

**Human Biology**  
**BSC 1020C CRN 12170**  
**Fall 2013**

**INSTRUCTOR:** Dr. Leesa L. Sward

**OFFICE:** Room 249

**OFFICE HOURS:** Class meeting weeks: Friday: 7:00a-8:30a; 11:30am-1:00pm; 3:45p-5:45p; Non class meeting weeks M, T,W, R, F: virtual hours 8:30am- 9:30 am; other times by appointment

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**CLASS MEETS:** 1:00p-3:45p; Fridays 8/30; 9/6; 9/20; 10/11; 10/18; 11/8; 11/15; 12/6; 12/13; Room 221; Winter Park Campus; Credits: 4

**REQUIRED TEXT:** The Merck Manual Home Health Handbook, 2009; ISBN: 978-0-911910-30-8. Online version available; <http://www.merck.com/mmhe/index.html>; Also an I phone App. Available.

**Blackboard 9.1:** This is a Blackboard hybrid class, the website can be accessed by logging on to <http://learn.valenciacollege.edu> You will use your Atlas account ID and password to access the course syllabus, assignments and handouts etc.

**PRE AND COREQUISITES:** None

**WITHDRAWAL DEADLINE:** The deadline for withdrawing from this class with a grade of W is Friday, Nov. 1, 2013. Per Valencia Policy 4-07 (Academic Progress, Course Attendance and Grades, and Withdrawals), a student who withdraws from class before the established deadline for a particular term will receive a grade of “W.” A student is not permitted to withdraw after the withdrawal deadline. A faculty member MAY withdraw a student up to the beginning of the final exam period for violation of the class attendance policy. A student who is withdrawn by faculty for violation of the class attendance policy will receive a grade of “W.” Any student who withdraws or is withdrawn from a class during a third or subsequent attempt in the same course will be assigned a grade of “F.” For a complete policy and procedure overview on Valencia Policy 4-07 please go to: <http://valenciacc.edu/generalcounsel/policydetail.cfm?RecordID=75>.

**COURSE DESCRIPTION:**

**BSC 1020C**

A general education course for students not majoring in biology that is fully integrated with a laboratory that emphasizes active learning strategies. Includes study of scientific method, study of human biology with an emphasis on major organ systems and processes, human development, genetics, diseases, biochemical processes and their relation to the human body, and biological concepts underlying major societal and bioethical issues.

**LEARNING OUTCOMES FOR COMBINED LECTURE/LAB BIOLOGICAL SCIENCES:**

The following learning outcomes describe what students should know and/or be able to do with their new knowledge at the end of this course.

Learning Outcomes	Assessments/Activities	Valencia’s Core Competencies
Students will apply their knowledge of scientific method and human biology in making decisions regarding societal and bioethical issues	Medical Scenarios—rubric Classroom Assessment Techniques	Think, Value, Communicate, Act
Students will explain the relationship between the human body and biochemical processes	Medical Scenarios--rubric Lab Activities Concept mapping/flow chart Pre-lab activities	Think, Communicate, Act

	Exams	
Students will describe the biological basis of health and disease	Medical Scenarios—rubric Concept mapping/flow chart Exams	Think, Communicate, Act
Students will demonstrate their knowledge of genetics, inheritance and human body systems	Medical Scenarios—rubric Lab Activities—Manikens Pre-lab Activities Exams	Think, Communicate, Act
Students will demonstrate their knowledge of scientific method, biochemistry, and cell structure and function	Medical Scenarios--rubric Lab Activities Concept mapping/flow charts Exams	Think, Communicate, Act

### COMPETENCIES:

Valencia faculty defined four interrelated competencies (Value, Think, Communicate, Act) that prepare students to succeed in the world community. These competencies are outlined in the College catalog. This course will further develop your mastery of these core competencies through classroom lecture and discussion, group work, and class activities.

**EVACUATION:** Please make note of evacuation route from your classroom in case of emergency. Interpret all audible alarms as valid and act accordingly.

### GRADING SCALE:

The final grade will be determined as a percentage of total possible points earned. Letter grades will be assigned according to the following scale:

A=90-100%    C=70-79%    F=Below 60%  
B=80-89%    D=60-69%

**GRADE COMPOSITION:** (approximate point values—subject to change)

1. Scenarios (10 x 26 points = 260 pts.)
2. Quizzes (7 x 20 to 30 pts.)
3. Homework/ Labs ( 385 pts.)
4. Exams (mid-term 70 pts; final written 70 pts; final practical 50 pts)

### GRADING POLICIES:

If a student completes the final exams, the grade earned for the course will be recorded with the registrar. If a student decides to withdraw prior to completion of the final exam, it is the student's responsibility to complete official procedures through the registrar's office.

1. All homework assignments must be completed before each class.
2. No late or missed quizzes/exams accepted
3. There are no make up labs.
4. No Late work accepted.

### ACADEMIC HONESTY:

1. Each student is expected to be in compliance with the college catalog and student handbook.
2. Any student who cheats on any assignment will receive a zero and may be subject to withdrawal from the class.

### ATTENDANCE:

1. Students are expected to attend all classes
2. Missed in class assignments cannot be made up.

## **HANDOUTS:**

1. Some supplemental material will be handed out during class. All other materials will be posted on Blackboard.
2. If you are absent from the class when handouts are distributed, make arrangements to get them from another student or access them from Blackboard

## **CLASS ETIQUETTE/STUDENT CODE OF CONDUCT** (See posting in classroom)

1. All cell phones must be silent during class.
2. Be respectful of others' right to learn.
3. Respect your classmates' right to have opinions that differ from your own.

## **SPECIAL NEEDS:**

1. Students with disabilities who qualify for academic accommodations must provide a letter from the office for **Students with Disabilities (OSD)** and discuss specific needs with the professor, preferably during the first two weeks of class. The office for Students with Disabilities determines accommodations based on appropriate documentation of disabilities (Winter Park Campus, room 203; (407-582-6887).
2. Please follow the college policy relating to children on campus and make arrangements for childcare outside of classrooms or labs.
3. Valencia College is interested in making sure all our students have a rewarding and successful college experience. To that purpose, Valencia students can get immediate help with issues dealing with stress, anxiety, depression, adjustment difficulties, substance abuse, time management as well as relationship problems dealing with school, home or work. **BayCare Behavioral Health Student Assistance Program (SAP)** services are free to all Valencia students and available 24 hours a day by calling (800) 878-5470. Free face-to-face counseling is also available.

## **EXAMS:**

All exams (mid-term and written final) will be administered in the Valencia College testing centers. Make sure to check testing center days and hours of operation before you plan to take your exam. You will need to bring your Valencia ID to be allowed to take any exam. You must take each exam during the assigned time period. Plan ahead, the dates of all exams are in the syllabus. If you fail to take your exams you will receive a zero for the exam. No make ups for missed exams.

You must show up for the final exam at the assigned time or you will receive a zero for the exam and that grade will be averaged into your cumulative average for the course.

## **Blackboard 9.1:**

This is our college online tool for accessing and managing our class communication and assignments. Once you have logged on to Blackboard with your Atlas user name and password you can access our class. When you click on our class you will be in the content area. The content area contains our Labs, Quizzes, Study Aids, and Medical Scenarios folders.

### **Labs:**

Some of the labs have a pre-lab section (discussion questions) that should be completed before you come to class. The remainder of the lab is to be completed in class and then handed in at the end of class. Labs will be graded for accuracy and completeness.

### **Medical Scenarios:**

The Medical Scenario write-ups are to be submitted online under the "assignment" tab. **Compose your write-up offline and then copy your write-up and paste it in the submission box of the assignment.** I will use the "Final Assessment Rubric" to grade your scenario. Your scenarios are to be in paragraph form with in-text citation. Each section of the scoring rubric should be represented as a separate paragraph in your final write up. To complete the scenarios I recommend you use the Merck Manual Home Edition. It can be found online at

<http://www.merck.com/mmhe/index.html>

### **Tools:**

We will use the "In Class Mail" function to communicate with the instructor or other students in this class

## **QUIZZES:**

Remember, no late quizzes accepted and no makeup quizzes. You are expected to work independently when completing each quiz.

You must have a good internet connection when taking a quiz...if your signal fails you will lose access to the quiz and only the answers you saved will be graded. Also, do not spend a lot of time looking up answers the system could time you out for lack of activity. Save each question as you complete it. You can always go back and change your answer if time permits. The quizzes are timed and must be completed before the deadline. Do not start a quiz with only a few minutes left before the deadline...the system may close you out when the timed deadline occurs. Quizzes will cover all reading material, PowerPoint slides, diagrams, vocabulary worksheets, and any other posted study materials for each week. You have two attempts to take each quiz.

After you take your quiz:

If you have questions concerning any quiz questions, or need clarification on any missed quiz items I will go over them during our next class.

Blackboard help desk recommendations for taking online quizzes and exams:

The stability of the internet can sometimes be sporadic; therefore there is always a possibility of encountering some type of error while taking an online exam. If this happens to you please contact your instructor immediately via email and inform them of your situation (be sure to include the time, course ID, and assessment title in your email). However, below are some precautions that you can take when taking your online exam:

- Make sure there is only one Blackboard session open at a time. In other words, do not have one window open while you are taking an exam and another open for course navigation. The multiple logins may cause an error.
- If possible please have only the browser window where you are taking the exam open. Closing all others unrelated browser windows will give you the best chance of completing your assessment without errors.
- While you are taking your exam you should also close any other programs or applications that are not essential for completing your exam (e.g. RealPlayer, MusicMatch, Adobe Photoshop, QuickTime, Microsoft Outlook, MSN Messenger etc.)
- If you have a firewall and or anti-virus software installed on your system, you may want to disable it functions while you are taking the assessment only.
- Please do not press the **“Backspace”** (or the **“Enter”**) **button on your keyboard or click the “Back” button on your browser during your assessment.**

**If you experience any issues, please contact Blackboard help for assistance by visiting the [Valencia College support center](#), or by phone at: (407) 582-5600.**



**TENTATIVE COURSE SCHEDULE  
HUMAN BIOLOGY BSC 1020C**

<p>Aug. 30</p>	<p><i>In class:</i> Go over Syllabus and class expectations; Go over scoring rubric for Medical Scenarios <b>Study Aids:</b> Exploring Scientific Measurement worksheet <b>Lab Activity:</b> Exploring Measurement and Scientific Reasoning</p>	<p>Readings correspond to Merck Manual Home Health Handbook 2009</p>
<p>Aug. 31-Sept 5</p>	<p><i>Online/out of class work</i> <b>Review Study Aids:</b> reality check, weekly schedule; Barsch Cell Structure and function concept map; DNA technology worksheet Review CD Mitosis and Meiosis (tutorial) Review CD Molecular Biology (tutorial) <b>Vocabulary</b> Fundamentals of Genetics vocabulary; Cells and Tissue vocabulary worksheet <b>Review power points:</b> Genes and Medical Genetics Cell Structure and Function Tissues, organization and regulation  <b>Online Medical Scenario Assignment:</b> Genetics karyotyping for genetic disorders. Due 9/6  <b>Homework:</b> Genetic Exercises (Principles of Inheritance, Incomplete Dominance, Codominance, and Sex-Linked traits). Due 9/6 <b>Homework:</b> Cells and Tissue Lab Activity (Discussion questions due 9/6)</p>	<p>Ch. 3 Making the most of Healthcare p.17-28; Appendix II Medical tests p. 2116-23  Ch. 4 Prevention p. 28-45; Medical terms p. xLi +xLii Units of Measure Appendix I p. 2113-15  Ch. 1 Human body p.2-8 Ch. 2 Genetics p. 8-16 Ch. 263 Chromosomal and Genetic abnormalities p. 1726-30</p>
<p>Sept.6</p>	<p><i>In class:</i> Collect homework <b>Lab Activity:</b> Cell Structure and Function/Tissues/organs/organ systems. CD: Systems of the Human Body (computer lab)</p>	<p>Quiz #1 due by Sept. 7 online in Blackboard under quizzes and exams (covers all Aug. 31- Sept. 6 material)</p>
<p>Sept. 7-19</p>	<p><i>Online/out of class work:</i> <b>Study Aids:</b> Directional Terminology worksheet; Basic Bones vocabulary worksheet; Review Anatomy in Clay Body Systems video in study Aids folder: Directional Terms, Skeletal, and Muscular system  <b>Review PowerPoint:</b> Skeletal system Muscular System <b>Online Assignment:</b> Medical Scenario Skeletal due 9/13 <b>Homework:</b> Basic Bones and Skeletal system Activity; Due 9/20 <b>Homework:</b> Muscular System Activity questions; due 9/20</p>	<p>Ch. 90 Symptoms/diagnosis of Muscle disorders p. 538-44; Ch. 91 Osteoporosis p. 544-46; Ch. 96 Joint Disorders p. 559-572 Ch. 103 Muscles, Bursa, and Tendon Disorders p. 615-21 Ch. 301 Fractures p. 1952-64; Ch.302 Sports Injuries p. 1965-76</p>

Sept. 20	<p>In class: Collect homework: Skeletal/Muscular system; Assign Manikens; Review Skeletal system; <b>Lab:</b> Muscular System Activity</p>	Quiz #2 due by Sept 21 (covers all Sept 7-20 material)
Sept 21- Oct.10	<p>Online/out of class work: <b>Study Aids:</b> Nervous system vocabulary worksheet;  Review Anatomy in Clay Body system video: Nervous system  <b>Review PowerPoint:</b> Nervous system Senses  <b>Online assignment:</b> Medical Scenario skeletal/muscular system (1) due 9/27 <b>Online assignment:</b> Medical Scenario Nervous system due 10/11  <b>Homework:</b> Nervous System Lab activity (pre-lab) due 10/11</p>	<p>Ch. 104 Biology of the Nervous system p. 623-29; Ch. 105 Diagnosis of Brain, Spinal cord, and nerve disorders p. 629-37 Ch. 107 Headaches p. 648-57; Ch. 113 Seizure disorders p.709-18; Ch. 114 Stroke p. 718-33  Ch. 115 Head injuries p. 733-41; Ch. 121 Spinal cord disorders p. 793-806; Ch. 122 Low back pain p. 806-15; Ch. 185 Biology of the skin p. 1276-78 Ch. 211 Biology of the ears, nose, and throat p. 1375-78 Ch. 218 Biology of the eyes p. 1412-15</p>
Oct. 11	<p>In Class Collect homework:  <b>Lab:</b> Nervous system Activity; brain, spinal cord, Vertebrae and muscle innervation;</p>	<p>Quiz #3 due by Oct.11 (covers all material Sept 21-Oct. 11) <b>Mid-Term Exam due 10/16 Valencia College Testing Center</b></p>
Oct 12- Oct 17	<p>Online/Out of class assignments <b>Study Aids:</b> Cardiovascular system worksheet;  Review Anatomy in Clay Body systems video: Cardiovascular system  <b>Review PowerPoint:</b> Cardiovascular system Blood  <b>Mid-Term Exam:</b> due 10/16 (Covers all material through Nervous system)  <b>Online assignment:</b> Medical Scenario Cardiovascular system Due 10/18 <b>Homework:</b> Cardiovascular system Activity (pre-lab) due 10/18</p>	<p>Ch. 52 Biology of the heart and blood vessels p.316-20; Ch. 53 Symptoms and diagnosis of heart and blood vessel disorders p.320-33; Ch. 54 High blood pressure p.333-43 Ch. 64 Atherosclerosis p. 396-401; Ch. 65 Coronary Artery disease p. 401-18 Ch. 153 Biology of Blood p. 1022-23; Ch. 154 Symptoms and diagnosis of blood disorders p. 1023-26; Ch. 155 Blood transfusion p. 1026-31; Ch. 156 Anemia p. 1031-40;</p>

Oct. 18	<p>In Class: Collect homework <b>Lab:</b> Cardiovascular system Activity: building veins, arteries; heart</p>	<p>Quiz #4 due by Oct. 19 (covers all material Oct.12-18)</p>
Oct 19- Nov 7	<p>Online/out of class work <b>Study Aids:</b> Respiratory system vocabulary worksheet; Digestive system vocabulary worksheet; Chemistry of Life Vocabulary worksheet;</p> <p>Review Anatomy in Clay Body systems video: Respiratory system Digestive system</p> <p><b>Review PowerPoint:</b> Respiratory system Chemistry of Life Digestion and Nutrition</p> <p><b>Online Assignment:</b> Respiratory system Scenario due 10/25</p> <p><b>Homework:</b> Respiratory system Activity (pre-lab) due 11/8 <b>Homework:</b> Digestive system Activity (pre-lab) due 11/8</p> <p><b>Online Assignment:</b> Digestive system scenario due 11/8</p>	<p>Ch. 70 Biology of Lungs and airways p. 444-48 Ch. 71 Symptoms and diagnosis of lung disorders p. 448-59 Ch. 73 Bronchitis p. 461-63 Ch. 74 Pneumonia p. 463-72 Ch. 76 Asthma p. 473-80 Ch. 272 Cystic fibrosis p. 1788-92 Ch. 88 Lung Cancer p. 528-33 Ch. 202 Biology of the Mouth p. 1343-46 Ch. 17 Biology of the digestive system p. 110-14 Ch. 32 Biology of the liver and gall bladder p. 210-12 Ch. 18 Symptoms and diagnosis of digestive disorders p. 114-32 Ch. 20 Peptic disorders p. 137-45 Ch. 36 Hepatitis p. 227-32 Ch. 132 Overview of nutrition p. 902-13 Ch. 140 Obesity and the Metabolic syndrome p. 951-61 Ch. 141 Disorders of cholesterol p. 961-69</p>
Nov 8	<p>In Class: Collect Homework <b>Lab:</b> Respiratory system Activity <b>Lab:</b> Digestive system Activity</p>	<p>Quiz #5 due by Nov. 9 (covers all material Oct. 19-Nov. 8)</p>
Nov 9- Nov14	<p>Online/out of class work <b>Study Aids:</b> Urinary system vocabulary worksheet; Endocrine system vocabulary worksheet; Review Anatomy in Clay Body systems video: Urinary system Endocrine system</p> <p><b>Review PowerPoint:</b> Urinary system Endocrine system</p> <p><b>Online Assignment:</b> Urinary system scenario due 11/15</p> <p><b>Homework:</b> Urinary System Activity (pre-lab) due 11/15 <b>Homework:</b> Endocrine system Activity (pre-lab) due 11/15</p>	<p>Ch. 40 Biology of the kidneys and urinary tract p. 250-53 Ch. 41 Symptoms and diagnosis of kidney and urinary tract p. 253-60 Ch. 49 UTI's p. 302-08 Ch. 145 Biology of the Endocrine system p. 979-83 Ch. 147 Thyroid gland disorders p. 990-99 Ch. 149 Diabetes mellitus p. 1005-14</p>



Nov 15	<p>In Class: Collect homework</p> <p><b>Lab:</b> Urinary system Activity <b>Lab:</b> Endocrine system Activity</p>	<p>Quiz #6 due Nov. 16 (covers all material Nov. 9-15)</p>
Nov16- Dec 5	<p>Online/out of class work</p> <p><b>Study Aids:</b> Reproductive system vocabulary worksheet; Lymphatic and Immune system vocabulary worksheet; Infectious Disease and Cancer vocabulary worksheet;</p> <p>Review Anatomy in Clay Body systems video: Lymphatic system</p> <p><b>Review PowerPoint:</b> Reproductive system Lymphatic system Infectious disease and Cancer</p> <p><b>Online Assignment:</b> Endocrine system scenario due 11/22 <b>Online Assignment:</b> Reproductive system scenario due 12/6</p> <p><b>Homework:</b> Reproductive system Activity (pre-lab) due 12/6 <b>Homework:</b> Lymphatic system Activity (pre-lab) due 12/6</p>	<p>Ch. 231 Male reproductive system p. 1465-68 Ch. 233 Prostate disorders p. 1474-82 Ch. 235 Biology of Female reproductive sys. p. 1491-96 Ch. 239 Menstrual disorders and abnormal vaginal bleeding p. 1521-29 Ch. 167 Biology of the Immune System p. 1095-1104 Ch. 69 Lymphatic Disorders p. 440-43 Ch.168 Immunodeficiency Disorders p. 1104-11 Ch.169 Allergic Reactions p.1112-24 Ch.172 Biology of Infectious Disease p. 1138-44 Ch.173 Immunizations p.1144-51 Ch.174 Bacterial Infections p. 1151-85 Ch.175 Bacteremia, Sepsis, and Septic shock p.1185-88 Ch.176 Antibiotics p. 1188-94 Ch.177 Tuberculosis p.1194-1200 Ch.180 Parasitic Infections p. 1206-29 Ch.181 Fungal Infections p.1229- 36 Ch.182 Viral Infections p. 1236-54 Ch.183 Human Immunodeficiency Virus Infections p. 1254-64 Ch.184 Sexually Transmitted Diseases p. 1264-74 Ch.164 Overview of Cancer p. 1075-79 Ch.165 Symptoms and Diagnosis of Cancer p. 1079-86 Ch.166 Prevention and Treatment of Cancer p. 1086-94</p>

Dec 6	<p>In Class: Collect homework</p> <p><b>Lab:</b> Reproductive system Activity <b>Lab:</b> Lymphatic system Activity</p> <p>Review for final</p>	<p>Quiz #7 Due Dec. 7 (covers all material Nov. 15- Dec. 7)</p>
Dec 7- Dec 12	<p>Online/out of class work</p> <p>Final exam online in a Valencia College Testing Center due 12/13</p>	<p>Final Exam due 12/13 (covers all material after nervous system)</p>
Dec 13	<p>Final practical exam 1:00pm – 3:30pm in classroom</p> <p>Clean up manikens;</p> <p>Final exam online due 12/13 by 6pm in a Valencia College Testing Center</p>	

\* Reading assignments should be completed prior to the date of the class in which they appear on the course schedule.

**DISCLAIMER:**

The course schedule is subject to change.