep vein thrombosis
eAccess—Electronic Access
eHIM®—Electronic health information management
EHR—Electronic health record
EHRA—HIMSS Electronic Health Record Association
EHRVA—Electronic Health Record Vendors Association
EMG—electromyogram
EMR—Electronic Medical Record
ENT—Ear, Nose & Throat
EPR—Electronic patient record
ER—Emergency room
ERCP—Endoscopic Retrograde Cholangiopancreatography
eRx—Electronic prescribing
ESRD—end stage renal disease
eSubmit—Electronic Submit
ESWL—extracorporeal shock wave lithotripsy
FDA—Food and Drug Administration
FHA—Federal Health Architecture
FSH—follicle-stimulating hormone
GERD—gastroesophageal reflux disease
GH—Growth hormone
GI—gastrointestinal
GnRH—Gonadotropin-Releasing Hormone
HCl—hydrochloric acid
HHS—Department of Health and Human Services
HIE—Health Information Exchange
HIM—Health information management
HIMSS—Healthcare Information and Management Systems Society
HIPAA—Health Insurance Portability and Accountability Act
HIT—Health information technology
HITECH—Health Information Technology for Economic and Clinical Health
HITSP—Health Information Technology Standards Panel
HIV—human immunodeficiency virus
HL-7 – Health Level 7
HPV – Human papillomavirus
HRSA – Health Resources and Services Administration
ICD-9-CM – International Classification of Diseases – Ninth Revision – Clinical Modification
ICD-10-CM – International Classification of Diseases – Tenth Revision – Clinical Modification
ICNP® – International Classification for Nursing Practice
IFR – Interim Final Rule
IOM – Institute of Medicine
ISO – International Organization for Standardization
IVP – Intravenous pyelogram
LH – Luteinizing hormone
LOINC – Logical Observation Identifiers Names and Codes
LSP – Language for Special Purposes
MD – Macular degeneration
MD – Muscular dystrophy
MI – Myocardial infarction
MRCP – Magnetic resonance cholangiopancreatography
MRI – Magnetic resonance imaging
MS – Multiple sclerosis
MS-DRG – Medicare Severity Diagnosis Related Group
MU – Meaningful Use
NANDA – North American Nursing Diagnosis Association
NHIN – Nationwide Health Information Network
NPRM – Notice of Proposed Rule-Making
NIC – Nursing Intervention Classification
NIH – National Institutes of Health
NLM – National Library of Medicine
OCR – Office of Civil Rights
OM – Otitis media
ONC – Office of the National Coordinator
ONCHIT – Office of the National Coordinator for Health Information Technology
PDA – Personal Digital Assistant
PHI – Protected Health Information
PHR – Personal Health Record
PID – Pelvic inflammatory disease
PMS – Premenstrual Syndrome
PNDS – Perioperative Nursing Data Set
POF–Premature Ovarian Failure
PQRI–Physician Quality Reporting Initiative
PSA–Prostate specific antigen
REC–Regional Extension Center
RHIO–Regional Health Information Network
Rx–prescription
SDO–Standards Development Organization
SNOMED–Systemized Nomenclature of Medicine
SNOMED CT–Systematized Nomenclature of Medicine Clinical Terms
SPF–Sun protection factor
STD–Sexually transmitted disease
TIA–transient ischemic attack
TSH–Thyroid-stimulating hormone
TV–television
US–United States
USB–Universal Serial Bus
UTI–Urinary tract infection
VHA–Veterans Health Administration
VistA–Veterans Health Information Systems and Technology Architecture
WBC–white blood cell
WHO–World Health Organization