











Allied Health I & II (Master)

September 2016

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p><u>Students should make a sincere effort to answer the following questions before starting the chapter;</u></p> <p>1. What are the Sciences of Anatomy & Physiology? <input type="checkbox"/></p> <p>2. What is medical terminology? <input type="checkbox"/></p> <p>3. What is the basic word structure? <input type="checkbox"/></p>	<p><u>At the end of the chapter, students should be able to:</u></p> <p>* Describe the basic functions of living organisms. <input type="checkbox"/></p> <p>* Define anatomy & physiology, and describe the various specialties within each discipline. <input type="checkbox"/></p> <p>* Identify the organ systems of the human body, and the major</p>	<p><u>During the coverage of the chapter, the following teaching strategies will be adapted to suit all different learning styles:</u></p> <p>* Attention grabber followed by a Do Now activity. The following terms are used for vocabulary enforcement; bios, cardium, dorsum, homeo, logy, medianus, paries, pathos, peri, pronus, supinus, stasis, venter.</p> <p>The Do Now can be one of the following;</p> <ol style="list-style-type: none"> word search Criss-Cross Fallen phrase Cryptograms Hidden message <p>these can be downloaded from: www.puzzlemaker.discoveryeducation.com</p> <p>** Watching a DVD "The Ultimate Guide: The Human Body" for 15 minutes, followed by class discussion.</p>	<p><u>At the end of the chapter, students will be assessed for knowledge. Assessment can be either directly or alternatively as follows:</u></p> <p>* Frequent quizzes / chapter 1</p> <p>The website; www.wps.aw.com/bc_martini_eap_4/ offers quizzes in 4 formats:</p> <ol style="list-style-type: none"> Multiple choice Matching Fill in the blanks Labeling <p>Students are encouraged to take quizzes online and e-mail the results to their teacher.</p> <p>* Writing scientific essays.</p> <p>Students will read the top 10 stories of the month in the field of health and medicine.</p> <p>Each student will choose one story, read it, write a one-page scientific</p>	<p><u>The following text books are used in the classroom; outside reading is highly recommended:</u></p> <ol style="list-style-type: none"> Essentials of Anatomy & Physiology. Martini and Bartholomew. Fourth Edition. Text book and Study Guide. 2007 Medical Terminology. Davi-Ellen Chabner. 4th Edition. Text book & Workbook. 2007 The school and public library; encyclopedias, and reference books. The Internet;









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<p>4. What are the safety measures required to work in a science lab? </p> <p>5. What is the language of anatomy? </p> <p>6. What interests you in allied health and health careers? </p>	<p>componenets of each system. </p> <p>* Identify the major levels of organization in living organisms. </p> <p>* Explain the significance of homeostasis. </p> <p>* Describe how negative and positive feedback is involved in homeostatic regulation. </p>	<p>DVDs are provided by The Discovery Channel through their website; www.discovery.com</p> <p>*** Creating a chapter outline and a vocabulary list for chapter 1, page 2; An Introduction to Anatomy and Physiology.</p> <p>The outline should cover the followings key points:</p> <ol style="list-style-type: none"> 1. <u>The Sciences of Anatomy and Physiology</u> <ol style="list-style-type: none"> 1.a Anatomy 1.b Physiology 2. <u>Levels of Organizations</u> 3. <u>An Introduction to Organ Systems</u> 4. <u>Homeostasis and System Integration</u> <ol style="list-style-type: none"> 4.a Homeostatic regulation 4.b Homeostasis and disease 5. <u>The Language of Anatomy</u> <ol style="list-style-type: none"> 5.a Surface anatomy 5.b Sectional anatomy 	<p>essay about, and then present it to the class. Open discussion will follow.</p> <p>Students may use the following websites;</p> <ul style="list-style-type: none"> • www.time.com • www.sciam.com • www.sciencedaily.com <p>Students may also use the corresponding magazines;</p> <ol style="list-style-type: none"> 1. Time 2. Scientific American 3. Science Daily <p>* <u>Research papers & Projects;</u></p> <ul style="list-style-type: none"> • Disease Diary  <p>* <u>Labeling and Flashcards; chapter 1</u></p>	<p><u>Teaching Controversial Topics;</u> www.accessexcellence.org</p> <p>The fluid exchange activity is designed to simulate the uncontrolled spread of a disease through a population.</p> <p><u>Medicine, Technology and Society;</u> www.accessexcellence.org</p> <p>Understanding alternative approaches to healing</p> <p><u>Lab Safety;</u> www.accessexcellence.org</p> <p>An alternative to the standard lecture on lab safety which introduces group work and creativity in the opening days of school.</p> <p>www.getbodysmart.com</p> <p>www.aw-bc.com/applace/</p>





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	<p>* Use anatomical terms to describe body sections, body regions, and relative positions. </p> <p>* Identify the major body cavities and their subdivisions. </p>	<p>**** Students will work in small groups of 3-4 students each. They will be engaged in answering the open-ended questions "Level 2; Reviewing Concepts" 22-28, page 27.</p> <p>They will be also engaged in answering "Level 3; Critical Thinking and Clinical Applications" 29-30, page 27</p> <p>***** Field trips; Franklin Science Museum in Philadelphia, PA, Liberty Science Center in Jersey City, NJ, and Bodies in New York City, NY.</p> <p><i>In these trips, students will see 3-D models of the Human Body, will watch live surgery broadcasting from operating rooms all over the country through web conferencing, will dissect the human organs under the supervision of the museum specialists, will watch IMAX for the Human body, and will have interactive games and puzzles for the different human body systems and organs.</i></p>	<p>Using the following website; www.wps.aw.com/bc_martini_eap_4/</p> <p>This performance assessment will greatly inforce the new terms, their positions in the human body and their definitions</p> <p>* Written comprehensive chapter test, MCQs and open-ended questions</p>	<p>5. PowerPoint presentations;</p> <p>The Human Body. www.science.pppst.com/humanbody.html</p> <p>Labwork and Safety www.science.pppst.com/labwork.html</p> <p>6. Problem Solving and Critical Thinking;</p> <p>The Mystery Spot is an excellent site to enforce thinking and solving a health mystery.</p> <p>Working in pairs; solve the mystery; SNEEZE</p> <p>www.accessexcellence.org/AE/mspot/</p>

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			<p>ELLs present a powerpoint of the importance of Anatomy</p> <p>Allow bilingual dictionary</p> <p>Extra time when tested in English</p> <p>Vocabulary test</p>	<p>ELLs research the importance of Anatomy: ANATOMIA HUMANA www.artedynamicocomic.com</p> <p>ANTOMIA HUMANA - SISTEMA MUSCULAR www.es.wilipedia.org</p>

October 2016

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<p><u>Students should make a sincere effort to answer the following questions before starting the chapter;</u></p> <p>1. What is the chemical level of organization in the Human Body? <input type="checkbox"/></p> <p>2. What are the medical terms describing the organization of the body? <input type="checkbox"/></p> <p>3. What is the difference between organic and inorganic</p>	<p><u>At the end of the chapter, students should be able to:</u></p> <p>* Describe an atom, an element & a compound. <input type="checkbox"/></p> <p>* Compare the ways in which atoms combine to form molecules and compounds. <input type="checkbox"/></p> <p>* Use chemical notation to symbolize chemical reactions. <input type="checkbox"/></p>	<p><u>During the coverage of the chapter, the following teaching strategies will be adapted to suit all different learning styles:</u></p> <p>* Attention grabber followed by a Do Now activity. The following terms are used for vocabulary enforcement; anobole, endo, exo, glyco, hydro, lysis, katabole, katalysis, lipo, metabole, sakcharon, monosaccharide, disaccharide, polysaccharide, amino acids, polypeptides, fatty acids, triglycerides, nucleic acids.</p> <p>The Do Now can be one of the following;</p> <ol style="list-style-type: none"> word search Criss-Cross Fallen phrase Cryptograms Hidden message <p>these can be downloaded from: www.puzzlemaker.discoveryeducation.com</p> <p>** Watching a DVD " Human Body: Pushing The Limits" for 15 minutes,</p>	<p><u>At the end of the chapter, students will be assessed for knowledge. Assessment can be either directly or alternatively as follows:</u></p> <p>* Frequent quizzes / chapter 2</p> <p>The website; www.wps.aw.com/bc_martini_eap_4/ offers quizzes in 4 formats:</p> <ol style="list-style-type: none"> Multiple choice Matching Fill in the blanks Labeling <p>Students are encouraged to take quizzes online and e-mail the results to their teacher.</p> <p>* Writing scientific essays.</p> <p>Students will read the top 10 stories of the month in the field of health and medicine.</p> <p>Each student will choose one story, read it, write a one-page scientific</p>	<p><u>The following text books are used in the classroom; outside reading is highly recommended:</u></p> <ol style="list-style-type: none"> Essentials of Anatomy & Physiology. Martini and Bartholomew. Fourth Edition. Text book and Study Guide. 2007 Medical Terminology. Davi-Ellen Chabner. 4th Edition. Text book & Workbook. 2007 The school and public library; encyclopedias, and reference books. The Internet; Super Market Science; The King Sooper

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<p>compounds? </p> <p>4. How does the chemical properties of water make life possible? </p> <p>5. What is the pH scale and what is the role of buffers in body fluids? </p> <p>6. What are the physiological roles of inorganic compounds in our bodies?</p>	<p>* Distinguish among the three major types of chemical reactions that are important for studying physiology. </p> <p>* Describe the important role of enzymes in metabolism. </p> <p>* Discuss the structure and functions of carbohydrates, lipids, proteins, nucleic acids, and high-energy</p>	<p>followed by class discussion.</p> <p>DVDs are provided by The Discovery Channel through their website; www.discovery.com</p> <p>*** Creating a chapter outline and a vocabulary list for chapter 2, page 28; <u>The Chemical Level of Organization.</u></p> <p>The outline should cover the followings key points:</p> <ol style="list-style-type: none"> <u>Matter: Atoms and Molecules</u> <ol style="list-style-type: none"> The structure of an atom Chemical bonds Chemical compounds <u>Chemical Notations</u> <u>Chemical Reactions</u> <ol style="list-style-type: none"> Basic energy concepts Types of reactions Reversible reactions Enzymes <u>Inorganic Compounds</u> <ol style="list-style-type: none"> Carbon dioxide and oxygen Water and its properties 	<p>essay about, and then present it to the class. Open discussion will follow.</p> <p>Students may use the following websites;</p> <ul style="list-style-type: none"> www.time.com www.sciam.com www.sciencedaily.com <p>Students may also use the corresponding magazines;</p> <ol style="list-style-type: none"> Time Scientific American Science Daily <p>* <u>Research papers & Projects.</u></p> <p>Students will conduct the following 4 projects;</p> <ul style="list-style-type: none"> Mitosis Booklet  Meiosis Modeling  The Web  	<p><u>Lab</u> www.accessexcellence.org</p> <p>Successful completion of this activity requires that students read product labels, compare fat, sodium, and sugar contents of various food items, and then make judgments regarding the comparative "healthiness" of the available items.</p> <p><u>The Spread of HIV Through a Population;</u> www.accessexcellence.org</p> <p>Test tubes and phenolphthalein are used to demonstrate the epidemiology of AIDS</p> <p>www.getbodysmart.com</p> <p>www.aw-bc.com/applace/</p> <p>5. PowerPoint presentations;</p> <p><u>The Periodic Table</u> www.science.pppst.com/periodictable.html</p>

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	compounds.  * Analyze , pronounce, and spell terms related to organs & tissues in the body. 	4.c Inorganic acids and bases 4.d Salts 5. <u>Organic Compounds</u> 5.a carbohydrates 5.b Lipids and fats 5.c Proteins 5.d Nucleic acids 5.e High-energy compounds 6. <u>Chemicals and Cells</u> **** Students will work in small groups of 3-4 students each. They will be engaged in answering the open-ended questions " <u>Level 2; Reviewing Concepts</u> " 20-25 page 55. They will be also engaged in answering " <u>Level 3; Critical Thinking and Clinical Applications</u> " 26-27 page 55. ***** Field trips; <u>Franklin Science Museum</u> in Philadelphia, PA, <u>Liberty Science Center</u> in Jersey City, NJ, and <u>Bodies</u> in New York City, NY. <i>In these trips, students will see 3-D models</i>	• DNA and RNA Structure  • Element Wanted  * <u>Labeling and Flashcards; chapter 2</u> Using the following website; www.wps.aw.com/bc_martini_eap_4/ This performance assessment will greatly enforce the new terms, their positions in the human body and their definitions * Written comprehensive chapter test, MCQs and open-ended questions	<u>Acids, Bases, and pH scale</u> www.science.pppst.com/pHscale.html <u>6. Problem Solving and Critical Thinking;</u> The Mystery Spot is an excellent site to enforce thinking and solving a health mystery. Working in pairs; solve the mystery; <u>TWO FORKS, IDAHO</u> www.accessexcellence.org/AE/mspot/

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		<p><i>of the Human Body, will watch live surgery broadcasting from operating rooms all over the country through web conferencing, will dissect the human organs under the supervision of the museum specialists, will watch IMAX for the Human body, and will have interactive games and puzzles for the different human body systems and organs.</i></p>	<p>ELLs present a poster on the chemical level of organization in the Human Body</p> <p>Vocabulary test on terminologies</p> <p>Allow extra time when test is in English</p> <p>Bilingual dictionary</p>	<p>ELLs research on the chemical level of organization of the Human Body: ORGANIZACION DEL CUERPO HUMANO www.saludmed.com</p> <p>ANATOMIA Y FISIOLOGIA www.universidadabierta.edu</p> <p>GLOSARIO MEDICO www.es.wikipedia.org</p>

November 2016

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<p><u>Students should make a sincere effort to answer the following questions before starting the chapter;</u></p> <p>1. What is the structure and function of the Eukaryotic animal cell? <input type="checkbox"/></p> <p>2. What is the cell theory? <input type="checkbox"/></p> <p>3. What is the function of the nucleus? <input type="checkbox"/></p>	<p><u>At the end of the chapter, students should be able to:</u></p> <p>* Describe the functions of the cell membrane and the structures that enable it to perform those functions. <input type="checkbox"/></p> <p>* Describe the various mechanisms that cells use to transport substances across the cell membrane. <input type="checkbox"/></p> <p>* Describe the organelles of a typical eukaryotic cell and</p>	<p><u>During the coverage of the chapter, the following teaching strategies will be adapted to suit all different learning styles:</u></p> <p>* Attention grabber followed by a Do Now activity. The following terms are used for vocabulary enforcement; aero, ana, chondrion, chroma, cyto, endo, hemo, hyper, hypo, inter, interstitium, kinesis, meta, macro, micro, phagein, pinein, podon, pseudo, ptosis, reticulum, soma.</p> <p>The Do Now can be one of the following;</p> <ol style="list-style-type: none"> word search Criss-Cross Fallen phrase Cryptograms Hidden message <p>these can be downloaded from: www.puzzlemaker.discoveryeducation.com</p> <p>** Watching a DVD " Body Story I " for 15 minutes, followed by class discussion.</p> <p>DVDs are provided by The Discovery</p>	<p><u>At the end of the chapter, students will be assessed for knowledge. Assessment can be either directly or alternatively as follows:</u></p> <p>* Frequent quizzes / chapter 3</p> <p>The website; www.wps.aw.com/bc_martini_eap_4/ offers quizzes in 4 formats:</p> <ol style="list-style-type: none"> Multiple choice Matching Fill in the blanks Labeling <p>Students are encouraged to take quizzes online and e-mail the results to their teacher.</p> <p>* Writing scientific essays.</p> <p>Students will read the top 10 stories of the month in the field of health and medicine.</p> <p>Each student will choose one story, read it, write a one-page scientific</p>	<p><u>The following text books are used in the classroom; outside reading is highly recommended:</u></p> <ol style="list-style-type: none"> Essentials of Anatomy & Physiology. Martini and Bartholomew. Fourth Edition. Text book and Study Guide. 2007 Medical Terminology. Davi-Ellen Chabner. 4th Edition. Text book & Workbook. 2007 The school and public library; encyclopedias, and reference books. The Internet;

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<p>4. What is the significance of mitosis? <input type="checkbox"/></p> <p>5. What are the roots of the names of different organs in the human body? <input type="checkbox"/></p>	<p>indicate their functions. <input type="checkbox"/></p> <p>* Summarize the process of protein synthesis. <input type="checkbox"/></p> <p>* Define differentiation and explain its importance. <input type="checkbox"/></p> <p>* Analyze, spell, and pronounce medical terms that contain diagnostic & procedural suffixes. <input type="checkbox"/></p>	<p>Channel through their website; www.discovery.com</p> <p>*** Creating a chapter outline and a vocabulary list for chapter 3, page 56; <u>Cell Structure and Function.</u></p> <p>The outline should cover the followings key points:</p> <ol style="list-style-type: none"> 1. <u>Studying Cells</u> <ol style="list-style-type: none"> 1.a An overview of the cell anatomy 2. <u>The Cell Membrane</u> <ol style="list-style-type: none"> 2.a Membrane structure 2.b Membrane transport 3. <u>The Cytoplasm</u> <ol style="list-style-type: none"> 3.a The cytosol 3.b Organelles 4. <u>The Nucleus</u> <ol style="list-style-type: none"> 4.a Chromosome structure 4.b The genetic code 4.c Protein synthesis 5. <u>The Cell life Cycle</u> <ol style="list-style-type: none"> 5.a Interphase 	<p>essay about, and then present it to the class. Open discussion will follow.</p> <p>Students may use the following websites;</p> <ul style="list-style-type: none"> • www.time.com • www.sciam.com • www.sciencedaily.com <p>Students may also use the corresponding magazines;</p> <ol style="list-style-type: none"> 1. Time 2. Scientific American 3. Science Daily <p>* <u>Research papers & Projects:</u></p> <p>Students will conduct the following 2 projects;</p> <ol style="list-style-type: none"> 1. The Incredible Cell <input type="checkbox"/> 2. The Cell Action Park <input type="checkbox"/> 	<p><u>The Cell Project;</u> www.accessexcellence.org</p> <p>When the project is complete students will know what a cell is and where cells are found.</p> <p><u>The Cell Organelles;</u> www.accessexcellence.org</p> <p>This activity forces students to analyze the structure and function of various cell organelles</p> <p><u>The Cell;</u> www.accessexcellence.org</p> <p>This activity is designed to help students visualize plant and animal cells, understand the parts of a cell and their functions and distinguish plant cells from animal cells.</p> <p>www.getbodysmart.com</p> <p>www.aw-bc.com/aplace/</p>


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		<p>5.b Mitosis 5.c Cytokinesis 5.d Cell division and cancer</p> <p>6. <u>Cell Diversity and Differentiation</u></p> <p>**** Students will work in small groups of 3-4 students each. They will be engaged in answering the open-ended questions "<u>Level 2; Reviewing Concepts</u>" 29-37 page 87</p> <p>They will be also engaged in answering "<u>Level 3; Critical Thinking and Clinical Applications</u>" 38-39 page 87</p> <p>***** Field trips; <u>Franklin Science Museum</u> in Philadelphia, PA, <u>Liberty Science Center</u> in Jersey City, NJ, and <u>Bodies</u> in New York City, NY.</p> <p><i>In these trips, students will see 3-D models of the Human Body, will watch live surgery broadcasting from operating rooms all over the country through web conferencing, will dissect the human organs under the supervision of the museum specialists, will watch IMAX for</i></p>	<p>* <u>Labeling and Flashcards; chapter 3</u></p> <p>Using the following website; www.wps.aw.com/bc_martini_eap_4/</p> <p>This performance assessment will greatly inforce the new terms, their positions in the human body and their definitions</p> <p>* Written comprehensive chapter test, MCQs and open-ended questions</p> <p>ELLs present a report of the origen of the names of the human organs</p> <p>Vocabulary test</p>	<p>5. PowerPoint presentations;</p> <p><u>The Cell</u> www.science.pppst.com/cells.html</p> <p><u>Genetics</u> www.science.pppst.com/dna.html</p> <p>6. <u>Problem Solving and Critical Thinking;</u></p> <p>The Mystery Spot is an excellent site to enforce thinking and solving a health mystery.</p> <p>Working in pairs; solve the mystery; <u>YELLOW JACKIE</u></p> <p>www.accessexcellence.org/AE/mspot/</p>

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		<p><i>the Human body, and will have interactive games and puzzles for the different human body systems and organs.</i></p>	<p>Extra time when tested in English</p> <p>Bilingual dictionary</p>	<p>ELLs research the roots of the human organs names: EL CUERPO HUMANO www.monografias.com</p> <p>ANATOMIA HUMANA www.es.wikipedia.org</p>

December 2016

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<p><u>Students should make a sincere effort to answer the following questions before starting the chapter;</u></p> <p>1. What is the Tissue level of organization in the Human Body? <input type="checkbox"/></p> <p>2. What is the structure and function of epithelial tissue? <input type="checkbox"/></p> <p>3. What are the basic structure and role of the nervous tissue? <input type="checkbox"/></p>	<p><u>At the end of the chapter, students should be able to:</u></p> <p>* Identify the body's four major tissue types, and describe their role. <input type="checkbox"/></p> <p>* Describe the relationship between form and function for each epithelial tissue. <input type="checkbox"/></p> <p>* Compare the structures and functions of the various types of</p>	<p><u>During the coverage of the chapter, the following teaching strategies will be adapted to suit all different learning styles:</u></p> <p>* Attention grabber followed by a Do Now activity. The following terms are used for vocabulary enforcement; apo, cardium, chondros, dendron, desmos, glia, histos, holos, hyalos, lacus, meros, neuro, pleura, sistere, squama, vas.</p> <p>The Do Now can be one of the following;</p> <ol style="list-style-type: none"> word search Criss-Cross Fallen phrase Cryptograms Hidden message <p>these can be downloaded from: www.puzzlemaker.discoveryeducation.com</p> <p>** Watching a DVD "Body Story II" for 15 minutes, followed by class discussion.</p> <p>DVDs are provided by The Discovery Channel through their</p>	<p><u>At the end of the chapter, students will be assessed for knowledge. Assessment can be either directly or alternatively as follows:</u></p> <p>* Frequent quizzes / chapter 4</p> <p>The website; www.wps.aw.com/bc_martini_eap_4/ offers quizzes in 4 formats:</p> <ol style="list-style-type: none"> Multiple choice Matching Fill in the blanks Labeling <p>Students are encouraged to take quizzes online and e-mail the results to their teacher.</p> <p>* Writing scientific essays.</p> <p>Students will read the top 10 stories of the month in the field of health and medicine.</p> <p>Each student will choose one story, read it, write a one-page scientific</p>	<p><u>The following text books are used in the classroom; outside reading is highly recommended:</u></p> <ol style="list-style-type: none"> Essentials of Anatomy & Physiology. Martini and Bartholomew. Fourth Edition. Text book and Study Guide. 2007 Medical Terminology. Davi-Ellen Chabner. 4th Edition. Text book & Workbook. 2007 The school and public library; encyclopedias, and reference books. The Internet;

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<p>4. How does aging affect the tissues of the body? <input type="checkbox"/></p> <p>5. What are the prefixes and suffixes used in medical terminology? <input type="checkbox"/></p>	<p>connective tissue. <input type="checkbox"/></p> <p>* Explain how epithelial & connective tissues combine to form four types of membranes & specify the functions of each. <input type="checkbox"/></p> <p>* Describe the three types of muscular tissue, and the special structural features of each. <input type="checkbox"/></p> <p>* Analyze, spell, and</p>	<p>website; www.discovery.com</p> <p>*** Creating a chapter outline and a vocabulary list for chapter 4, page 88; <u>The Tissue Level of Organization.</u></p> <p>The outline should cover the followings key points:</p> <p>1. <u>Epithelial Tissue</u></p> <p>1.a Functions of epithelia 1.b Intercellular connections 1.c The epithelial surface 1.d the basement membrane 1.e Epithelial renewal and repair</p> <p>2. <u>Connective Tissue</u></p> <p>2.a Classifying connective tissue 2.b Connective tissue proper 2.c Fluid connective tissue 2.d Supporting connective tissue</p> <p>3. <u>Membranes</u></p> <p>3.a Mucous membranes 3.b Serous membranes 3.c The cutaneous membranes 3.d Synovial membranes</p> <p>4. <u>Muscle Tissue</u></p>	<p>essay about, and then present it to the class. Open discussion will follow.</p> <p>Students may use the following websites;</p> <ul style="list-style-type: none"> www.time.com www.sciam.com www.sciencedaily.com <p>Students may also use the corresponding magazines;</p> <ol style="list-style-type: none"> Time Scientific American Science Daily <p>* <u>Research papers & Projects</u></p> <ul style="list-style-type: none"> Virus Symposium <input type="checkbox"/> <p>* <u>Labeling and Flashcards; chapter 4</u></p>	<p><u>Simulation of a Laparoscopic Surgery Lab;</u> www.accessexcellence.org</p> <p>The simulation of laparoscopic surgery enables students to practice and to learn the technique for the very first time.</p> <p><u>Legal Aspects of Tissue Transplantation;</u> www.accessexcellence.org</p> <p>Using the role play format to discuss the bioethical issues involved with fetal tissue transplantation</p> <p>www.getbodysmart.com</p> <p>www.aw-bc.com/applace/</p> <p>5. PowerPoint presentations;</p> <p><u>The Human Body</u> www.science.pppst.com/humanbody.html</p>



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	<p>pronounce medical terms that contain prefixes. </p>	<p>4.a Skeletal muscle tissue 4.b Cardiac muscle tissue 4.c Smooth muscle tissue</p> <p>5. <u>Neural Tissue</u></p> <p>6. <u>Tissue Injuries and Repairs</u></p> <p>7. <u>Tissues and Aging</u> 7.a Aging and cancer incidence</p> <p>**** Students will work in small groups of 3-4 students each. They will be engaged in answering the open-ended questions "<u>Level 2; Reviewing Concepts</u>" 29-34, page 115</p> <p>They will be also engaged in answering "<u>Level 3; Critical Thinking and Clinical Applications</u>" 35-36, page 115</p> <p>***** Field trips; <u>Franklin Science Museum</u> in Philadelphia, PA, <u>Liberty Science Center</u> in Jersey City, NJ, and <u>Bodies</u> in New York City, NY.</p>	<p>Using the following website; www.wps.aw.com/bc_martini_eap_4/</p> <p>This performance assessment will greatly inforce the new terms, their positions in the human body and their definitions</p> <p>* Written comprehensive chapter test, MCQs and open-ended questions</p>	

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
		<p><i>In these trips, students will see 3-D models of the Human Body, will watch live surgery broadcasting from operating rooms all over the country through web conferencing, will dissect the human organs under the supervision of the museum specialists, will watch IMAX for the Human body, and will have interactive games and puzzles for the different human body systems and organs.</i></p>	<p>ELLs present a poster of the Human Body Tissue organization</p> <p>Vocabulary test</p> <p>Bilingual dictionary</p> <p>Extra time when tested in English</p>	<p>ELLs research the organization of Human Body : ORGANIZACION DEL CUERPO HUMANO www.saludmed.com</p> <p>ESTRUCTURA Y FUNCION DEL CUERPO www.scribd.com</p>

January 2017

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p><u>Students should make a sincere effort to answer the following questions before starting the chapter;</u></p> <p>1. What is the structure and function of the Integumentary System? <input type="checkbox"/></p> <p>2. What is the reason for individual differences in skin color? <input type="checkbox"/></p> <p>3. How does the integumentary system help in regulating the body temperature? <input type="checkbox"/></p>	<p><u>At the end of the chapter, students should be able to:</u></p> <p>* Describe the general function of the integumentary system. <input type="checkbox"/></p> <p>* Describe the main structural features of the epidermis and explain their functional significance. <input type="checkbox"/></p> <p>* Explain how the skin responds to injury and repairs itself. <input type="checkbox"/></p>	<p><u>During the coverage of the chapter, the following teaching strategies will be adapted to suit all different learning styles:</u></p> <p>* Attention grabber followed by a Do Now activity. The following terms are used for vocabulary enforcement; cornu, cutis, derma, epi, facere, germinare, keros, kynos, luna, melas, onyx, papilla.</p> <p>The Do Now can be one of the following;</p> <ol style="list-style-type: none"> word search Criss-Cross Fallen phrase Cryptograms Hidden message <p>these can be downloaded from: www.puzzlemaker.discoveryeducation.com</p> <p>** Watching a DVD "Body Atlas: Skin" and "Body Atlas: Defend and Repair" for 15 minutes each, followed by class discussion.</p> <p>DVDs are provided by The Discovery</p>	<p><u>At the end of the chapter, students will be assessed for knowledge. Assessment can be either directly or alternatively as follows:</u></p> <p>* Frequent quizzes / chapter 5</p> <p>The website; www.wps.aw.com/bc_martini_eap_4/ offers quizzes in 4 formats:</p> <ol style="list-style-type: none"> Multiple choice Matching Fill in the blanks Labeling <p>Students are encouraged to take quizzes online and e-mail the results to their teacher.</p> <p>* Writing scientific essays.</p> <p>Students will read the top 10 stories of the month in the field of health and medicine.</p> <p>Each student will choose one story, read it, write a one-page scientific</p>	<p><u>The following text books are used in the classroom; outside reading is highly recommended:</u></p> <ol style="list-style-type: none"> Essentials of Anatomy & Physiology. Martini and Bartholomew. Fourth Edition. Text book and Study Guide. 2007 Medical Terminology. Davi-Ellen Chabner. 4th Edition. Text book & Workbook. 2007 The school and public library; encyclopedias, and reference books. The Internet;




Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p>4. What are the functions of the skin's accessory structures? <input type="checkbox"/></p> <p>5. How do you understand a medical term that you are seeing for the first time? <input type="checkbox"/></p>	<p>* Discuss the effect of ultraviolet radiation on the skin, and the role played by melanocytes. <input type="checkbox"/></p> <p>* Describe the mechanisms that produce hair and that determine hair color and texture. <input type="checkbox"/></p> <p>* Summarize the effects of the aging process on the skin. <input type="checkbox"/></p>	<p>Channel through their website; www.discovery.com</p> <p>*** Creating a chapter outline and a vocabulary list for chapter 5, page 116; <u>The Integumentary System.</u></p> <p>The outline should cover the followings key points:</p> <p>1. <u>Integumentary Structure and Function</u></p> <p>1.a The epidermis 1.b The dermis 1.c The subcutaneous layer 1.d Accessory structures</p> <p>2. <u>Local Control of Homeostasis</u></p> <p>2.a Injury and repair of the skin</p> <p>3. <u>Aging and The Integumentary System</u></p> <p>4. <u>Integration with Other Systems</u></p> <p>**** Students will work in small groups of</p>	<p>essay about, and then present it to the class. Open discussion will follow.</p> <p>Students may use the following websites;</p> <ul style="list-style-type: none"> • www.time.com • www.sciam.com • www.sciencedaily.com <p>Students may also use the corresponding magazines;</p> <ol style="list-style-type: none"> 1. Time 2. Scientific American 3. Science Daily <p>* <u>Research papers & Projects;</u></p> <ul style="list-style-type: none"> • Genes, DNA and Mutations <input type="checkbox"/> <p>* <u>Case Studies;</u></p> <p>Using the following website;</p>	<p><u>High School Students Experience Feelings of Being Handicapped;</u> www.accessexcellence.org</p> <p>Students will be able to contrast past and present treatment of, and facilities for, the developmentally disabled</p> <p><u>Genetic Scenario and Toothpickase;</u> www.accessexcellence.org</p> <p>Soap opera scenarios to study genetic defects...toothpicks to explain enzymes!</p> <p>www.getbodysmart.com</p> <p>www.aw-bc.com/applace/</p> <p>5. PowerPoint presentations;</p> <p><u>Health</u> www.science.pppst.com/health</p>

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
	<p>* Identify medical specialists & describe their specialties. </p> <p>* Decipher medical terminology as written in case reports. </p>	<p>3-4 students each. They will be engaged in answering the open-ended questions "Level 2; Reviewing Concepts" 20-24, page 131</p> <p>They will be also engaged in answering "Level 3; Critical Thinking and Clinical Applications" 25-26, page 131</p> <p>***** Field trips; Franklin Science Museum in Philadelphia, PA, Liberty Science Center in Jersey City, NJ, and Bodies in New York City, NY.</p> <p><i>In these trips, students will see 3-D models of the Human Body, will watch live surgery broadcasting from operating rooms all over the country through web conferencing, will dissect the human organs under the supervision of the museum specialists, will watch IMAX for the Human body, and will have interactive games and puzzles for the different human body systems and organs.</i></p>	<p>www.wps.aw.com/bc_martini_eap_4/</p> <p>Students will study the case of;</p> <ul style="list-style-type: none"> • <u>Bob's Bad Habits</u> <p>* Written comprehensive chapter test, MCQs and open-ended questions</p> <p>ELLs present a graphic poster of the integumentary System</p> <p>Vocabulary test on terminologies</p> <p>Extra time when tested in English</p> <p>Bilingual dictionary</p>	<p>The Human Body</p> <p>www.science.pppst.com/humanbody</p> <p>ELLs research the structure and function of the integumentary system: SISTEMA INTEGUMENTARIO www.es.wikipedia.org</p> <p>SISTEMA INTEGUMENTARIO www.sienceu.fsu.edu</p>

February 2017

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p><u>Students should make a sincere effort to answer the following questions before starting the chapter;</u></p> <p>1. What is the structure and function of the Skeletal System? <input type="checkbox"/></p> <p>2. What are the main two divisions of the skeletal system? <input type="checkbox"/></p> <p>3. How many bones do we have in our bodies? <input type="checkbox"/></p>	<p><u>At the end of the chapter, students should be able to:</u></p> <p>* Compare the structures & functions of compact & spongy bones. <input type="checkbox"/></p> <p>* Describe the remodeling & repair of the skeleton, & discuss homeostatic mechanisms responsible for regulating mineral deposition & turnover. <input type="checkbox"/></p> <p>* Discuss bone growth</p>	<p><u>During the coverage of the chapter, the following teaching strategies will be adapted to suit all different learning styles:</u></p> <p>* Attention grabber followed by a Do Now activity. The following terms are used for vocabulary enforcement; acetabulum, amphi, arthros, blast, circum, clast, clavus, concha, corona, cranio, cribrum, dens, gennan, gomphosis, infra, lacrimae, lamella, malleolus, meniscus, osteon, planta, porosus, septum, stylos, supra, sutura, teres, trabecula, trochlea, vetere.</p> <p>The Do Now can be one of the following;</p> <ol style="list-style-type: none"> word search Criss-Cross Fallen phrase Cryptograms Hidden message <p>these can be downloaded from: www.puzzlemaker.discoveryeducation.com</p> <p>** Watching a DVD "Body Atlas:"</p>	<p><u>At the end of the chapter, students will be assessed for knowledge. Assessment can be either directly or alternatively as follows:</u></p> <p>* Frequent quizzes / chapter 6</p> <p>The website; www.wps.aw.com/bc_martini_eap_4/ offers quizzes in 4 formats:</p> <ol style="list-style-type: none"> Multiple choice Matching Fill in the blanks Labeling <p>Students are encouraged to take quizzes online and e-mail the results to their teacher.</p> <p>* Writing scientific essays.</p> <p>Students will read the top 10 stories of the month in the field of health and medicine.</p> <p>Each student will choose one story, read it, write a one-page scientific</p>	<p><u>The following text books are used in the classroom; outside reading is highly recommended:</u></p> <ol style="list-style-type: none"> Essentials of Anatomy & Physiology. Martini and Bartholomew. Fourth Edition. Text book and Study Guide. 2007 Step-By-Step Medical Coding. Carol J. Buck. Text book. 2007 The school and public library; encyclopedias, and reference books. The Internet; Bodies in Motion;







Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p>4. What is a joint, and what is the function of our joints? <input type="checkbox"/></p> <p>5. What is medical coding, and why is it vital to the medical profession? <input type="checkbox"/></p>	<p>and development, and account for variations in the internal structure of specific bones. <input type="checkbox"/></p> <p>* Distinguish among different types of joints & link structural features to joint functions. <input type="checkbox"/></p> <p>* Name the components and functions of the axial and appendicular skeletons. <input type="checkbox"/></p> <p>* Describe the dynamic movements of the skeleton and the structure of representative</p>	<p>Bones" and "The Ultimate Guide: The Human Body" for 15 minutes each, followed by class discussion.</p> <p>DVDs are provided by The Discovery Channel through their website; www.discovery.com</p> <p>*** Creating a chapter outline and a vocabulary list for chapter 6, page 134; The Skeletal System.</p> <p>The outline should cover the following key points:</p> <ol style="list-style-type: none"> 1. The Structure of Bones <ol style="list-style-type: none"> 1.a Macroscopic features of bone 1.b Microscopic features of bone 2. Bone Formation and Growth <ol style="list-style-type: none"> 2.a Intramembranous ossification 2.b Endochondral ossification 2.c Bone growth and body proportions 3. Bone Remodeling and Homeostasis <ol style="list-style-type: none"> 3.a the role of remodeling in support 3.b Homeostasis and mineral 	<p>essay about, and then present it to the class. Open discussion will follow.</p> <p>Students may use the following websites;</p> <ul style="list-style-type: none"> • www.time.com • www.sciam.com • www.sciencedaily.com <p>Students may also use the corresponding magazines;</p> <ol style="list-style-type: none"> 1. Time 2. Scientific American 3. Science Daily <p>* Research papers & Projects</p> <ul style="list-style-type: none"> • Debate in Genetics <input type="checkbox"/> <p>* Case Studies;</p> <p>Using the following website;</p>	<p>www.accessexcellence.org</p> <p>The "Bodies in Motion" project includes statistics, biomechanics, sports, growth and development, and kinematics, the study of how the human body moves in space.</p> <p>Disease Role Play; www.accessexcellence.org</p> <p>Students will develop an action plan in collaborative groups addressing a new disease</p> <p>www.getbodysmart.com</p> <p>www.aw-bc.com/aplace/</p> <p>5. PowerPoint presentations;</p> <p>The Skeleton www.science.pppst.com/skeletons.html</p>

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
	<p>articulations. </p> <p>* Discuss the functional relationships between the skeletal system and other body systems. </p> <p>* Identify the uses, developers, importance, and categories of medical coding. </p>	<p>storage</p> <p>3.c Injury and repair</p> <p>4. <u>Aging of The Skeletal System</u></p> <p>5. <u>An Overview of The Skeleton</u></p> <p>5.a Bone markings</p> <p>5.b Skeletal division</p> <p>6. <u>The Axial Division</u></p> <p>6.a The skull</p> <p>6.b The vertebral column and thoracic cage</p> <p>7. <u>The Appendicular Division</u></p> <p>7.a The pectoral girdle</p> <p>7.b The upper limb</p> <p>7.c The pelvic girdle</p> <p>7.d The lower limb</p> <p>8. <u>Articulations</u></p> <p>8.a the classification of joints</p> <p>8.b Synovial joints</p> <p>8.c representative articulations</p> <p>9. <u>Integration with other systems</u></p> <p>**** Students will work in small groups of 3-4 students each. They will be engaged in</p>	<p>www.wps.aw.com/bc_martini_eap_4/</p> <p>Students will the study the case of;</p> <ul style="list-style-type: none"> • <u>Sally's Shopping Trip</u> <p>* Written comprehensive chapter test, MCQs and open-ended questions</p>	

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
		<p>answering the open-ended questions "<u>Level 2; Reviewing Concepts</u>" 35-41, page 181.</p> <p>They will be also engaged in answering "<u>Level 3; Critical Thinking and Clinical Applications</u>" 42-46, page 181.</p> <p>***** Field trips; <u>Franklin Science Museum</u> in Philadelphia, PA, <u>Liberty Science Center</u> in Jersey City, NJ, and <u>Bodies</u> in New York City, NY.</p> <p><i>In these trips, students will see 3-D models of the Human Body, will watch live surgery broadcasting from operating rooms all over the country through web conferencing, will dissect the human organs under the supervision of the museum specialists, will watch IMAX for the Human body, and will have interactive games and puzzles for the different human body systems and organs.</i></p>	<p>ELLs present a report on the structure and function of the Skeletal System</p> <p>Vocabulary test</p> <p>Extra time when tested in English</p> <p>Bilingual dictionary allowed</p>	<p>ELLs research the system of the skeletal: EL ESQUELETO HUMANO www.es.wikipedia.org</p> <p>EL ESQUELETO HUMANO www.flashmavi.com</p> <p>EL SISTEMA ESQUELETICO www.saludmed.com</p>

March 2017

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p><u>Students should make a sincere effort to answer the following questions before starting the chapter;</u></p> <p>1. What is the structure and function of the Muscular System? <input type="checkbox"/></p> <p>2. What is the organization of muscle at the tissue level? <input type="checkbox"/></p> <p>3. What are the structural components of a sarcomere? <input type="checkbox"/></p>	<p><u>At the end of the chapter, students should be able to:</u></p> <p>* Explain the key steps involved in the contraction of a skeletal muscle fiber. <input type="checkbox"/></p> <p>* Describe the mechanisms by which muscle obtain and use energy to power contraction. <input type="checkbox"/></p> <p>* Relate the types of muscle fibers to muscular</p>	<p><u>During the coverage of the chapter, the following teaching strategies will be adapted to suit all different learning styles:</u></p> <p>* Attention grabber followed by a Do Now activity. The following terms are used for vocabulary enforcement; caput, hyper, kneme, lemma, meros, metron, mys, peri, platys, sarkos, tetanos, tonos, trope, trophy.</p> <p>The Do Now can be one of the following;</p> <ol style="list-style-type: none"> word search Criss-Cross Fallen phrase Cryptograms Hidden message <p>these can be downloaded from: www.puzzlemaker.discoveryeducation.com</p> <p>** Watching a DVD "Body Atlas: Muscle" and "The Human Body: Pushing The Limits" for 15 minutes each, followed by class discussion.</p>	<p><u>At the end of the chapter, students will be assessed for knowledge. Assessment can be either directly or alternatively as follows:</u></p> <p>* Frequent quizzes / chapter 7</p> <p>The website; www.wps.aw.com/bc_martini_eap_4/ offers quizzes in 4 formats:</p> <ol style="list-style-type: none"> Multiple choice Matching Fill in the blanks Labeling <p>Students are encouraged to take quizzes online and e-mail the results to their teacher.</p> <p>* Writing scientific essays.</p> <p>Students will read the top 10 stories of the month in the field of health and medicine.</p> <p>Each student will choose one story, read it, write a one-page scientific</p>	<p><u>The following text books are used in the classroom; outside reading is highly recommended:</u></p> <ol style="list-style-type: none"> Essentials of Anatomy & Physiology. Martini and Bartholomew. Fourth Edition. Text book and Study Guide. 2007 Step-By-Step Medical Coding. Carol J. Buck. Text book. 2007 The school and public library; encyclopedias, and reference books. The Internet;










Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p>4. What are the different types of muscle contraction? </p>	<p>performance. </p> <p>* <u>Distinguish</u> between aerobic and anaerobic endurance, and explain their implications for muscular performance. </p>	<p>DVDs are provided by The Discovery Channel through their website; www.discovery.com</p>	<p>essay about, and then present it to the class. Open discussion will follow.</p>	<p><u>Contraction in Action;</u> www.accessexcellence.org</p>
<p>5. What do the terms CPT and ICD-9-CM stand for? </p>	<p>* <u>Compare and contrast</u> skeletal, cardiac, and smooth muscles in terms of structure and function. </p> <p>* <u>Identify</u> the main axial muscles of the body, along with their</p>	<p>*** Creating a chapter outline and a vocabulary list for chapter 7, page 184; <u>The Muscular System</u></p>	<p>Students may use the following websites;</p> <ul style="list-style-type: none"> • www.time.com • www.sciam.com • www.sciencedaily.com 	<p>This activity is designed to help the students visualize not only the structure of a sarcomere, but the actual physical action, and the rapidity, of its contraction and relaxation</p>
		<p>The outline should cover the followings key points:</p>	<p>Students may also use the corresponding magazines;</p>	<p><u>Jumpy Dolls;</u> www.accessexcellence.org</p>
		<p>1. <u>Functions of the skeletal system</u></p>	<ol style="list-style-type: none"> 1. Time 2. Scientific American 3. Science Daily 	<p>Jumpy Doll construction is a culminating activity in a unit on the muscular system. Students are challenged to design and construct a jointed figure that moves in a motion something like jumping jacks when a string is pulled.</p>
		<p>2. <u>The anatomy of skeletal muscles</u></p>		<p><u>Medical Consultation Role Play;</u> www.accessexcellence.org</p>
		<ol style="list-style-type: none"> 2.a Gross anatomy 2.b Microanatomy 		<p>This activity is designed to function as an authentic assessment after the study of the human muscular system.</p>
		<p>3. <u>The control of muscle fiber contraction</u></p>	<p>* <u>Research papers & Projects;</u></p>	<p>www.getbodysmart.com</p>
		<ol style="list-style-type: none"> 3.a The neuromuscular junction 3.b The contraction 	<ul style="list-style-type: none"> • Better Bodies  	<p>www.aw-bc.com/applace/</p>
		<p>4. <u>Muscle mechanics</u></p>	<p>* <u>Case Studies;</u></p>	
		<ol style="list-style-type: none"> 4.a The frequency of muscle fiber stimulation 4.b The number of muscle fibers involved 	<p>Using the following website;</p>	
		<ol style="list-style-type: none"> 4.c Isotonic and isometric contractions 		




Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
	<p>actions; and identify the main appendicular muscles of the body, along with their actions. <input type="checkbox"/></p> <p>* Identify the uses of CPT and ICD-9-CM. <input type="checkbox"/></p>	<p>4.d Muscle elongation</p> <p>5. <u>The energetics of muscular activity</u></p> <p>5.a ATP and CP reserves</p> <p>5.b ATP generation</p> <p>5.c Muscle fatigue</p> <p>5.d The recovery period</p> <p>6. <u>Muscle performance</u></p> <p>6.a Types of skeletal muscle fibres</p> <p>6.b Physical conditioning</p> <p>7. <u>Cardiac and smooth muscle fibres</u></p> <p>7.a Cardiac muscle</p> <p>7.b Smooth muscle</p> <p>8. <u>Anatomy of the muscular system</u></p> <p>8.a Origins, insertions, and actions</p> <p>8.b Names of skeletal muscles</p> <p>8.c The axial muscles</p> <p>8.d The appendicular muscles</p> <p>9. <u>Aging and the muscular system</u></p> <p>10. <u>Integration with other systems</u></p> <p>**** Students will work in small groups of</p>	<p>www.wps.aw.com/bc_martini_eap_4/</p> <p>Students will study the case of;</p> <ul style="list-style-type: none"> • <u>Christine's Workout</u> • <u>Marvin's Muscle Fatigue</u> • <u>Hal's Athletic Adventure</u> <p>* Written comprehensive chapter test, MCQs and open-ended questions</p>	<p>5. PowerPoint presentations;</p> <p><u>The Human Body</u> www.science.pppst.com/humanbody.html</p>

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
		<p>3-4 students each. They will be engaged in answering the open-ended questions "<u>Level 2; Reviewing Concepts</u>" 24-29, page 233.</p> <p>They will be also engaged in answering "<u>Level 3; Critical Thinking and Clinical Applications</u>" 30-32, page 233.</p> <p>***** Field trips; <u>Franklin Science Museum</u> in Philadelphia, PA, <u>Liberty Science Center</u> in Jersey City, NJ, and <u>Bodies</u> in New York City, NY.</p> <p><i>In these trips, students will see 3-D models of the Human Body, will watch live surgery broadcasting from operating rooms all over the country through web conferencing, will dissect the human organs under the supervision of the museum specialists, will watch IMAX for the Human body, and will have interactive games and puzzles for the different human body systems and organs.</i></p>	<p>ELLs present a poster of the Muscular System</p> <p>Vocabulary test</p> <p>Extra time when tested in English</p> <p>Bilingual dictionary allowed</p>	<p>ELLs research the structure and function of the Muscular System: SISTEMA MUSCULAR www.es.wikipedia.org</p> <p>EL SISTEMA MUSCULAR DEL CUERPO HUMANO www.flashmavi.com</p>

April 2017

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p><u>Students should make a sincere effort to answer the following questions before starting the chapter;</u></p> <p>1. What is the structure and function of the Nervous System? <input type="checkbox"/></p> <p>2. What are the two major anatomical divisions of the nervous system, and what are their functions? <input type="checkbox"/></p> <p>3. What is the mechanism of nerve impulse transmission at the</p>	<p><u>At the end of the chapter, students should be able to:</u></p> <p>* Distinguish between neurons and neuroglia on the basis of their structure and function. <input type="checkbox"/></p> <p>* Discuss the events that generate action potentials in the membranes of nerve cells. <input type="checkbox"/></p> <p>* Compare and contrast the functions and structures of the sympathetic and parasympathetic divisions</p>	<p><u>During the coverage of the chapter, the following teaching strategies will be adapted to suit all different learning styles:</u></p> <p>* Attention grabber followed by a Do Now activity. The following terms are used for vocabulary enforcement; arachne, astro, ataxia, axon, cauda, cephalo, chiasm, choroid, colliculus, commissura, ganglion, limbus, mamilla, mater, meninx, meso, neuro, nigra, ologo, phagia, pia, plexus, saltare, vagus.</p> <p>The Do Now can be one of the following;</p> <ol style="list-style-type: none"> word search Criss-Cross Fallen phrase Cryptograms Hidden message <p>these can be downloaded from: www.puzzlemaker.discoveryeducation.com</p> <p>** Watching a DVD "Body Atlas: The Brain" for 15 minutes, followed by class discussion.</p>	<p><u>At the end of the chapter, students will be assessed for knowledge. Assessment can be either directly or alternatively as follows:</u></p> <p>* Frequent quizzes / chapter 8</p> <p>The website; www.wps.aw.com/bc_martini_eap_4/ offers quizzes in 4 formats:</p> <ol style="list-style-type: none"> Multiple choice Matching Fill in the blanks Labeling <p>Students are encouraged to take quizzes online and e-mail the results to their teacher.</p> <p>* Writing scientific essays.</p> <p>Students will read the top 10 stories of the month in the field of health and medicine.</p> <p>Each student will choose one story, read it, write a one-page scientific</p>	<p><u>The following text books are used in the classroom; outside reading is highly recommended:</u></p> <ol style="list-style-type: none"> Essentials of Anatomy & Physiology. Martini and Bartholomew. Fourth Edition. Text book and Study Guide. 2007 Step-By-Step Medical Coding. Carol J. Buck. Text book. 2007 The school and public library; encyclopedias, and reference books. The Internet; Better Body Books;

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p>synapse? </p> <p>4. What are the three meningeal layers that surround the central nervous system? </p> <p>5. How do you identify & determine the medical codes for anesthesia, surgery, & radiation? </p>	<p>of the autonomic nervous system. </p> <p>* Discuss the structure and function of the spinal cord. </p> <p>* Name the major regions of the brain and describe their functions. </p> <p>* Locate the motor, sensory, and association areas of the cerebral cortex and discuss their functions. </p>	<p>DVDs are provided by The Discovery Channel through their website; www.discovery.com</p> <p>*** Creating a chapter outline and a vocabulary list for chapter 8, page 236; <u>The Nervous system.</u></p> <p>The outline should cover the followings key points:</p> <p>1. <u>The Nervous System</u></p> <p>2. <u>Cellular Organizations in Neural Tissue</u></p> <p>2.a Neurons</p> <p>2.b Neuroglia</p> <p>2.c Anatomical organization of neurons</p> <p>3. <u>Neuron Function</u></p> <p>3.a The membrane potential</p> <p>3.b Propagation of an action potential</p> <p>4. <u>Neural Communication</u></p> <p>4.a Structure of a synapse</p> <p>4.b Synaptic function and</p>	<p>essay about, and then present it to the class. Open discussion will follow.</p> <p>Students may use the following websites;</p> <ul style="list-style-type: none"> • www.time.com • www.sciam.com • www.sciencedaily.com <p>Students may also use the corresponding magazines;</p> <ol style="list-style-type: none"> 1. Time 2. Scientific American 3. Science Daily <p>* <u>Research papers & Projects;</u></p> <ul style="list-style-type: none"> • Drug Abuse and Fetal Alcohol Syndrome  <p>* <u>Case Studies;</u></p> <p>Using the following website;</p>	<p>www.accessexcellence.org</p> <p>Students will work in groups of 2-3 people to prepare a book about the human body that is suitable for a 3rd, 4th, or 5th grade student.</p> <p><u>Decision Making and Bioethics;</u></p> <p>www.accessexcellence.org</p> <p>Decision Making in a High-Tech World: Is Genetic Engineering a Threat to Future Generations?</p> <p>www.getbodysmart.com</p> <p>www.aw-bc.com/aplace/</p> <p>* <u>Research papers & Projects;</u></p> <ul style="list-style-type: none"> • Drug Abuse and Fetal Alcohol Syndrome  <p>5. PowerPoint presentations;</p> <p><u>The Brain</u></p> <p>www.science.pppst.com/brain.html</p>


Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
	<p>* Identify the cranial nerves and relate each pair of cranial nerves to its principal functions. </p> <p>* Relate the distribution pattern of spinal nerves to the regions they innervate. </p> <p>* Demonstrate ability to code for anesthesia, radiation & surgery services. </p>	<p>neurotransmitters 4.c Neuronal pools</p> <p>5. <u>The Central Nervous System</u> 5.a The meninges 5.b The spinal cord 5.c The brain 5.d The ventricles</p> <p>6. <u>The Peripheral Nervous System</u> 6.a The cranial nerves 6.b The spinal nerves 6.c Nerve plexuses 6.d Reflexes 6.e Sensory and motor pathways</p> <p>7. <u>The Autonomic Nervous System</u> 7.a The sympathetic division 7.b The parasympathetic division 7.c The relationships between the two divisions.</p> <p>8. <u>Aging and The Nervous System</u></p> <p>9. <u>Integration with Other Systems</u></p> <p>**** Students will work in small groups of 3-4 students each. They will be engaged in answering the open-ended questions "Level</p>	<p>www.wps.aw.com/bc_martini_eap_4/</p> <p>Students will study the case of;</p> <ul style="list-style-type: none"> • <u>Jim and The Family Pet</u> <p>* Written comprehensive chapter test, MCQs and open-ended questions</p>	

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
		<p>2; Reviewing Concepts" 35-40, page 289.</p> <p>They will be also engaged in answering "Level 3; Critical Thinking and Clinical Applications" 41-45, page 289.</p> <p>***** Field trips; Franklin Science Museum in Philadelphia, PA, Liberty Science Center in Jersey City, NJ, and Bodies in New York City, NY.</p> <p><i>In these trips, students will see 3-D models of the Human Body, will watch live surgery broadcasting from operating rooms all over the country through web conferencing, will dissect the human organs under the supervision of the museum specialists, will watch IMAX for the Human body, and will have interactive games and puzzles for the different human body systems and organs.</i></p>	<p>ELLs present a poster of the Nervous System</p> <p>Vocabulary test</p> <p>Extra time when tested in English</p> <p>Bilingual dictionary allowed</p>	<p>ELLs research the Nervous System: EL CEREBRO Y EL SISTEMA NERVIOSO www.kidshealth.org</p> <p>EL SISTEMA NERVIOSO www.es.wikipedia.org</p> <p>EL SISTEMA NERVIOSO www.proyectosalonhogar.com</p>

May 2017

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p><u>Students should make a sincere effort to answer the following questions before starting the chapter;</u></p> <p>1. What is the structure and function of the General & Special Senses? <input type="checkbox"/></p> <p>2. What are the parts of the eye? <input type="checkbox"/></p> <p>3. What are the parts of the ear and their roles in the process of hearing? <input type="checkbox"/></p>	<p><u>At the end of the chapter, students should be able to:</u></p> <p>* Identify the receptors for the general senses and describe how they function. <input type="checkbox"/></p> <p>* Discuss the receptors & processes involved in the sense of taste, vision, equilibrium, smell and hearing. <input type="checkbox"/></p> <p>* Explain how we are able to see objects and distinguish colors. <input type="checkbox"/></p>	<p><u>During the coverage of the chapter, the following teaching strategies will be adapted to suit all different learning styles:</u></p> <p>* Attention grabber followed by a Do Now activity. The following terms are used for vocabulary enforcement; akousis, baro, circa, circum, cochlea, dies, emmetro, incus, iris, labyrinthos, lacrima, lithos, macula, malleus, myein, noceo, olfacere, oto, presbys, skleros, stapes, tectum, tympanon, vallum, vitreus.</p> <p>The Do Now can be one of the following;</p> <ol style="list-style-type: none"> word search Criss-Cross Fallen phrase Cryptograms Hidden message <p>these can be downloaded from: www.puzzlemaker.discoveryeducation.com</p> <p>** Watching a DVD "Body Atlas: Taste and Smell" and "Mystery of The Senses:</p>	<p><u>At the end of the chapter, students will be assessed for knowledge. Assessment can be either directly or alternatively as follows:</u></p> <p>* Frequent quizzes / chapter 9</p> <p>The website; www.wps.aw.com/bc_martini_eap_4/ offers quizzes in 4 formats:</p> <ol style="list-style-type: none"> Multiple choice Matching Fill in the blanks Labeling <p>Students are encouraged to take quizzes online and e-mail the results to their teacher.</p> <p>* Writing scientific essays.</p> <p>Students will read the top 10 stories of the month in the field of health and medicine.</p> <p>Each student will choose one story, read it, write a one-page scientific</p>	<p><u>The following text books are used in the classroom; outside reading is highly recommended:</u></p> <ol style="list-style-type: none"> Essentials of Anatomy & Physiology. Martini and Bartholomew. Fourth Edition. Text book and Study Guide. 2007 Step-By-Step Medical Coding. Carol J. Buck. Text book. 2007 The school and public library; encyclopedias, and reference books. The Internet;







Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p>4. What are the general senses? <input type="checkbox"/></p> <p>5. How do you identify & determine the medical coding for procedures & diagnoses of the musculoskeletal, respiratory & cardiovascular systems <input type="checkbox"/></p>	<p>* Discuss how the central nervous system processes information related to vision. <input type="checkbox"/></p> <p>* Discuss the receptors and processes involved in the sense of equilibrium. <input type="checkbox"/></p> <p>* Describe the effects of aging on general and special senses. <input type="checkbox"/></p>	<p><u>Vision</u>", and "<u>Mystery of The Senses: Hearing</u>" for 15 minutes each, followed by class discussion.</p> <p>DVDs are provided by The Discovery Channel through their website; www.discovery.com</p> <p>*** Creating a chapter outline and a vocabulary list for chapter 9, page 292; <u>The General and Special Senses.</u></p> <p>The outline should cover the followings key points:</p> <ol style="list-style-type: none"> 1. <u>The General Senses</u> <ol style="list-style-type: none"> 1.a Pain 1.b Temperature 1.c Touch, pressure, and position 1.d Chemical detection 2. <u>The Special Senses</u> 3. <u>Smell</u> <ol style="list-style-type: none"> 3.a The olfactory pathways 4. <u>Taste</u> <ol style="list-style-type: none"> 4.a The taste pathways 	<p>essay about, and then present it to the class. Open discussion will follow.</p> <p>Students may use the following websites;</p> <ul style="list-style-type: none"> • www.time.com • www.sciam.com • www.sciencedaily.com <p>Students may also use the corresponding magazines;</p> <ol style="list-style-type: none"> 1. Time 2. Scientific American 3. Science Daily <p>* <u>Research papers & Projects;</u></p> <ul style="list-style-type: none"> • Genetic Diseases <input type="checkbox"/> <p>* <u>Case Studies;</u></p> <p>Using the following website;</p>	<p><u>Remember to Stop and Smell The Roses;</u> www.accessexcellence.org</p> <p>Students explain in anatomical terms why memory and olfaction are so closely related</p> <p><u>Bioethics, Debates in Human Genetics;</u> www.accessexcellence.org</p> <p>Effective use of debates, mock trials and parody in the classroom</p> <p>www.getbodysmart.com</p> <p>www.aw-bc.com/applace/</p> <p>5. PowerPoint presentations;</p> <p><u>Special Senses</u> www.science.pppst.com/fivesenses.html</p>

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
	<p>* Demonstrate ability to code for musculoskeletal, respiratory, and cardiovascular systems services. </p>	<p>5. Vision</p> <p>5.a The accessory structures of the eye</p> <p>5.b The eye</p> <p>5.c Visual physiology</p> <p>5.d The visual pathway</p> <p>6. Equilibrium and Hearing</p> <p>6.a The anatomy of the ear</p> <p>6.b Equilibrium</p> <p>6.c Hearing</p> <p>7. Aging and The Senses</p> <p>**** Students will work in small groups of 3-4 students each. They will be engaged in answering the open-ended questions "Level 2; Reviewing Concepts" 33-38, page 329</p> <p>They will be also engaged in answering "Level 3; Critical Thinking and Clinical Applications" 39-41, page 329.</p> <p>***** Field trips; Franklin Science Museum in Philadelphia, PA, Liberty</p>	<p>www.wps.aw.com/bc_martini_eap_4/</p> <p>Students will study the case of;</p> <ul style="list-style-type: none"> • Jackie and Fletcher <p>* Written comprehensive chapter test, MCQs and open-ended questions</p>	


Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
		<p>Science Center in Jersey City, NJ, and Bodies in New York City, NY.</p> <p><i>In these trips, students will see 3-D models of the Human Body, will watch live surgery broadcasting from operating rooms all over the country through web conferencing, will dissect the human organs under the supervision of the museum specialists, will watch IMAX for the Human body, and will have interactive games and puzzles for the different human body systems and organs.</i></p>	<p>ELLs present a report on the structure and function of the special senses</p> <p>Vocabulary test</p> <p>Extra time when tested in English</p> <p>Bilingual dictionary allow</p>	<p>ELLs research the structure and function of the Special Senses:ORGANOS DE LOS SENTIDOS www.es.wikipedia.org</p> <p>LOS SENTIDOS www.salonhogar.com</p>

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Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p><u>Students should make a sincere effort to answer the following questions before starting the chapter;</u></p> <p>1. What is the structure and function of the Endocrine System? <input type="checkbox"/></p> <p>2. What is the definition of a hormone? <input type="checkbox"/></p> <p>3. How are endocrine organs controlled? <input type="checkbox"/></p>	<p><u>At the end of the chapter, students should be able to:</u></p> <p>* Compare the similarities between the endocrine and nervous systems. <input type="checkbox"/></p> <p>* Compare the major chemical classes of hormones and explain the general mechanisms of hormonal action. <input type="checkbox"/></p> <p>* Discuss the location, hormones, & functions of the following</p>	<p><u>During the coverage of the chapter, the following teaching strategies will be adapted to suit all different learning styles:</u></p> <p>* Attention grabber followed by a Do Now activity. The following terms are used for vocabulary enforcement; andros, angeion, corpus, diabetes, diurein, erythros, infundibulum, insipidus, krinein, mellitum, natrium, ouresis, oxy, para, poiesis, pro, renes, synergia, teinein, thyreos, tokos, tropos.</p> <p>The Do Now can be one of the following;</p> <ol style="list-style-type: none"> word search Criss-Cross Fallen phrase Cryptograms Hidden message <p>these can be downloaded from: www.puzzlemaker.discoveryeducation.com</p> <p>** Watching a DVD "Body Atlas; Glands and Hormones" for 15 minutes, followed by class discussion.</p>	<p><u>At the end of the chapter, students will be assessed for knowledge. Assessment can be either directly or alternatively as follows:</u></p> <p>* Frequent quizzes / chapter 10</p> <p>The website; www.wps.aw.com/bc_martini_eap_4/ offers quizzes in 4 formats:</p> <ol style="list-style-type: none"> Multiple choice Matching Fill in the blanks Labeling <p>Students are encouraged to take quizzes online and e-mail the results to their teacher.</p> <p>* Writing scientific essays.</p> <p>Students will read the top 10 stories of the month in the field of health and medicine.</p> <p>Each student will choose one story, read it, write a one-page scientific</p>	<p><u>The following text books are used in the classroom; outside reading is highly recommended:</u></p> <ol style="list-style-type: none"> Essentials of Anatomy & Physiology. Martini and Bartholomew. Fourth Edition. Text book and Study Guide. 2007 Step-By-Step Medical Coding. Carol J. Buck. Text book. 2007 The school and public library; encyclopedias, and reference books. The Internet; Student Cancer Journals;

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
<p>4. What is the general mechanism of hormonal action? </p> <p>5. How do you identify & determine the medical coding for procedures & diagnoses of the urinary, reproductive and endocrine systems? </p>	<p>endocrine glands and tissues; pituitary, thyroid, parathyroids, adrenal, pineal, pancreas, thymus, testes, and ovaries. </p> <p>* Explain how hormones interact to produce coordinated physiological responses. </p> <p>* Identify the hormones that are especially important to normal growth and discuss their roles. </p>	<p>DVDs are provided by The Discovery Channel through their website; www.discovery.com</p> <p>*** Creating a chapter outline and a vocabulary list for chapter 10, page 330; <u>The Endocrine System</u></p> <p>The outline should cover the followings key points:</p> <p>1. <u>An Overview of The Endocrine System</u></p> <p>1.a The structure of hormones</p> <p>1.b The mechanisms of hormonal action</p> <p>1.c The secretion and distribution of hormones</p> <p>1.d The control of endocrine activity</p> <p>2. <u>The Pituitary Gland</u></p> <p>2.a The adenohypophysis</p> <p>2.b The neurohypophysis</p> <p>3. <u>The Thyroid Gland</u></p> <p>3.a Thyroid follicles and thyroid hormones</p>	<p>essay about, and then present it to the class. Open discussion will follow.</p> <p>Students may use the following websites;</p> <ul style="list-style-type: none"> • www.time.com • www.sciam.com • www.sciencedaily.com <p>Students may also use the corresponding magazines;</p> <ol style="list-style-type: none"> 1. Time 2. Scientific American 3. Science Daily <p>* <u>Research papers & Projects;</u></p> <p>Sexually Transmitted Diseases </p> <p>* <u>Case Studies;</u></p>	<p>www.accessexcellence.org</p> <p>How do concepts learned in the study of mitosis, biochemistry, cell biology, and anatomy & physiology help when making life or death decisions?</p> <p><u>Bioethics: Debates in Human Genetics;</u> www.accessexcellence.org</p> <p>Effective use of debates, mock trials and parody in the classroom</p> <p>www.getbodysmart.com</p> <p>www.aw-bc.com/applace/</p> <p>5. PowerPoint presentations;</p> <p><u>The Human Body</u> www.science.pppst.com/humanbody.html</p>

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
	<p>* <u>Explain</u> how the endocrine system responds to stress. <input type="checkbox"/></p> <p>* <u>Discuss</u> the results of abnormal hormone production or abnormal responses. <input type="checkbox"/></p> <p>* <u>Discuss</u> the functional relationships between the endocrine system and other body systems. <input type="checkbox"/></p>	<p>3.b Calcitonin</p> <p>4. <u>The Parathyroid Glands</u></p> <p>5. <u>The Adrenal Glands</u> 5.a The adrenal cortex 5.b the adrenal medulla</p> <p>6. <u>The Pineal Body</u></p> <p>7. <u>The Pancreas</u> 7.a Regulation of blood glucose concentration</p> <p>8. <u>The Endocrine Tissues of Other Organs</u> 8.a The intestines 8.b The Kidneys 8.c The heart 8.d The thymus 8.e The gonads</p> <p>9. <u>Patterns of Hormonal interaction</u> 9.a Hormones and growth 9.b Hormones and stress 9.c Hormones and behavior 9.d Hormones and aging</p> <p>10. <u>Integration with Other Systems</u></p>	<p>Using the following website; www.wps.aw.com/bc_martini_eap_4/</p> <p>Students will study the case of;</p> <ul style="list-style-type: none"> • <u>Nicholas' Mysterious Suntan</u> <p>* Written comprehensive chapter test, MCQs and open-ended questions</p>	

Essential Questions	Content /Concepts	Skills	Assessment	Suggested Activities/Resources
	<p>* Demonstrate ability to use modifiers. </p>	<p>**** Students will work in small groups of 3-4 students each. They will be engaged in answering the open-ended questions "Level 2; Reviewing Concepts" 24-27, page 361.</p> <p>They will be also engaged in answering "Level 3; Critical Thinking and Clinical Applications" 28-29, page 361.</p> <p>***** Field trips; Franklin Science Museum in Philadelphia, PA, Liberty Science Center in Jersey City, NJ, and Bodies in New York City, NY.</p> <p><i>In these trips, students will see 3-D models of the Human Body, will watch live surgery broadcasting from operating rooms all over the country through web conferencing, will dissect the human organs under the supervision of the museum specialists, will watch IMAX for the Human body, and will have interactive games and puzzles for the different human body systems and organs.</i></p>	<p>ELLs present a report of the structure and function of the Endocrine System</p> <p>Vocabulary test</p> <p>Extra time when tested in English</p> <p>Bilingual dictionary</p>	<p>ELLs research the function and structure of the Endocrine System: FUNCION HUMORAL/ENDOCRINA www.saludmed.com</p> <p>FUNCION ENDOCRINO www.monografias.com</p>

