Welcome to Biology 48! Please read through the following information carefully. In this syllabus you will find descriptions of what you can expect from this course, from me as your instructor, and perhaps most important, what is expected of you.

### Instructor:
Nathan Norris  
Office: V5  
Phone: (408) 741-2634  
E-Mail: nathan_norris@westvalley.edu  
Web: http://instruct.westvalley.edu/norris

Office Hours: Tue & Thu 7:00-7:30am & 4:15-4:45pm, Fri 8:00-9:00am or by arrangement.  
If you cannot make the above times, feel free to drop by, or make an appointment.

As your instructor I am here to facilitate your education by (1) presenting you with the material that you need to learn, and (2) by assisting you in your learning of the material. I will try to make it fun and I will do everything I can to help you, however, I cannot learn it for you - that is your responsibility. If you have questions, please do not hesitate to ask. With effort you will learn and be successful - the effort, however, is up to you.

### I. General Course Information

Biology 48 is a semester long five (5) unit lecture and laboratory course. It is designed to satisfy the requirements for degrees in Nursing, Physical Therapy, Occupational Therapy, Human Performance, Nutrition, Dental Hygiene, and others. 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).

Human physiology is an exciting and dynamic field of study that brings together multiple disciplines leading to the understanding of the function of the human body. Over the semester the function of the various systems making up the human body will be discussed. Emphasis will be placed on the physiological principles of normal function, the mechanism of action, and the regulation of function. There is a lot to learn and it will be challenging, but I hope you will find it as exciting as I do.

**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 the 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 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 at (408) 741-2010 (voice) or (408) 741-2658 (TTY) for assistance.

### II. Texts and Support Materials

**Required:**  

**Optional:**  
Particularly useful materials include a medical dictionary, calculator, physiology coloring book, and colored pens or pencils. In addition a three ring binder is very helpful to hold and organize all of your materials.

**Web Pages:** Instructors Web Page: http://instruct.westvalley.edu/norris/48home.html  
Textbook support page: http://www.physiologyplace.com

**Note:** Computers with internet access are available in the Technology Center. There is currently no fee for the use of the Technology Center but there is a charge for printing.
### Purchasing Course Books
Several options are available to you.

**West Valley Campus Bookstore:** You can purchase all of the required books listed in the course syllabus directly from the bookstore located on West Valley campus. The bookstore also provides an online service in case you do not want to go there in person (http://www.bkstore.com/westvalley). Note: bookstore profits help fund the campus center – purchasing your books from the campus bookstore will help support the campus center.

**Ordering Online (new or used):** I am aware that new book prices are high and that this can place an undue burden on student budgets. One option to save money is to order books online from discount suppliers. The down side to this option is that, depending on the vendor, it can take several days to weeks for your books to arrive, and you will need the “required books” on the first day of class. Consequently, unless you have ordered your books several weeks in advance, this option may better serve you for the purchase of the “optional books” listed in your syllabus. Possible online sources are listed on the course website (http://instruct.westvalley.edu/norris/47home.html).

**Alternative Texts:** In some instances the use of an older edition or a different textbook entirely may be possible. In general this is not an ideal option for several reasons, not the least of which is the difficulty in identifying the appropriate reading assignment. However, if this is an option you would like to pursue please contact the instructor to see if your alternative text is suitable for this course.

### III. Course Objectives
This course is intended to provide the student with a fundamental understanding of the function of the human body. Upon successful completion of this course it is expected that the student will be able to:

- a. describe the normal function of the human body and the organ systems that make it up,
- b. describe and explain the function of the regulatory systems that maintain homeostasis,
- c. understand and explain the alterations of normal function that lead to disease,
- d. understand the experimental process and be able to draw conclusions based on experimental results,
- e. locate, read and understand primary research papers on human physiology, organize experimental data and present conclusions both orally and in written form.

### IV. Nature of the Course
The Human Physiology class meets for 9 hours each week, 3 hours are scheduled for lecture while 6 hours are devoted to lab activities. The amount of time you spend in and outside of class will, in large part, determine how well you do in the course. In addition to the scheduled class meetings plan on spending time in the library, the technology center and with study groups reviewing class material. To get the most out of this class you should plan on devoting as much as 20-25 hours of your time each week, both in and out of class. Science is a demanding discipline that requires hard work and diligence to master. The rewards are, however, well worth the effort.

**Lecture Format:**
During lecture the concepts of Human Physiology presented in the textbook will be discussed, and expanded on where appropriate. Although this portion of the course will follow a traditional lecture format, questions and class participation are encouraged. If, during the lecture you have a question raise your hand and I will try to get to you (If you don't understand something it is likely that others don't also). Asking questions not only ensures that you get the information you need, it can also help create a more dynamic and interesting lecture. Your participation, in effect, can enhance your interest in the course.

To best prepare for each class meeting it is expected that you read through the assigned reading in your text and/or supplementary material prior to the class meeting time and that you take good notes. To assist you with this you will be provided with lecture outlines to use as a guide to the assigned reading, the lectures and the material you are expected to learn. Lecture outlines used effectively can be a beneficial study aid and are highly recommended. Generally you will not need to bring your textbook to class, however, you might find it beneficial to have it available.

If you feel it will be helpful you may tape the lectures, however, I have found that students who tape the lectures often do not listen as attentively and must spend additional time listening to the taped lecture again. Your time would most likely be better spent reading the assigned material and studying your notes rather than listening to a lecture you have already heard. If you do choose to tape the lectures, DO NOT substitute the tapes for attentive participation and note taking in class.
Finally, be considerate of other students in the class. Please turn off cell phones & pagers and refrain from talking during the lecture (other than to ask questions). Even minor disturbances can significantly impact the ability of others to concentrate on the lecture and such behavior is inappropriate for a college level course.

**Laboratory:**

During lab you will further your understanding of material discussed in lecture through hands on experience. The principle reason for laboratory work in physiology, as in other disciplines, is to become personally involved in the subject. In fact, our current understanding of physiology comes principally from laboratory investigation. Working as a group and/or individually, you will physically explore the function of the human body through experimentation with live animals and/or human volunteers*. Thoughtful, disciplined hands on work in the lab is often the most effective method for learning physiology, for most students this is where things start to make sense. How much you gain from this depends on your involvement and participation.

*Note: Physiology is concerned with the functions of living animals and of necessity the material studied in this course must be alive. For many of the experiments conducted in lab you will serve as the experimental subject. Depending on the particular experiment, some individuals with medical conditions will not be required to volunteer as a human subject, participation as a subject is voluntary.

For several experiments live animals will be used – the use of live animals is not a right but a privilege, one which can be granted only if certain moral and ethical responsibilities are understood and accepted. The animals with which you will work are sentient beings; they can be used only if extreme care is taken to ensure that they are handled gently and feel no pain. The taking of life should be done with high purpose. In this case, the knowledge and experience you gain.

In addition to exploring basic physiological principles, a secondary aim of the lab is to introduce you to the methods and techniques of physiological exploration and research. This will include activities that involve learning to use fairly sophisticated laboratory equipment (spectrophotometers, chart recorders, oscilloscopes…), performing mathematical analysis of laboratory data and searching and reviewing primary research literature. It is not expected that you become “expert” in any of these techniques, however each individual should familiarize themselves with all of the activities in the lab. Do not shy away from procedurally challenging or equipment intensive activities. Some of the skills that you will acquire during this class can only be learned through participation.

Just as it is important to prepare ahead of time for each lecture, it is equally if not more important to prepare for each lab. It is expected that you read through the assigned reading in your lab manual and/or handouts prior to the lab meeting time. You will need to bring your lab notebook and handouts to every lab meeting. During the introduction to the lab verbal modifications to the lab handouts are sometimes given as well as important supplemental information. An important laboratory objective for you to learn is to integrate multiple sources of information.

One feature of physiology that students often find frustrating is the variability inherent in physiology. The concepts that will be presented in lecture and the text are based on statistical analysis meaning they apply in general but cannot always be demonstrated in each experiment. For this reason inter-table interaction and discussion is strongly encouraged. Prior to each exam, time has been set aside for discussion and review of the lab experiments (see “Review” labs in the lab schedule). During these lab periods the data collected during preceding labs will be reviewed and discussed. It is expected that all students will have worked through all of the data from the preceding labs and be ready to participate in the discussion. Note: Review labs are a class activity, this is your last chance to get your questions answered before the exam. Attendance and participation in review labs is mandatory.

At the end of the lab it is your responsibility to be sure that all materials are clean and put away, and that the tables are wiped down. Please leave the laboratory cleaner than it was when you came in. The following guidelines may be helpful:

- a. wash all glassware with an appropriate detergent (i.e. Alconox, not hand soap) and rinse thoroughly
- b. turn off all electrical equipment (coil cords and 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 damp sponge and disinfectant
- f. dispose of all waste IN THE APPROPRIATE CONTAINERS

**Note:** Eating, drinking, and smoking within the lab room is strictly prohibited. These are health and safety issues – violations may result in loss of points. No visitors in the lab.
V. Evaluation:  

Nobody rises to low expectations. - Calvin Lloyd

Writing Assignment:
Each student is required to turn in one formal written report (see supplemental handout: "Writing Assignment"). Writing assignments are worth 35 points.

Lab Reports:
Eight labs are designated as report labs in the lab schedule. Lab reports will be due approximately 1-2 lab meetings after completion of the laboratory activity and are worth 10 points each. Each lab report will consist of graphic presentation and analysis of class data. You will be expected to answer questions based on the class data and solve related case history problems.

Quizzes:
There will be eight quizzes given during the course. Four of the quizzes will be given at the beginning of lecture on dates indicated in the lecture schedule by a “Q”, and four of the quizzes will be given in the lab on review days. Each quiz will be worth 15 points. Your one lowest quiz will be thrown out (only seven quizzes will be counted towards your final grade). Quizzes will consist of true/false, multiple choice, fill-in, and short essay questions.

Note: quizzes will allow you to determine how well you understand the material before the exam is given. If you are doing poorly on the quizzes be sure to request help before the exam. Missed quizzes cannot be made up.

Laboratory Practical Exams and Final Exam:
There are three practical midterm exams that will be given on the dates listed on the lab schedule and a comprehensive final exam (approximately 60% new material and 40% 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, manipulate and/or explain). Exams will cover material from both the lecture and the lab.

Please bring a scantron (form #882) and #2 pencils to each exam. They can be purchased at the Bookstore. No exams will be dropped.

### Exam Guidelines:
- Arrive early so that you may start the exam on time.
- Bring all items needed for the exam with you (scantron #882, calculator, #2 pencils and an eraser).
- Turn cell phones and pagers off and put them away.
- Put all materials not needed for the exam (i.e. books, binders, notes and other loose materials) away inside your backpack. Put your closed pack out of view under your seat or at the front of the room. Leave anything you don’t want in the classroom in your car.
- Sit far apart (i.e. in the lecture hall sit in every other row).
- You may not leave the room for any reason once the exam has started. Use the restroom before the exam starts. If you must leave the room you must turn in your exam and forfeit your remaining time.
- Once the first person leaves the room, no latecomers will be admitted to take the exam.
- Cheating will result in a zero on the exam and probable expulsion from the class.
- Put your name and exam form number on both your exam form and your scantron (#882).
- You may write on your exam.
- READ the questions! If you don’t understand a question, ASK.
- Erase mistakes completely.

**Warning:** DO NOT miss an exam! Make ups are typically NOT offered. Only rarely, under extreme conditions, are make-up exams given. To qualify for a make up exam you must contact the instructor immediately and provide a documented reason for missing the exam (i.e. doctors note). At the instructors discretion and convenience a make up exam may or may not be offered. If given, make up exams may include oral and/or essay components. Exams cannot be made up after grades have been posted. Note: Missing an exam will most likely result in failure of the course.

Participation:
Participation 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 point loss (see attendance section).

Extra Credit: 

*Education is not received. It is achieved.* - Anonymous

Extra credit assignments are not offered. If you are not performing as well as you would like, increasing your workload with extra credit assignments will not help. If you are having trouble please come see me and we can discuss possible alterations in your current study practices that may help.

VI. Grading 

*If you can find a path with no obstacles, it probably doesn’t lead anywhere.*  
- Frank A. Clark

Your grade will be determined by the number of points you earn, not on how hard you work. Effort is expected, not rewarded. However, you are not in competition with other students, your course grade will be based on the total number of points you earn from the following:

<table>
<thead>
<tr>
<th>Point Breakdown (estimate)</th>
<th>Points</th>
<th>Note: exact point values may vary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing Assignment (35 pts.):</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>Lab Reports (8 at 10 pts. each):</td>
<td>80</td>
<td>Percentage scores will be</td>
</tr>
<tr>
<td>Quizzes (7 at 15 pts. each):</td>
<td>105</td>
<td>calculated as follows:</td>
</tr>
<tr>
<td>Practical Exams (3 exams at 100-125 pts. each):</td>
<td>350</td>
<td>(pts. earned / pts. possible) x 100 = %</td>
</tr>
<tr>
<td>Participation:</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Final Exam (150 pts., comprehensive):</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Total Points Possible:</td>
<td>735</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Percent</th>
<th>Total Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 90-100%</td>
<td>662 - 735</td>
</tr>
<tr>
<td>B 80-89%</td>
<td>588 - 661</td>
</tr>
<tr>
<td>C 65-79%</td>
<td>478 - 587</td>
</tr>
<tr>
<td>D 55-64%</td>
<td>405 - 477</td>
</tr>
<tr>
<td>F below 55%</td>
<td>less than 405</td>
</tr>
</tbody>
</table>

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. Note: you will need to provide a "secret identity" for posting of your grade. Remember, you are not entitled to a passing grade, you must earn it…make the effort and you can be successful.

**Note:** 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.

VII. Academic Dishonesty:

The college policy on cheating is clearly spelled out 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 students papers, communication between students 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 of other students and more importantly, of yourself. No dictionaries of any kind may be used during the exams or quizzes.

VIII. Attendance:

It is your responsibility to attend ALL class meetings. 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. Your success depends on your attending regularly, taking good notes and studying. Please do not schedule appointments during
scheduled class time or plan on leaving early. Unexcused absences may result in a loss of points and/or failure of the course. Failure to attend the equivalent of 10% of the course for ANY reason may result in disqualification from the course (i.e. failure).

It is critical that you come to class prepared, having read the assigned material ahead of time, and that you take good notes. Reading the text alone will not substitute for attendance. The text contains material that will not be covered while some material that will be covered is not in the text. Students who attend, take good notes and study, will do well in this course.

IX. Dropping the Course:

If you decide to drop the course it is up to you to fill out the appropriate paperwork and inform the instructor. Do not assume that if you stop coming to class that you will automatically be dropped. Students who fail to attend (i.e. withdraw) but do not complete the appropriate paperwork and inform the instructor may receive a failing grade.

X. Miscellaneous Notes

CELL PHONES: Due to the disruptive nature of cell phones and pagers all cell phones and pagers must be turned off while in lecture and lab. If for some reason you must leave your cell phone or pager on please switch it to silent mode and leave the room before answering it.

Ringing cell phones and/or pagers during exams may result in failure of the exam. If you must leave your phone on during an exam please switch it to silent mode. If, for any reason, you answer a cell phone or pager during an exam you must turn in your exam and forfeit your remaining time.

SMOKING: It is the policy of the District to provide a safe learning and working environment for students and employees. It is the intent of the District to provide a smoke-free environment to the greatest extent possible. Smoking is prohibited in all indoor locations within the District. Smoking is prohibited in all areas of the Mission and West Valley campuses except in parking lot areas that are at least twenty five (25) feet away from buildings and pathways.

XI. Tips for Success in the Course:

There is a lot of information to be learned in this class and how you utilize your time will greatly influence how much you learn. Everyone can succeed in this course. However, to do so you must make the effort. You must be willing to work hard. This includes attending regularly, coming to class prepared, asking questions when you don't understand, taking good notes... in general, developing good study habits. These skills can be developed. If you don't have these skills the instructor may be able to provide some suggestions. (Note: For an average class you can expect 2 hours of study outside of class each week for each unit the class is worth.)

Each student must find what works best for them, however, some hints may be helpful. These include preparing for class (by reading your assignments prior to class so that you may get the most out of the time you have in class) and regularly studying/reviewing the information presented. In addition to studying the material on your own I suggest that you form study groups to review the material.

To assist you in your preparation and review of physiology, lecture outlines will be provided as a guide to the lectures and as a study aid. During the lecture take notes on your own paper, not on the outline supplied. After the lecture (not the night before the exam) sit down with your notes, the book (pay particular attention to the figures), and the lecture outline. Fill in the blanks on the outline from both your notes and the text - if it is not on the outline don't emphasize it. Once you feel comfortable with the material get together with a small study group and go over it (the library has rooms available for group study). Answer the questions at the end of the chapter and in the lab materials. Use your filled in lecture outline as a reference when needed. If you can apply the facts and concepts presented in the lecture, and learn the language (you will learn lots of new terminology) you will be well prepared for the exams. Remember, the lecture and the lab make up one course thus they support each other.

It is just as important, if not more so, to be well prepared for lab ahead of time by reading through your assignments before attending lab. Proper preparation will increase your ability to get the most out of the lab activities and discussions. The lab is also your chance to ask questions. Take advantage of it, don't be afraid to ask for help if you need it.

Note: This is a challenging class. Those of you who do not put in the effort to study hard and attend class regularly most likely will not pass. You are responsible for meeting the requirements of the course and therefore for your own success. Remember, as your instructor I am here to assisting you with your understanding. If you have questions, please do not hesitate to ask and I will do my best to help you,
however, I cannot learn it for you - that is your responsibility. With effort you will learn and be successful
- the effort, however, is up to you. Remember, learning is work but it can also be a lot of fun. I hope you
find the study of physiology as exciting as I do.

You have to have confidence in your ability, and then be tough enough to follow through
- Rosalynn Carter

XII. Campus Resources
As a registered student you have a host of resources on campus that are available to you, many free of
charge. The following is a partial list (for a complete list please refer to the college catalogue).

Admissions and Records
- Apply for Admissions (http://westvalley.edu/classes/)
- Register for Classes (408) 741-TREG

Health Services (408) 741-2027
- provides limited medical treatment, health assessment, counseling and referrals

Tutorial Services (408) 741-2038
- tutoring is available without charge to students in academic and/or vocational subjects

Financial Aid (408) 741-2024
- program to assist eligible students in meeting education costs while attending school

Counseling Center (408) 741-2009
- provides academic, career and personal counseling for students

Disability & Educational Support Program (DESP) (408) 741-2010
- program to integrate students with disabilities into classes and equalize educational opportunities

Educational Transition (ET) for Women and Men (408) 741-2022
- program for adults who are returning to continue or begin their education

Extended opportunity Programs & Services (EOPS) (408) 741-2023
- support services for students who have historically experienced language, social, financial barriers

Technology Center (408) 741-2666
- computers with internet access are available, requires a nominal fee for printing

XIII. Important Dates

<table>
<thead>
<tr>
<th>Important Dates</th>
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<th>Holidays:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Last day to Add . . . . . . . . . .</td>
<td>Feb. 11</td>
<td>Presidents Day . . . . . . .</td>
<td>Feb. 12, 15</td>
</tr>
<tr>
<td>Last day to Drop without a &quot;W&quot; . . .</td>
<td>Feb. 19</td>
<td>Spring Break . . . . . . . .</td>
<td>Mar 29 - Apr 3</td>
</tr>
<tr>
<td>Last day to Drop with a &quot;W&quot; . . . .</td>
<td>Apr 30</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Exams . . . . . . . . . . . .</td>
<td>May 24-28</td>
<td>Graduation . . . . . . . . .</td>
<td>May 28</td>
</tr>
</tbody>
</table>
# Date | Topic | Reading (5th ed. text - chapter: pages)
---|---|---
1 | 2-Feb | Introduction / Homeostasis 1: 1-8, 6: 196-214
| 4-Feb | Chemistry Review 2: 20-52
2 | 9-Feb | Cell I: Chemistry / Metabolism 4: 93-131
| 11-Feb | Cell II: Chemistry / Metabolism 4: 93-131
3 | 16-Feb | Cell III: Membrane Transport / Potentials 3: 53-63 (fyi 63-92), 5: 132-177
| 18-Feb | Cell IV: Membrane Transport / Potentials 3: 53-63 (fyi 63-92), 5: 132-177
4 | 23-Feb | Q Muscle Physiology I 12: 406-445
| 25-Feb | E Muscle Physiology II 12: 406-445
5 | 2-Mar | Muscle Physiology III 12: 406-445
| 4-Mar | Neurophysiology I 6: 178-196, 8: 246-295
6 | 9-Mar | Q Neurophysiology II 6: 178-196, 8: 246-295
| 11-Mar | Neurophysiology III 6: 178-196, 8: 246-295
7 | 16-Mar | Nervous System I: ANS 11: 385-405
| 18-Mar | Nervous System II: ANS 11: 385-405
8 | 23-Mar | Q Hematology / Immunology I 16: 546-567, 24: 782-812
| 25-Mar | E Hematology / Immunology II 16: 546-567, 24: 782-812
3/29-4/3 | Spring Break - no classes -
9 | 6-Apr | Cardiovascular Physiology I 14: 467-511, 15: 512-545
| 8-Apr | Cardiovascular Physiology II 14: 467-511, 15: 512-545
10 | 13-Apr | Q Cardiovascular Physiology III 14: 467-511, 15: 512-545
| 15-Apr | Respiratory Physiology I 17: 568-596, 18: 597-621
11 | 20-Apr | Respiratory Physiology II 17: 568-596, 18: 597-621
| 22-Apr | Digestive Physiology I 21: 686-723
12 | 27-Apr | Q Digestive Physiology II 21: 686-723
13 | 4-May | Renal Physiology II 19: 622-649, 20: 650-685
| 13-May | Reproductive Physiology I 26: 828-867
15 | 18-May | Reproductive Physiology II 26: 828-867
| 20-May | Q wrap-up / review
16 | 25-May | **FINAL EXAM** (150 pts.)
All Sections (84415, 84416) - Tue, May 25th - 7:30AM-9:30AM in SM 34
† Note: the scheduled time for the final is based on the start time for the lecture.

**Important Dates**

| Event | Date |
---|---|
Last day to Add | Feb. 11 |
Last day to Drop without a "W" | Feb. 19 |
Last day to Drop with a "W" | Apr 30 |
Final Exams | May 24-28 |

**Holidays:**

| Holiday | Dates |
---|---|
President's Day | Feb. 12, 15 |
Spring Break | Mar 29 - Apr 3 |
Graduation | May 28 |
## LABORATORY SCHEDULE

**Biology 48 - Human Physiology**  
West Valley College – Spring 2010

<table>
<thead>
<tr>
<th>#</th>
<th>Date</th>
<th>Topic (“*” indicates report lab)</th>
<th>Lab Manual</th>
<th>Text Ref</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2-Feb</td>
<td>Introduction: Homeostasis</td>
<td>1</td>
<td>1: 1-8, 6: 196-209</td>
</tr>
<tr>
<td></td>
<td>4-Feb</td>
<td>Bioinstrumentation</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>9-Feb</td>
<td>Data Presentation and Analysis</td>
<td>3</td>
<td>1: 8-19</td>
</tr>
<tr>
<td></td>
<td>11-Feb</td>
<td>*Cellular Chemistry: Enzyme Activity</td>
<td>4</td>
<td>4: 93-105</td>
</tr>
<tr>
<td>3</td>
<td>16-Feb</td>
<td>Cellular Metabolism: TCA</td>
<td>6</td>
<td>4: 105-116</td>
</tr>
<tr>
<td></td>
<td>18-Feb</td>
<td>*Membrane Transport: Diffusion / Osmosis</td>
<td>5</td>
<td>5, append. B1-3</td>
</tr>
<tr>
<td>4</td>
<td>23-Feb</td>
<td>*Review I / Quiz #2 / Lab Reports Due</td>
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<td>25-Feb</td>
<td><strong>Practical Exam I</strong></td>
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<td>5</td>
<td>2-Mar</td>
<td>Muscle Physiology I: Human</td>
<td>12, Handout</td>
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<td>4-Mar</td>
<td>*Muscle Physiology II: Frog</td>
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<td>6</td>
<td>9-Mar</td>
<td>Reflexes</td>
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<td>13</td>
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<td>11-Mar</td>
<td>*Neurophysiology: Action Potential</td>
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<td>16-Mar</td>
<td>Sensory Physiology I (lec + lab)</td>
<td>9, 10, 11</td>
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<td>18-Mar</td>
<td>Sensory Physiology II (lec + lab)</td>
<td>9, 10, 11</td>
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<td>23-Mar</td>
<td>*Review II / Quiz #4 / Lab Reports Due</td>
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<td><strong>Practical Exam II</strong></td>
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<td>9</td>
<td>6-Apr</td>
<td>Hematology / Blood</td>
<td>13, 14</td>
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<td>8-Apr</td>
<td>Library Orientation <em>(topics due)</em></td>
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<td>10</td>
<td>13-Apr</td>
<td>Cardiovascular I: Function</td>
<td>15, 16</td>
<td>14</td>
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<td>15-Apr</td>
<td>*Cardiovascular II: Pharmacology</td>
<td>17</td>
<td>11, 14</td>
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<td>20-Apr</td>
<td>*Respiration <em>(paper outline due)</em></td>
<td>18</td>
<td>17, 18</td>
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<td>22-Apr</td>
<td>Digestive Physiology</td>
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<td>27-Apr</td>
<td>*Review III / Quiz #6 / Lab Reports Due</td>
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<td>29-Apr</td>
<td><strong>Practical Exam III</strong></td>
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<td>13</td>
<td>4-May</td>
<td>Renal Physiology I: Urinalysis <em>(term paper due)</em></td>
<td>20</td>
<td>19, 20</td>
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<td>6-May</td>
<td>*Renal II: Volume Reg / *Endocrine Physiology: GTT</td>
<td>21, 22</td>
<td>7, 19, 20, 22</td>
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<td>14</td>
<td>11-May</td>
<td>Data Analysis</td>
<td>21, 22</td>
<td>7, 19, 20, 22</td>
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<td>13-May</td>
<td>Exercise Physiology / Physical Fitness</td>
<td>23</td>
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<td>15</td>
<td>18-May</td>
<td>Nutrition (Pot-Luck!)</td>
<td>24</td>
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<td>20-May</td>
<td>*Review IV / Quiz #8 / Lab Reports Due</td>
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<td>25-May</td>
<td><strong>FINAL EXAM</strong> <em>(150 pts.)</em> All Sections *(84415, 84416) - Tue, May 25th - 7:30AM-9:30AM in SM 34</td>
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† Note: the scheduled time for the final is based on the start time for the lecture.

### Important Dates

- Last day to Add: Feb. 11
- Last day to Drop without a "W": Feb. 19
- Last day to Drop with a "W": Apr 30
- Final Exams: May 24-28

### Holidays:

- Presidents Day: Feb. 12, 15
- Spring Break: Mar 29 - Apr 3
- Graduation: May 28