West Valley College  
Biology 48 - Human Physiology  
Spring/ 2018  

Instructor: Christine Peters-Stanton  
Office: SM 55G  
Section: Bio 48 : 31061; 31062  
Office Hrs: M 10:45am – 12:45pm, W 10:45 – 11:45am  
Lecture: TTh 7:45- 9:10 (SM36)  
Lab: TTh 9:20 – 12:30; 12:50 – 4:00 (SM52)  
Phone: 741-2626 (Please leave a message)  
Email: christine.peters@westvalley.edu  

Tentative Lecture Schedule:  

<table>
<thead>
<tr>
<th>Wk.</th>
<th>Dates</th>
<th>#</th>
<th>Topics</th>
<th>Reading Assignment</th>
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<tr>
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<td>1/30</td>
<td>1</td>
<td>Intro / Homeostasis / Chemistry</td>
<td>1:1, 1:2, 6: pgs. 138 - 142</td>
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<tr>
<td></td>
<td>2/1</td>
<td>2</td>
<td>Organic Chemistry</td>
<td>2:1 – 2:3</td>
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<tr>
<td>2</td>
<td>2/6</td>
<td>3</td>
<td>Membrane Structure /Transport</td>
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<td>2/8</td>
<td>4</td>
<td>Membrane Transport / Energy &amp; Enzymes</td>
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<td>3</td>
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<td>Enzymes / Cellular Respiration</td>
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<td>Cellular Respiration / Metabolism</td>
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<td>Metabolism</td>
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<td>2/22</td>
<td>8</td>
<td>Muscle Physiology</td>
<td>12:1 – 12:5</td>
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<td>5</td>
<td>2/27*</td>
<td>9</td>
<td>Muscle Physiology</td>
<td>12:1 – 12:5</td>
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<tr>
<td></td>
<td>3/1</td>
<td>10</td>
<td>Muscle Physiology / Membrane</td>
<td>12:1 – 12:5; 6:4 – 6:5</td>
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<td>6</td>
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<td>11</td>
<td>Action Potential</td>
<td>6:4, 7:1, 7:2</td>
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<td>12</td>
<td>Action Potential / Synapse</td>
<td>7:1, 7:2, 7:3</td>
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<td>3/22</td>
<td>16</td>
<td>Neurotransmitter / Somatic Nervous Sys</td>
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<td>3/26 – 4/1</td>
<td>Spring Break</td>
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<tr>
<td>9</td>
<td>4/3*</td>
<td>17</td>
<td>Somatic/ Autonomic Nervous System</td>
<td>8: 9:1,9:2, 9:3</td>
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<td>4/5</td>
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<td>Hematoma / Hemostasis</td>
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<td>10</td>
<td>4/10</td>
<td>19</td>
<td>Cardiovascular Physiology</td>
<td>12.6, 13:3 - 8</td>
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<tr>
<td></td>
<td>4/12</td>
<td>20</td>
<td>Cardiovascular Physiology</td>
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<tr>
<td>11</td>
<td>4/17</td>
<td>21</td>
<td>Cardiovascular Physiology</td>
<td>14:1 - 6</td>
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<tr>
<td></td>
<td>4/19</td>
<td>22</td>
<td>Cardiovascular / Respiratory Physiology</td>
<td>13 &amp; 14</td>
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<tr>
<td>12</td>
<td>4/24</td>
<td>23</td>
<td>Respiratory Physiology</td>
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<td></td>
<td>4/26*</td>
<td>24</td>
<td>Respiratory Physiology (last day to drop)</td>
<td>16: 1 - 9</td>
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<tr>
<td>13</td>
<td>5/1</td>
<td>25</td>
<td>Respiratory / Renal Physiology</td>
<td>16: 1 - 9</td>
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<td></td>
<td>5/3</td>
<td>26</td>
<td>Renal Physiology</td>
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<td>14</td>
<td>5/8</td>
<td>27</td>
<td>Renal Physiology</td>
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<td>5/10</td>
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<td>5/15</td>
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<td></td>
<td>5/17</td>
<td>30</td>
<td>Endocrine System</td>
<td>11: 4 - 7</td>
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</table>
| 16  | 5/24** | Thurs. | Final Lecture Exam | Morning lab sec 31061: 9:40am – 12:40pm  
|     |       |    |                                             | Afternoon lab sec 31062: 12:50- 3:50pm  |
**Note:** ⭐⭐ Lecture Schedule is tentative and subject to change as the course progresses.

### Laboratory Schedule:

<table>
<thead>
<tr>
<th>Wk</th>
<th>Dates</th>
<th>#</th>
<th>Exercises/Topics</th>
<th>Text Reference</th>
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<tr>
<td>1</td>
<td>1/30</td>
<td>1</td>
<td>Orientation / Homeostasis / Statistics</td>
<td>Chapter 1</td>
</tr>
<tr>
<td></td>
<td>2/1</td>
<td>2</td>
<td>Data Analysis / Metrics (Microscope)</td>
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<tr>
<td>2</td>
<td>2/6</td>
<td>3</td>
<td>Organic Chemistry</td>
<td>Chapter 2</td>
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<td></td>
<td>2/8</td>
<td>4</td>
<td>Bioenergetics, Molecular Movement</td>
<td>4: 3</td>
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<tr>
<td>3</td>
<td>2/13</td>
<td>5</td>
<td>Enzymes Kinetics ⋆ (Due 2/27)</td>
<td>4: 1 - 2</td>
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<td></td>
<td>2/15</td>
<td>6</td>
<td>Cell Respiration (TCA/Krebs Cycle)</td>
<td>Chapter 5</td>
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<tr>
<td>4</td>
<td>2/20</td>
<td>7</td>
<td>Nutrition / Fitness Lab – Pot - Luck</td>
<td>Chapter 2</td>
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<tr>
<td></td>
<td>2/22</td>
<td></td>
<td>Review – Chemistry, Molecular movement, Enzymes, Respiration</td>
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<tr>
<td>5</td>
<td>2/27</td>
<td></td>
<td>Exam I (Wks 1 – 4: Lecs 1-7, Labs 1-6)</td>
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<td></td>
<td>3/1</td>
<td>8</td>
<td>Bio-instrumentation</td>
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<td>6</td>
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<td>Muscle Physiology (Human)</td>
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<td>3/8</td>
<td>10</td>
<td>Muscle Physiology (Frog) ⋆ (Due 3/22)</td>
<td>Chapter 12</td>
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<tr>
<td>7</td>
<td>3/13</td>
<td>13</td>
<td>Neurophysiology – Visual and Auditory Senses</td>
<td>10: 1, 4 - 8</td>
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<tr>
<td></td>
<td>3/15</td>
<td>11</td>
<td>Neurophysiology – Reflexes</td>
<td>10.4, 12.5</td>
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<tr>
<td>8</td>
<td>3/20</td>
<td>12</td>
<td>Neurophysiology – Action Potential ⋆(Due 4/3)</td>
<td>7:1 - 4</td>
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<td></td>
<td>3/22</td>
<td></td>
<td>Review – Muscle Physiology, Neurophysiology</td>
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<td></td>
<td>3/26 – 4/1</td>
<td></td>
<td>Spring Break</td>
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<tr>
<td>9</td>
<td>4/3</td>
<td></td>
<td>Exam II (Weeks 4-8; Lecs 7-16, Labs 9 – 13)</td>
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<tr>
<td></td>
<td>4/5</td>
<td>16</td>
<td>Cardiovascular Physiology: Electrocardiogram ⋆ 13:5, 13:7</td>
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<td>(Due 4/24)</td>
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<td>10</td>
<td>4/10</td>
<td>14 &amp; 15</td>
<td>Hematology I</td>
<td>13:2</td>
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<td>4/12</td>
<td>14 &amp;15</td>
<td>Hematology II</td>
<td>13:2</td>
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<td>11</td>
<td>4/17</td>
<td>17a &amp;b</td>
<td>Cardiovascular Physiology: Vascular / Blood Pressure</td>
<td>13:6, 14:3</td>
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<td>4/19</td>
<td>18</td>
<td>Cardiovascular Physiology: Pharmacology ⋆</td>
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<td>(Due 4/26)</td>
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<td>12</td>
<td>4/24</td>
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<td>Review – Blood, Cardiovascular Physiology</td>
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<td></td>
<td>4/26</td>
<td></td>
<td>Exam III (Weeks 8-11; Lecs 16-22, Labs 14-18) (last day to drop)</td>
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<tr>
<td>13</td>
<td>5/1</td>
<td>19</td>
<td>Respiratory Physiology</td>
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<td></td>
<td>5/3</td>
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<td>Oral Presentations</td>
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<td>14</td>
<td>5/8</td>
<td></td>
<td>Oral Presentations</td>
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<td></td>
<td>5/10</td>
<td>20a &amp;b</td>
<td>Renal Physiology: Urinalysis ⋆ (20b only: Due 5/24)</td>
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<td>15</td>
<td>5/15</td>
<td>21</td>
<td>Endocrine Physiology: Glucose Tolerance Test 19:3 - 4</td>
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<td></td>
<td>5/17</td>
<td></td>
<td>Final Review – Respiratory, Renal, &amp; Endocrine</td>
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<tr>
<td>16</td>
<td>5/24 (Thurs)</td>
<td></td>
<td>FINAL EXAM sec 31061 (9:40am – 12:40pm) &amp; sec 31062 (12:50 – 3:50pm) (Cumulative: Weeks 11-15; Lec 21-30, Labs 19-21)</td>
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Note: ⭐⭐ Anyone with moderate to severe cardiovascular disease, asthma, or any compromising condition must inform the instructor.

### Important Dates:

- Last day to ADD: Feb. 11
- President’s Holiday: Feb. 16-19
- Last Day to DROP without a W: Feb. 11
- Cesar Chavez Observance: Mar. 30
- Last day to DROP with a W: April 26
- Spring Break: Mar. 26 – April 1

Spring 2018 - C. Peters-Stanton 2 Biology 48 – Human Physiology
Welcome to Human Physiology! The following information describes what you can expect from Human Physiology (Bio48) this semester. I will outline what you can expect from this course, from me as your instructor, and more importantly what is expected from you as a successful student. Please read through the following information very carefully. It should function as your first reference whenever you have questions regarding the course.

**General Course Information:** Human physiology is an exciting and dynamic field, requiring you to utilize much of what you have learned in biology, anatomy and chemistry. In order to understand and discover the amazing workings within the human body you will bring together the knowledge and understanding of a variety of these disciplines. Over the next 16 weeks we will cover a tremendous amount of information, laying down the foundational science of body function necessary to prepare you for a variety of health related fields. Emphasis will be placed on learning and understanding normal physiological function. Pure memorization has no place in physiology, in order for the information to be useful you need to be able to apply the concepts. My goal is not to teach you everything, although it may seem so. It is to give you the physiological tools of knowledge, understanding, comprehension, critical thinking and problem solving so that you will be confident and capable of synthesizing your own conclusions when presented with novel situations. We (both you and me) will have succeeded if you can apply what you have learned far beyond the reach this classroom.

Unfortunately in order to achieve this level of understanding and to do well in this course you must put forth a tremendous amount of time and effort. Just like learning to play an instrument or a sport, practice and repetition is the key. There is a lot to learn and it will be difficult, but the knowledge you will gain is worth the effort. Emphasis will be placed on the physiological principles and mechanisms of normal body function. As your instructor I am here to facilitate your learning by presenting the material and by assisting you in your understanding. I will do what I can to help; however, it is difficult for me to access your level of comprehension so it is your responsibility to seek help when you need it and to put forth the necessary effort.

Biology 48 is a five units, semester lecture and laboratory course. It is designed to satisfy the requirements for degrees in Nursing, Physical Therapy, Occupational Therapy, Nutritional Science, Kinesiology, Pharmacy, Human Performance, Dental Hygiene, and other related fields. It is acceptable for credit by the University of California and the California State Universities (caution: if you plan to transfer it is your responsibility to confirm with the department / institution to which you wish to transfer that this course meets their requirements, they have the final say).

**Prerequisites:** Completion of a college anatomy course (i.e. Bio 47) and college chemistry course (with a grade of C or better). Students are expected to read and write at a college level and know enough mathematics to use elementary algebra, graphs, and charts to solve problems.

Note: If you have a learning or physical need that will require special accommodations in this class you will need to notify me in writing of your accommodation needs. West Valley College makes reasonable accommodations for persons with documented disabilities. College materials will be available in alternate formats (Braille, audio, electronic format, or large print) upon request. Please contact the Disability and Educational Support Program (DESP) at 408-741-5085 for assistance.

**Course Expectations:** This class will include 3 hrs of lecture and 6 hrs of lab weekly. The fundamentals of physiology will be introduced through the lectures and laboratory experiments and activities. The laboratory portion of the class consists of the examination, experimentation, and study using your own bodies and experimental animals (frogs). In addition to the over 9 hours in class per week, plan on spending at least an additional 20 hours or more per week studying
(“practicing”) your new knowledge. The amount of time you dedicate to your learning process will directly affect your level of success in this course. It is thus important that you schedule and prioritize your time effectively. Remember this is a UC and Cal State transferable course and the rigor of the course is reflected as such. Students are expected to attend and participate in ALL lectures and lab classes. Any student absent from 4 or more class sessions (10%) of the class (lab &/or lecture) may be dropped from the course by the instructor. Students are encouraged to remain active participants in both lectures and laboratory classes. Class involvement will not only make the course more interesting, but will also facilitate student understanding, learning and retention. All students are expected to arrive to class on time. You should be prepared for both lecture and lab. If you miss a lecture it is up to you to get the notes from someone in class. It is not appropriate to simply ask the instructor to email the notes to you. It is highly recommended to exchange contact information with someone in the class so you can exchange class information if you miss lecture or lab.

**Preparation for lecture means:**
1. You have reviewed and feel comfortable with the previous lecture’s material and have reviewed the study questions at the end of the lecture outline.
2. You have downloaded, from the course website, the lecture outline for the day.

**Preparation for lab means:**
1. You have studied the previous lab material and feel comfortable with the information
2. You have read and reviewed the material for the day’s lab in your lab manual.

*If you arrive late to class please sit in the back or side of the room so as not to disrupt the class (your peers or instructor). DO NOT WALK across the front of the classroom please!!!*

**Email:** I have found that the easiest method of getting in contact with me is through email. If you have questions or concerns please email at christine.peters@westvalley.edu. I try to respond within 48 hours, unless it is over the weekend or a holiday in which case it may take longer. If your email requires a lot of explanation I may ask you to see me after class or office hours instead of writing a lengthy email response.

**Lecture Format:** Lectures will be used to present, clarify, and expand on information which is presented in your book and laboratory manual. Although we will follow a typical lecture format, **class participation and involvement is encouraged.** If, during lecture, you have a question raise your hand and I will try to answer when appropriate. Otherwise please do not talk during lecture – it is disruptive and disrespectful to me and your fellow students. You do not need to bring your text to class, however, it will be to your benefit to have it available. You are required to know all of the information presented in the class lectures (not all material presented in the text).

**Lecture Outlines:** Lecture outlines will be available on the course home page [http://instruct.westvalley.edu/peters/](http://instruct.westvalley.edu/peters/) prior to the lecture. It is the student’s responsibility to download and print this material prior to the lecture. The outlines will be available in two formats 1. Microsoft word; documents and 2. pdf format. The Microsoft version will have diagrams, pictures, text and study questions from the lecture while the pdf format will only have the lecture text and study questions. Lecture outlines are optional but can be used to help organize your lecture notes. Used well they can be very beneficial but should not be a replacement for attending lecture. In addition lecture handouts also contain practice exam questions (study questions) which you should answer in order to assess your level of understanding for the relevant material – it is likely you will see some of the practice questions again on exams. Generally you will not need to bring your textbook to lecture, however it is strongly recommended, as it would be to your benefit to have it available.

If you miss a lecture it is up to you to get the notes from someone in class. *It is not appropriate to simply ask the instructor to email the notes to you.* It is highly recommended to exchange contact information with someone in class so you can exchange class information if you miss lecture or lab.
Note: The instructor may make changes to the syllabus during the semester. It is the student's responsibility to stay informed of these changes. Students may contact the instructor during office hours and before/after class, time permitting. Students may also wish to have a study partner whom they can contact if they miss class.

* Lecture outlines will be available online: [http://instruct.westvalley.edu/peters/](http://instruct.westvalley.edu/peters/)

**Student Lecture Responsibilities:**

1. **BE ON TIME:** Be respectful to your instructor and fellow students, arriving LATE to class is disruptive to the instructor and your classmates. If you do need to arrive late please sit in the back or side seats, so as to produce the least disruption as possible.

2. **Turn OFF YOUR CELL PHONE ringers!**

3. Do not use our electronic devices except for the purpose of taking notes or quickly looking up information relative to class material. (ie DO NOT text, instant message, surf the web etc.) This is very distracting and rude to your classmates and instructor.

4. Arrive to class prepared – download lecture handouts and read the assigned material PRIOR to attending the lectures.

5. Listen and take complete lecture notes. Do not talk or whisper, no matter how quite your think you are, others are likely distracted by your actions.

6. Following the lecture, complete the series of practice exam questions accompanying each outline. These questions will not be collected and graded but will be seen on exams and quizzes.

7. Ask questions when there is confusion about the lecture (or lab) material. If you don’t understand something, it is likely others don’t either. By asking questions, you will be making the lectures more interactive and interesting for you and others.

8. Visit the web site weekly for announcements, handouts and grade updates.

9. Anyone being distracting may be asked to leave the classroom.

**Laboratory Format:** Much of what we understand about human physiology is derived from laboratory investigation. As such the laboratory portion of the course is integral to your effective learning of physiology. Lab is designed to be a hands-on, interactive exploration of human physiology. Most of the concepts covered in lecture will be further explored in lab as well as additional information only explored in lab. For many the hands on experience and student interaction will help make difficult physiological concepts more understandable. Experiments and activities will be use of chemicals, physiological equipment, bio-instrumentation, experimental animals, and your own bodies. Students are expected to participate in ALL laboratory activities. The ONLY exception will be individuals having a health condition which precludes them from participating. **If this is the case, the student MUST notify the instructor with a written explanation of the situation immediately.**

A secondary aim of the lab is to introduce you to the scientific methods and techniques of physiological exploration. This will include activities ranging from performing experiments, gathering, organizing and analyzing data, and formulating reasonable conclusions. One feature of experimentation (and physiology) that students often find frustrating is the inherent variability. In order to decrease the error and variability of small group data, at the completion of data dependant labs, all students will be asked to share class data which will be posted on line for analysis. In addition, prior to each exam lab time has been set aside for discussion and review of the lab data, experiments, and concepts ("Review" lab session in schedule). During these lab periods, the instructor will review the data collected during preceding labs, emphasize the significance, and clarify any questions raised by students. It is expected that all students will have worked through the data from the preceding labs and be ready to participate in the discussion.
**Lab Data:** Most of the labs conducted throughout the semester will generate experimental data which will need to either be shared with the class or saved to a USB flash drive and taken home for additional examination.

1. **Shared Class Lab Data:** Excel data files containing laboratory data submitted by lab groups during the lab will be available to download from the course webpage in a pdf. format. These files should be able to be read by any computer capable of reading Microsoft Excel files. If you do not have access to Microsoft Excel you may be able to use a free product called OpenOffice from Oracle: http://www.openoffice.org

2. **Group Lab Data:** PowerLab Data Files: Data generated in lab will be done using a program called LabChart (and Scope) from ADInstruments. You may find it beneficial to save LabChart Data Files to work with at home (i.e. to continue your analysis and/or practice with data). PowerLab (aka LabChart) data can be saved to a USB drive during lab and taken home for review (be sure to save copies in both Mac and PC formats from the dropdown menu in the Save dialog box).

Get a printable page of instructions for saving LabChart data files [here](http://www.openoffice.org).

To review these files at home you will need to download the free LabChart Reader software available from ADInstruments: [http://www.adinstruments.com/products/labchart-reader](http://www.adinstruments.com/products/labchart-reader)

**Student Lab Responsibilities:**

1. **BE ON TIME:** Important instructions, demonstrations, safety precautions, and alterations to the lab will be presented at the beginning of lab. For your own safety as well as the safety of others it is important that you heard all of the lab instruction.

2. **Be PREPARED:** Read the assigned lab prior to class. Additional handouts may be provided prior to lab. This will allow the labs to run smoothly and safely.

3. **PARTICIPATION:** In addition to being a required element of lab, participation will further solidify difficult concepts.

4. Do not use our electronic devices except for the purpose of taking notes or quickly looking up information relative to class material. (ie DO NOT text, instant message, surf the web etc.) This is very distracting and rude to your classmates and instructor.

5. **ANSWER laboratory questions outlined in lab manual.** Only a select number of lab worksheets will be collected. These labs are indicated in the course outline with a dot (•); Labs 5, 10, 12, 16,18, and 20b).

6. **BRING:** Lab Manual to all labs. The textbook is also very helpful during labs.

7. **Turn your CELL PHONES RINGERS OFF PRIOR to coming into class**

8. **ASK QUESTIONS:** Especially in lab, clarification of safety information, instructions, lab responsibilities and procedures, is very important. You should not have questions on what you will be responsible for in the lab activity

9. **Anyone being distracting may be asked to leave the classroom.**

10. **CLEAN-UP;** ALL students are responsible for returning the lab equipment, instruments, and lab area to its original CLEAN condition. The following guidelines will be helpful:

**Lab Clean-up:**

a. Wash all glassware, rinse thoroughly and put in designated receptacle

b. Save data, turn off all computer and electrical equipment (coil cords & put away as appropriate)

c. Wipe off any equipment that is soiled (unplug first)

d. Clean, rinse and dry all surgical instruments

e. Clean lab tables with a disinfectant

f. Dispose of all waste IN THE APPROPRIATE CONTAINERS
Note: Eating, drinking, and smoking within the lab room is strictly prohibited (except during the one nutrition lab). No visitors are allowed in the lab.

**Study Time:** For each hour spent in class, students should expect to spend at least 2 to 3 hours outside of class studying in order to achieve an average grade (C). Although this is an estimate for the average student to earn an average grade, expect to spend 20 + hours per week studying! You should find yourself studying, reviewing and preparing for class and lab *each day of the week!* (basically eat, breathe, and sleep physiology). Remember, to be good at anything takes practice. Studying is “practicing” the new knowledge and information in the security of your home rather than on a patient! The amount of time you spend in and outside of class will determine how well you do in the course.

**Note:** Be careful not to confuse *quantity* studying with *quality* study. Simply spending time with your books and materials will not earn you a better grade. Only hours of directed, motivated studying will work toward earning you a better grade! As you instructor, I am here to facilitate your learning by presenting the material and assisting in your understanding. I will do as much as I can to help you, but ultimately it is you who will earn your final grade!

**STUDY GROUPS!!!!!!** One of the best ways to study and understand physiology is by discussing the key concepts with fellow students. I highly recommend organizing study groups. The greater your involvement in the course and the material the better your performance.

**Attendance Policy:** Attendance is mandatory. It is your responsibility to attend ALL class meetings. Attendance will be recorded using *attendance cards*. These cards will be handed out the first day of class and used for the remainder of the semester. The cards must be picked up at the start of class and initialed to indicate your presence. The cards will be returned to the instructor at *the end of the class session*. In addition the attendance cards will also include space for extra credit questions. Class will start on time and last the entire time. It is expected that you are present at the start of class and attend the entire period. If you are unable to attend lecture or lab, it is your responsibility to obtain the lecture and lab material from a classmate. It is also helpful to let the instructor know if you will not be able to attend lab so that adjustments can be made if necessary. Please do not schedule appointments during scheduled class time or plan on leaving early. Due to the difficulty in setting-up lab exercises, they CAN NOT be made up. It is the student’s responsibility to obtain the material which is missed and understand the concepts which were presented. *Failure to attend the equivalent of 10% of the course (4 lecture and/or lab classes) are subject to being dropped from the course.* See page 194 of the 2015-2016 catalogue under “Rights and Responsibilities – Students.”

**Conduct:** Disruptive conduct in lecture or lab is unacceptable. This includes late arrivals, disruptive talk, reading text messages and emails, surfing the web, cell phones, and music devices. Disruptive students will be warned then if the conduct continues will be asked to leave and may lose participation points. Be considerate of other students in the class. Even minor disturbances can significantly impact the ability of others to concentrate and such behavior is inappropriate, disrespectful and will not be tolerated.

**Withdrawing / Dropping** (WVC Catalogue page 179, 182) The last day to withdraw with a W is April 26th. If you decide to withdraw from the course it is up to you to officially and inform the instructor. Do not assume that if you stop coming to class that you will automatically be dropped. Students which stop coming to class but do not officially drop from the course may end up with a failing grade. (ie it is your responsibility to withdraw from the course).

Note: Students are expected to attend all sessions of each class. Instructors may drop students from the class if they fail to attend the first class meeting, or when accumulated unexcused hours of absences exceed ten percent of the total number of hours the class meets during the semester. Moreover, an instructor may drop from the class any student who fails to attend at least one class session during the first
three weeks of instruction. See page 194 of the 2015-2016 catalogue under "Rights and Responsibilities - Students”

**Academic Dishonesty** (WVC Catalogue page 182) The college policy regarding cheating is clearly outlined in the college catalogue and will be strictly enforced. Use of any method other than your knowledge and memory (such as notes, looking on other student’s papers, communication between students, dictionaries, electronic devices etc.) to answer questions on an exam or quiz constitutes cheating and will result in failure of that exam or quiz and/or failure of the course. Such behavior is disrespectful to me as your instructor, your peers, and more importantly to yourself. ALL EXAMS will be administered in SM52.

Plagiarism: Plagiarism is the act of claiming, or even implying, authorship for written work. This means that you have used someone else’s words, ideas or concepts as your own without giving credit to that person.

Note: The College's policy on academic dishonesty covers in-class cheating, out-of-class cheating, plagiarism, and furnishing false information. a definition of plagiarism (found in the policy) AND educate your students about plagiarism when appropriate. Purdue University has a good website that explains to students what plagiarism is and how to avoid it.

The URL is [http://owl.english.purdue.edu/handouts/research/r_plagiar.htm](http://owl.english.purdue.edu/handouts/research/r_plagiar.htm)

**Exam Procedures:**

1. The 9:20 lab section exams will start at 9:40am on exam days in the lab room. The 12:50pm lab section exam will start at 1:00pm on exam days in the lab room. Exams will last 2 hrs.
2. Arrive early to the exam – so you can make sure you start on time. Once the first person turns in their exam, no one arriving late will be allowed to take the exam.
3. Bring all items with you that you will need for the exam: pencil, eraser, scantron (882)
4. Put all belongings out of sight: in cabinet, up front by instructor or leave them in your car
5. You will not be allowed to leave the room once the exam has been administered until you have finished; use the restroom prior to entering the classroom
6. Turn off cell phones and all digital devices and put them away or leave them in your car. You may not have them on your person! If, for any reason, you answer a cell call or text etc. during an exam you will earn a zero on the exam! If you have an emergency that requires you need your cell phone on, you may leave it with your instructor at the beginning of the exam.
7. Students will NOT be allowed to leave the room for any reason once the exam has been administered. If you leave the room you must turn in your exam and forfeit your remaining time.
8. Absolutely NO talking will be allowed during the exam.
9. Any form of cheating will result in a zero on the exam. i.e. using any help other than what comes from your own brain and knowledge.
9. Assigned seating will be utilized for examinations.
10. If you have any questions; ASK for clarification from your instructor.

If there are any circumstances that preclude you from adhering to any of the exam procedures you must speak to your instructor BEFORE the exam for an exception to be made

**Make-Up Policy:** The Lecture Exam and Practical schedule is set and will very likely NOT change. Students should therefore adjust his/her outside obligations accordingly, so as to not miss any scheduled exam.

To qualify for a make-up exam, you MUST : 1. contact the instructor BEFORE the exam either by phone or email and 2. provide a documented (ie doctor’s note) reason for the absence. At the instructor’s discretion a make-up exam may be offered. If a make-up exam is given it may include oral/essay questions.

Exams will NOT be given after grades have been posted (usually one week after the exam). If you know of an obligation in conflict with the current exam schedule let me know NOW so that arrangements can be made.
Evaluation:

Lab Reports: Each student is required to turn in only six of the lab report pages in the lab manual, although you are encouraged to complete all of the lab reports. The graded lab reports are identified by an (•) adjacent to the assigned lab. Lab reports are scored out of 20 points but will be scaled to constitute 10% of your final grade. Points will be awarded based on the lab’s completeness, accuracy, laboratory technique, interpretation and correctness. The due date for the labs will be posted on the website announcement page (generally labs will be due 1–2 weeks after the completion of the lab).

1. Lab 5 Enzyme Kinetics: Due 2/27
2. Lab 10 Muscle (Frog) Physiology: Due 3/22
3. Lab 12 Action Potentials: Due 4/3
4. Lab 16 Electrocardiogram: Due 4/24
5. Lab 18 Cardiac Pharmacology: Due 4/26
6. Lab 20b Renal Physiology: Due 5/24

Homework Problem Sets: Four homework sets will be administered throughout the semester. They will be made available online on the course webpage. Each problem set will be worth 20 pts. You will have approximately one week to complete each problem set. Each problem set consists of data analysis, fill-in questions, problems and short answers. The homework sets are designed to help you think about the concepts that were presented in lecture and lab and make you more familiar with terminology. Students may work on problem sets together but must turn in their own work. If a student copies from another, both the student copying and the student from whom information is copied will receive a zero!

Quizzes: Quizzes worth 20 pts. each will be administered at the beginning of the lab periods throughout the semester. Quizzes consist of true/false, multiple choice, fill-in, and short essay questions. Quizzes are unannounced and anyone coming in late will not receive additional time. Quizzes cannot be made up. You will be able to drop your lowest quiz grade. If you miss a quiz this one will be automatically counted as a zero and dropped. More than one quiz missed will be recorded as a zero grade. (note: it is likely you will have a quiz once a week!)

Oral Presentation: Each student is required to complete an oral presentation (see supplemental handout: “Presentation Guidelines”). Students will present to the class a researched topic relevant to human physiology. Each student will research a current relevant topic and present the topic. Researched information must include at least three peer reviewed scientific periodicals or journals and must be referenced. The presentation must be at least 5 -10 minutes and they must include a one page summary of their topic with the references included. During the 4th week of class a sign-up sheet for presentations/papers will be distributed. Note: the oral presentation must be accompanied by a one - two page type written summary and a reference list.

Exams and Final Exam: There are three 2 hour midterm exams that will be given on the dates listed on the schedule and a 2 hour comprehensive final exam (approximately 65% new material and 35% comprehensive). Exams are composed of true-false, multiple choice, fill-in, and essay questions including stations (with displays that you will need to be able to identify, name, describe and/or explain). Exams will cover material from both the lecture and the lab.

Please bring a scantron (form #882), pencils, eraser, and a calculator to each exam. They can be purchased at the Bookstore. No exams will be dropped.

Participation: Participation is mandatory and shall be evaluated through attendance records and periodic checks of lab activities. Some ways in which to lose participation points are 1. violation of lab procedures, 2. leaving the lab work area in disarray or dirty, 3. demonstration of continued
lack of preparation for lab, 4. failure to complete lab activities, and 5. poor attendance. Note: gross lack of participation may result in additional loss of points (see attendance section).

Note: Students are expected to attend all sessions of each class. Instructors may drop students from the class if they fail to attend the first class meeting, or when accumulated unexcused hours of absences exceed ten percent of the total number of hours the class meets during the semester. Moreover, an instructor may drop from the class any student who fails to attend at least one class session during the first three weeks of instruction.

Note: If any student feels that he/she is not performing as well as they believe they should or simply needs help, be sure to come talk with me before things are out of control. If you have problems at the beginning of the course, chances are that you will continue to have these same problems throughout the course. It is your responsibility to let me know if you need assistance. I will do my best to help you and may also suggest others on campus which may be of assistance (ie tutorial services).  

Tutorial services: 408 741-2038

Grading: You are not entitled to a passing grade, you must earn it. You will be graded based on how well you do, not on how hard you work. Effort is expected, not rewarded. However, you are not in competition with other students. Working in groups is to your advantage. Your course grade will be determined by the total number of points you earn from the following:

**Point Breakdown:**

- Lab assignments (6 @ 20pts scaled to ~10% to grade) ............... 95
- Oral / written Presentation (50 pts.): ................................. 50
- Homework Problems (4 at 20 pts. each): ............................. 80
- Quizzes (20 pts. each - Lowest grade dropped scaled to ~20%) ... 175
- Exams (3 exams at 125 pts. each) ...................................... 375
- Participation/ Attendance: .............................................. 15
- Syllabus Quiz (download from website-due Sept. 10th) ............. 10
- Final Exam (150 pts, comprehensive): ................................. 150

**Total Points Possible:** ................................................. 950 pts

Alternate Grading Option:

Students may choose an option of exam, quiz, participation and oral presentation only grades. As such these students grades will not include the homework or lab assignments. If you would like this option you must decide by the first exam. A written consent for this grade option must be signed and submitted the time of the first exam (2/27). After the first exam a student cannot change their grading option. Grades for the alternate grade option will have a total of 775 pts to earn, but final grades will still be determined as a percentage of points earned divided by points possible (775pts).

Points earned will be converted to a percentage score as follows:

\[
\text{pts. earned / pts. possible) x 100 = %}
\]

Your final course grade will be based on the following scale:

- A ...... 90-100%
- B ...... 80-89%
- C ...... 65-79%
- D ...... 55-64%
- F ...... below 55%

Periodically I will post your grades. This gives you the opportunity to confirm where you stand in the course, if you are missing any work or if I have made any errors recording your grades. Be sure to look it over. If you have any questions regarding any grade you receive and/or the grading method please feel free to talk to me.
Notes: Because of the importance of the lab, credit by examination is not possible. In rare instances if unforeseen circumstances prevent your completion of the course an incomplete grade may be given by arrangement with the instructor. In accordance with school policy, the incomplete must be made up by the end of one year following the semester in which the incomplete is given. This course may be taken again if the final grade is a D or an F.

**Remember, you will be graded based on how well you do, not on how hard you work. Effort is expected, not rewarded.**

**Required Materials:**

**Texts:**
2. Biology 48 Human Physiology Course Manual, Spring 2018, CHiMPs enterprises, Christine Peters- Stanton, West Valley College, Biology Department

**Optional Texts:**
1. *An Introduction to Chemistry for Biology Students*, 9th, Benjamin Cummings, George I. Sackheim, ISBN #: 9780805395716
3. Medical Dictionary

**Supplies:**
1. Scantron Forms : exam forms – *at least four #882, and at least six to eight 815EZ forms.*
2. Hand held calculator

**Optional Supplies:**
1. USB pen (flash) drive for saving lab data
2. Three ring binders : One for Lecture Handouts / One for Lab Handouts
3. Laboratory coat

★ **Note:** You may use an alternate edition of the textbook, but it is up to you to make sure you are reading the appropriate information.

**Important Course relevant Web pages:**
1. Course web page: [http://instruct.westvalley.edu/peters](http://instruct.westvalley.edu/peters)

**Additional Help & Reference:** There is a lot of information to be learned in this class and how you utilize your time will greatly influence how well you do. You will set yourself up to succeed if you attend regularly, come to class prepared, ask questions when you don't understand, take good notes... in general, develop good study habits and just a lot of hard work! Each student must find what works best for them, however here are a few helpful suggestions.

1. Skim your reading assignments *prior* to class so that you will have baseline understanding of what is going to be covered. DON’T read and try to commit to memory the information YET.
   a. Read the Titles and Bullets
   b. Skim the chapter reading
   c. Look at the diagrams
   d. Skim the lecture handouts; familiarize yourself with the topic to be covered
2. Attend lecture (with this baseline understanding). Bring your lecture handouts, take good notes using your handouts (or additional paper if you choose).

3. Ask questions when something is unclear

4. Review your lecture notes the same day as the lecture. You may want to use the following review techniques:
   a. Without looking at your notes, write down the overall concept introduced in the lecture.
   b. Without looking at your notes, write down all of the detailed information you can remember from the lecture.
   c. Compare what you remember with the actual lecture notes. Highlight anything that you didn’t remember. This is information that is not yet in you short term memory.
   d. Rewrite a complete set of lecture notes.

Remember the goal is to retain the information in your long term memory. To transition the memories from short term to long term, your best opportunity is to review the information while it is still fresh, the longer you wait the less you will remember and will have to start all over creating new short term memories. *In practice you will actually be saving time!*

5. Any questions, which come up during your studying, can be addressed at the new class meeting

6. A few days after the lecture, revisit your notes and repeat the steps a – c above. If there is significant loss of information, you don’t know the material well enough and need to review the lecture again.

7. Read the related information in your textbooks for further clarification.

8. Once you feel you have a good understanding of the material, attempt answering the study questions at the end of the handout. DO NOT look through your notes to find the answers. If you do you are only testing how well you can find answers, and remember you will not have the luxury of your study notes on the exam.

9. You can also use the questions in the textbook to help gage your understanding.

10. Read the labs prior to attending class.

11. Participate in all lab activities

12. Answer all lab questions with completeness and accuracy

13. If you have done all of this – then the weekend before the exam will be simply review.

14. Make sure you are getting a good night’s sleep prior to the exams

**Note:** Studies have shown that much of the conversion of short term memories into long term memories occur during sleep. So if you want to remember the information you are studying a good night’s sleep is critical. In addition, memories are more easily retrieved (ie remembered or recalled) if the are “stored” in several locations in your brain. This can be done by using more than one modality. For instance, listening to a lecture uses hearing verses drawing diagrams of the concepts which using complex cognition and manual coordination. Explaining the concept to someone else requires a tremendous amount of complex neural networking. If you can explain a concept to someone you will be even more likely to remember it than simply reciting the material to yourself.

So – Use more than one modality when learning a new concept, Explain the concepts to someone else, and sleep on it! If you are dreaming physiology then memories are being formed!

**Student Learning Outcomes:** This course is intended to provide the student with a fundamental understanding of the structure of the human body. Upon successful completion of this course it is expected that the student will be able to:

a. Explain a disease process, including changes that happen to normal function,

b. Outline a normal negative feedback loop, identifying sensor, integrator, and effector,

c. Explain the functional interrelationship between organ system function and the maintenance of homeostasis.