

Spring 2021 BIOL-2420-PT1 Syllabus

Bio2420: Human Physiology | Fall 2014

CONTACT INFORMATION

Pre-Requisites

Any one of the following: USU 1350 (<http://catalog.usu.edu/content.php?catoid=6&navoid=1192#t4997>), BIOL 1010 (<http://catalog.usu.edu/content.php?catoid=6&navoid=1192#t747>), BIOL 1500 (<http://catalog.usu.edu/content.php?catoid=6&navoid=1192#t5469>), BIOL 1610 (<http://catalog.usu.edu/content.php?catoid=6&navoid=1192#t6839>), BIOL 2060 (<http://catalog.usu.edu/content.php?catoid=6&navoid=1192#t8581>), BIOL 2320 (<http://catalog.usu.edu/content.php?catoid=6&navoid=1192#t7280>), CHEM 1010 (<http://catalog.usu.edu/content.php?catoid=6&navoid=1192#t2347>), CHEM 1110 (<http://catalog.usu.edu/content.php?catoid=6&navoid=1192#t1591>), CHEM 1210 (<http://catalog.usu.edu/content.php?catoid=6&navoid=1192#t4775>), AP Biology or AP Chemistry with a score of 3 or higher.

Instructor

Tyson D. Chappell PhD.
613-5345
tyson.chappell@usu.edu
Office: Reeves #261

Office Hours

MWF 11:30- ~12:30. TTH: 11:00- 1:20pm.

Course Description

This course focuses on the **function** of the human body. It concentrates on cell membrane function within various systems. Students will study the dynamics of structure as-well-as the coordinated functional interaction between organs within systems. It is a laboratory and personal study intensive course.

A good background in chemistry, physics, and biology are GREATLY beneficial to students in this course. You have been advised/warned.

This course is required for all nursing students and recommended for students in premedical, pre-dental, pre-veterinary, and other allied health pre-professional programs. Students taking the course must enroll for both lecture and laboratory.

LEARNING OUTCOMES

Outcomes

- Because of their complexity, certain systems require more time to address in both lecture and laboratory. Less complex system are addressed in lecture-laboratory. At the end of the semester, students will learn:
 1. **Significant factual info/knowledge regarding human physiology and some anatomy.**
 2. **To apply course material (to improve thinking, problem solving, and decisions) in order to exhibit mastery of information reviewed and studied in this course.**

3. **To develop specific skills, competencies, and points of view needed by professionals in the field most closely related to this course.**
4. **How to find and use resources for answering questions or solving problems**
5. The cell membrane (and its function) in general.
6. The role of enzymes in healthy and diseased states.
7. The different methods in which energy is produced within the cell.
8. To identify the structure of different muscle cells and how the structure enables the cell to function in its unique way.
9. The chemical communication that occurs between various endocrine glands and the metabolic response produced by these signals.
10. How syncytial muscle tissue and conducting muscle tissue interact to produce coordinated heart activity.
11. The basic components requisite to produce an electrical impulse and how it propagates down an axon.
12. The basic structure and function of specific regions of the brain.
13. The function of sensory receptors in the skin and eyes.
14. The proteins involved with muscle contraction and the order of events from nerve stimulation at a muscle to contraction and relaxation.
15. The role of the heart in producing pressure to pump blood through the body
16. The role of blood in transporting oxygen as well as the function of the various white blood cells.

Required Student Skills

Ability to take notes, follow directions, attend class PROMPTLY, and respond to a lecture teaching method consisting of white-board discussion and multimedia presentations.

LEARNING RESOURCES

Textbook & Reading Materials

1. (Required): **Principles of Human Physiology**; Author: Stanfield, Cindy; Publisher: Pearson; ISBN: 978-0-321-819345; current edition: 5th. (Earlier editions can be used however, the student will be responsible for keeping up with any material inconsistent with the 5th ed.). **Customized version= Human Physiology; ISBN 978-1-269-11666-4**

2. (Required): **Human Physiology: Concepts and Clinical Applications; Author: Fox, Ira; Publisher McGraw Hill; ISBN: 9787-0-07-729617-9; current edition: 14th**. Students must use a NEW laboratory book (and current edition). Customized options ISBN = 9781121844100

3. (Optional yet recommended): **Anatomy and Physiology Revealed 2.0 (or 3.0 is the online version): An Interactive Cadaver Dissection Experience**; McGraw-Hill Higher Ed. ISBN: 978-0-07-337807-7.

4. Recommended: that students have one **additional** physiology text available for study. Physiology is a subject, unlike Anatomy so much, that can be explained in various ways. Having an extra text will often be **very helpful** in order to clarify points which may be confusing, or to reinforce principles which are considered important.

5. A great book that is FREE to use as a reference to our course book (along with the numerous anatomy books on reserve in the library) can be found here: <https://openstaxcollege.org/textbooks/anatomy-and-physiology/get> (<https://openstaxcollege.org/textbooks/anatomy-and-physiology/gethttp://>). You could even donate just a few bucks as an incentive for more free books to be made available to everyone.

Canvas

Canvas is the where course content, grades, and communication will reside for this course.

- <http://canvas.usu.edu> (<http://canvas.usu.edu/>)

- Your **username** is your **A#**, and your **password** is your global password (the same one you use for Banner or Aggiemail).
- For Canvas (<http://canvas.usu.edu/>), Passwords (<https://id.usu.edu/Password/Help/#password>), or any other computer-related technical support contact the IT Service Desk (<http://it.usu.edu/>).
 - 435 797-4357 (797-HELP)
 - 877 878-8325
 - http://it.usu.edu (<http://it.usu.edu/>)
 - servicedesk@usu.edu
- All reserve materials, including my power point lectures, the syllabus, class schedule, and updated grade sheets, will be available through Canvas. To access Canvas, go to the web address: <https://usu.instructure.com/login> (<https://usu.instructure.com/login>) . Student “A numbers” and password will be required to login. Privacy is your responsibility. You will be responsible for every email and quiz submitted under your name. You will also be held accountable for every email I send through Canvas. You will want to check Canvas regularly. Canvas has many useful features (your assignment scores, student study resources, animations, etc.) and you should take the time to explore them from within our course page. You may also contact Debbie Pearson if you have trouble logging on or questions regarding use 613-5716 debbie.pearson@usu.edu (<mailto:debbie.pearson@usu.edu>)

Software and Library resources

Some anatomy and physiology software with animations and numerous physiology text books (which may be very helpful in gaining various viewpoints when studying physiology this semester) can be found on reserve in the library under "Chappell's reserve section".

LEARNING ACTIVITIES

Pre-exam study guides

These guides will be open book for you to complete and they will consist of key questions regarding the newest chapter of information. The guides are meant to help you understand the material in preparation for exams. They will be available for the student to complete at their own discretion and on their own schedule. Try doing a few prior to an exam to see if they benefit your own study strategy. The guide is automatically corrected after you complete it to see how well you know the information. If enough students like these and find them beneficial, I will do my best to have them ready for all of the chapters throughout the semester. Currently about 7 guides are available

Labs

The lab manual is an important source of material that will give the student additional contact with the required information that will need to be learned prior to quizzes and exams. Weekly lab assignments are meant to help you review and better learn the subject material. The assignments are not meant to be mere “busy work”. Assignments require the student to answer specific questions (sometimes hypothetical questions) and sections that can be found in the syllabus schedule. **3** times this semester you will need to hand in all completed assignments. The completed lab manuals turned in on time are each worth **50** points. Incomplete assignments or those turned in late will not be worth more than 50% credit and additional points will be removed from incorrect answers. It is very important that you stay on top of these questions as they can build up fairly quickly. Follow the syllabus closely to keep up to date and on track. You may turn in your assignments anytime earlier than the due date. Remember, the assignment is meant to help you learn. If you’re just writing down the answers from your friend, you’re really not taking the class seriously and your grade will reflect as much.

Do all that you can to earn all your laboratory points. Some of you will unfortunately miss a higher grade by only a very few points. Don’t let this happen to you. Earn all your laboratory points. You will likely need them to buffer the very difficult exams.

No food or drink is allowed in lab when performing dissections. Students will work in self-assigned groups of two to four in lab depending upon the particular lab. However, lab reports should be your own.

No lab book points can be earned if you do not attend lab when experiments or procedures are being performed for a respective lab book section.

Exams

Exams will include material from lecture notes, class discussions, and material found in the lab and textbook. There will be **7 exams** that will be taken in the Testing Center on campus. Each exam will allow 2 hour for their completion. Exams are worth **150 points**. There will be NO make-up exams without adequate evidence for a justified reason as to why you didn't take your exam when it was available. No exam will be dropped. You have two to three days (check schedule for specifics) to take your exam/quiz. Do not procrastinate until the last exam day as frequently students will feel fine on the first or second day the exam is available, but then unfortunately become sick on the final day of the exam. Students are individually responsible to schedule their exams during the

You must bring picture identification to be admitted for the exam.

The Final exam can be taken between Dec 8th to 12th.

Testing center hours of operation M-Th: 8:30 to 9:30pm (last test given out at 9pm). Friday: 8:30-7:30 (last exam given at 7pm).

You must bring picture identification to be admitted for the exam. The Testing Center phone (435) 613-5325, the Director is Cathrin Alaei.

Furthermore, I will inform you of the relevant clinical applications in each chapter that will need to be understood in some detail to the extent that you will be able to explain a specific disease or disorder.

GRADES

Your grade is based on the following:

Studying and Extra credit

To receive a B or an A grade, you will need to spend the appropriate amount of focused study outside of class e.g. each credit should merit 3 hours of studying outside of class. Ergo, a 4 credit class should find you studying at least 12+ hours outside of class each week to attain an A or B. If this amount of studying is not adequately assisting you in earning the grade that you desire, perhaps additional time may be required as well as serious reflection on your study habits.

Extra Credit: At random times I will give extra credit (EC) points for answering questions in class, often relating to the lecture material, or for answering additional questions on exams.

DO NOT ASK FOR EXTRA CREDIT THROUGHOUT THE SEMESTER AND DEFINITELY DON'T ASK FOR IT AT THE END OF THE SEMESTER EVEN IF YOU NEED JUST A FEW MORE POINTS ON YOUR GRADE.

Every day, every hour, every exam is important. Work for your grade. Work to understand and learn the material. It is all on you. Your education, your life, your drive, and your reward.

In addition, +5 points will be given to students that fill out their online student evaluation form for this course. You will need to **print off the last page of the evaluation that indicates the completion of the course evaluation.** **Turn this printed page into me immediately afterwards.** An additional +5 points will be given to all if 80% of the class also fills out the student evaluation form. Details will be coming in ~13 weeks. When filling out the course evaluation, please pay extra attention to your feelings regarding the course objectives as mentioned above in bold highlights. Thank you.

Grading Scheme

Grade-Determination Method:

Total points are distributed as follows:

Completed laboratory assignments turned in 3 times @ 50 points each.....150 pts.
7 exams @ 150 points each1050 pts.
Total Points.....1200 pts.

Grading Scale:

The total points obtained by each student will be turned into a letter grade. The grading scale is:

A (94% -100%), **A-** (90% - 93%)
B+ (86% - 89%), **B** (83% - 85%), **B-** (80% -82%)
C+ (76% - 79%), **C** (73% - 75%) , **C-** (70% - 72%),
D+ (66% - 69%), **D** (60% - 65%),
F (those at or below 59%)

COURSE POLICIES

Student support and those with disabilities

If a student has a disability that qualifies under the Americans with Disabilities Act (ADA) and requires accommodations, he/she should contact the Disability Resource Center for information on appropriate policies and procedures. Disabilities covered by ADA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact DRC if they are not certain whether a medical condition/disability qualifies. You may contact the DRC by phone (435)613-5337, email meranda.saccomano@usu.edu (<mailto:jan.thornton@ceu.edu>) or visit the office located at JLSC 223.

*Student counseling services are also available in the DRC Office. Please contact Jan Thornton by phone (435)613-5326 or email at jan.thornton@usu.edu (<https://owa.usu.edu/owa/redir.aspx?C=9fb3319bd24947ebbc06d6ae1b6faf9a&URL=mailto%3ajan.thornton%40usu.edu>) to set up an appointment. This is a free service to USU Eastern students.

1. **Cheating** – Cheating in any form will not be tolerated. This includes, but is not limited to, intentionally using or attempting to use or providing others with unauthorized information, materials, or study aids in any academic exercise or activity. Substituting for another student, or permitting another student to substitute for oneself, in taking an examination or preparing academic work is also considered a form of cheating. In the testing center you can NOT taking in your own scratch paper. If you need paper to write anything down on, it must be requested of the testing center helpers and that paper must be turned back in prior to you leaving the center. Do not throw it away, give it to the helpers to dispose of. Absolutely NO cell phone use or any other electronic aids are permitted without prior approval. Those who cheat will be removed from the class roll, and will be subject to the college’s disciplinary measures..
1. **Attendance** – Class attendance is your responsibility. However, it has been shown that students who attend classes regularly have a higher grade than those who do not. **I definitely do mind tardy behavior.** Please do not come to class late, it is disruptive for those who come on time and are trying to focus and understand the lecture.

The amount of material covered every lecture and lab is significant. I advise you, missing any class, or leaving early is not going to help you learn the information any better. We will be covering huge amounts of information and you must be prepared prior to each class by having already read that day's material ahead of time otherwise you may become swamped with new material and lost very easily.

Class Courtesy – I reserve the right to remove any student from my class that may be disruptive or hinder the educational progression of any other student. Please be courteous to other students and **turn off cell phones and DO NOT TEXT MESSAGE** during class. Also turn off the keyboard “clicks” to your tablet devices. Furthermore, it is an embarrassment to you and wastes your time to come to class, put your head down on your desk, and fall asleep. It is highly possible that someone will be kicked out of class this semester for disrupting the educational pursuits of the other members of the class. Do not be this student. Once kicked out, you will not be allowed back into class without first discussing the matter with me in my office as well as writing a letter to the class and apologizing for your disruption. Finally, **AVOID** being a distraction to other students at all costs. You **DO NOT** have the right to disrupt another student's pursuit of knowledge.

Library Use: Students are encouraged to use the library as I have requested A&P Revealed to be placed on reserve there for library use only. Many online physiology resources are also available. Check youtube for lectures, animations etc, regarding particular physiology concepts.

Final word on your final grade, my job is very easy when the final exam is over. Your final grade will directly reflect the grade you **EARNED**. Some students will miss a higher grade by only a few points. Your grade is **YOUR** grade. I spend 15 weeks trying to help you learn the material and earn all the points you can. The standard for your grade is the points that you have accrued, no more, no less.

The instructor reserves the right to alter the grade-determination method and following schedule if necessary.