Syllabus for BIOL-7: Human Physiology

Course Information

Semester & Year: Spring 2021
Course ID & Section #: BIOL-7-V0248 and BIOL-7-V0249
Instructor's name: Gabriel Holtski and Wendy Riggs
[if synchronous] Day/Time of required meetings: No synchronous required meetings
[if in-person] Location: Online
[if needed] Number of proctored exams: 1 (HAPS Exam at the end of the semester)
Course units: 4

Instructor Contact Information

Office location or *Online: Online
Office hours: To be determined
Phone number: 707-476-4227
Email address: gabriel-holtski@redwoods.edu and wendyk-riggs@redwoods.edu

Catalog Description

An organ system approach to the study of human physiology. Special emphasis is given to molecular and cellular mechanisms responsible for homeostasis. Labs include experiments on human subjects as well as computerized simulations of complex physiological processes. NOTE: This course is required for application to the nursing program.

Course Student Learning Outcomes *(from course outline of record)*

1. Illustrate how the integration and regulation of organ systems affects the maintenance of homeostasis in the human body.
2. Relate the key functions of major organ systems with the cellular and molecular mechanisms that enable these functions.
3. Analyze examples of disease processes and relate them to aberrations of normal physiological function.
4. Utilize the process of science to design and carry out physiological experiments, analyze resulting data, and relate results to physiological principles.

Prerequisites/co-requisites/ recommended preparation

Pre-reqs: BIOL-1, BIOL-6, CHEM-2 (or 1a)

Accessibility

College of the Redwoods is committed to making reasonable accommodations for qualified students with disabilities. If you have a disability or believe you might benefit from disability-related services and accommodations, please contact your instructor or Disability Services and Programs for Students (DSPS). Students may make requests for alternative media by contacting DSPS based on their campus location:

- Eureka: 707-476-4280, student services building, 1st floor
- Del Norte: 707-465-2324, main building near library
- Klamath-Trinity: 530-625-4821 Ext 103

During COVID19—DSPS will email approved accommodations for distance education classes to your instructor. In the case of face-to-face instruction, please present your written accommodation request to your instructor at least one week before the needed accommodation so that necessary arrangements can be made. Last minute arrangements or post-test adjustments usually cannot be accommodated.

Student Support

Good information and clear communication about your needs will help you be successful. Please let your instructor know about any specific challenges or technology limitations that might affect your participation in class. College of the Redwoods wants every student to be successful.

Admissions deadlines & enrollment policies

Spring 2021 Dates

- *Classes begin: 1/16/21*
- *MLK Jr. Birthday (all campuses closed): 1/18/21*
- *Last day to add a class: 1/22/21*
- *Last day to drop without a W and receive a refund: 1/29/21*
- *Census date: 2/01/21 or 20% into class duration*
- *Last day to petition to file P/NP option: 2/12/21*
- *Lincoln's Birthday (all campuses closed): 2/12/21*
- *President's Day (all campuses closed): 2/15/21*
- *Last day to petition to graduate or apply for certificate: 3/04/21*
- *Spring Break (no classes): 3/15/21 – 3/20/21*
- *Last day for student-initiated W (no refund): 4/02/21*
- *Last day for faculty-initiated W (no refund): 4/02/21*
- *Final examinations: 5/08/21 – 5/14/21*
- *Semester ends: 5/14/21*
- *Grades available for transcript release: approximately 5/31/21*

Inclusive Language in the Classroom

College of the Redwoods aspires to create a learning environment in which all people feel comfortable in contributing their perspectives to classroom discussions. It therefore encourages instructors and students to use language that is inclusive and respectful.

Setting Your Preferred Name in Canvas

Students have the ability to have an alternate first name and pronouns to appear in Canvas. Contact Admissions & Records to request a change to your preferred first name and pronoun. Your Preferred Name will only be listed in Canvas. This does not change your legal name in our records. See the Student Information Update form.

Canvas Information

If using Canvas, include navigation instructions, tech support information, what Canvas is used for, and your expectation for how regularly students should check Canvas for your class.
Log into Canvas at https://redwoods.instructure.com
Password is your 8 digit birth date
For tech help, email its@redwoods.edu or call 707-476-4160
Canvas Help for students: https://www.redwoods.edu/online/Help-Student
Canvas online orientation workshop: https://www.redwoods.edu/online/Home/Student-Resources/Canvas-Resources

Community College Student Health and Wellness

Resources, tools, and trainings regarding health, mental health, wellness, basic needs and more designed for California community college students, faculty and staff are available on the California Community Colleges Health & Wellness website.
Wellness Central is a free online health and wellness resource that is available 24/7 in your space at your pace.

Students seeking to request a counseling appointment for academic advising or general counseling can email counseling@redwoods.edu.

Emergency procedures / Everbridge

College of the Redwoods has implemented an emergency alert system called Everbridge. In the event of an emergency on campus you will receive an alert through your personal email and/or phones. Registration is not necessary in order to receive emergency alerts. Check to make sure your contact information is up-to-date by logging into WebAdvisor https://webadvisor.redwoods.edu and selecting 'Students' then 'Academic Profile' then 'Current Information Update.'

Please contact Public Safety at 707-476-4112 or security@redwoods.edu if you have any questions. For more information see the Redwoods Public Safety Page.

In an emergency that requires an evacuation of the building anywhere in the District:

- Be aware of all marked exits from your area and building
- Once outside, move to the nearest evacuation point outside your building
- Keep streets and walkways clear for emergency vehicles and personnel

Do not leave campus, unless it has been deemed safe by the campus authorities.

Student Support Services

The following online resources are available to support your success as a student:

- CR-Online (Comprehensive information for online students)
- Library Articles & Databases
- Canvas help and tutorials
- Online Student Handbook

Counseling offers assistance to students in need of professional counseling services such as crisis counseling.

Learning Resource Center includes the following resources for students

- Academic Support Center for instructional support, tutoring, learning resources, and proctored exams. Includes the Math Lab & Drop-in Writing Center
- Library Services to promote information literacy and provide organized information resources.
- Multicultural & Diversity Center

Special programs are also available for eligible students include

- Extended Opportunity Programs & Services (EOPS) provides services to eligible income disadvantaged students including: textbook award, career academic and personal counseling, school supplies, transportation assistance, tutoring, laptop, calculator and textbook loans, priority registration, graduation cap and gown, workshops, and more!
- The TRiO Student Success Program provides eligible students with a variety of services including trips to 4-year universities, career assessments, and peer mentoring. Students can apply for the program in Eureka or in Del Norte
- The Veteran's Resource Center supports and facilitates academic success for Active Duty Military, Veterans and Dependents attending CR through relational advising, mentorship, transitional assistance, and coordination of military and Veteran-specific resources.
- Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821

Biology 7 – Human Physiology

Spring 2021, online
(Last updated 1/6/21)

Instructor Information

Wendy Riggs wendyk-riggs@redwoods.edu Office: 476-4227 Cell: 496-0661
Office: SC 216C Office Hours: Complete Canvas quiz to determine hours (additional hrs available)

Dr. Gabriel Holtski gabriel-holtski@redwoods.edu

Course schedule

You can access the tentative course schedule here, but all the weekly content will be nicely organized for you in the Canvas modules. **There are no required synchronous meetings in this online class.** (However, we will meet up- and record activities- at least twice a week, at a time that works for as many people as possible.)

Required materials

Textbook

It is my opinion that the cost of materials for a course should NOT exceed the cost of the course itself. That is why there is flexibility on the required materials lists for my courses. Let me know if you have any questions about this.

Also note that I made ALL textbooks REQUIRED in the CR bookstore. However, you only need ONE.

There are many ways you can purchase the required materials. Choose the one that seems best for you.

1. **A textbook is required for this class.** However, you have two textbooks to choose from. You do NOT need both. But please take a look at all the required materials before making your decision. The Silverthorn text can be bundled with the required lab software, PhysioEx.
    a. **Option 1- Human Physiology: An Integrated Approach, 8th edition by Dee Unglaub Silverthorn**
    This is a phenomenal physiology text. The images are excellent, the explanations are clear, and the content is comprehensive.
        i. Purchase *any edition of the text* on Amazon https://smile.amazon.com/s?k=silverthorn+human+physiology&ref=nb_sb_noss
        ii. Purchase the text in varied formats (with or without the Mastering A&P study tool) directly from Pearson. Before making purchase decisions, you may want to check out the PhysioEx requirements, because there are some text/physioex packages available. https://www.pearson.com/store/p/human-physiology-an-integrated-approach/P100000734798?tab=for-teachers
            1. eText only ISBN 9780135212912 ($44.99)
            2. Hardcover book ISBN 9780134605197 $197.32
            3. Loose leaf book only ISBN 9780134704203 $127.99
    b. **Option 2- Anatomy and Physiology: OpenStax**
    This is an excellent anatomy and physiology text. It is an Open Educational Resource, which means you can access the content for free. Because it covers both Anatomy and Physiology, you'll have to sort

through the content a bit more than if you just purchased the Physio book above. But the price point is VERY compelling. Here are your options:

   i. Access the book totally free at https://openstax.org/details/books/anatomy-and-physiology. There are many ways to consume the text, including a PDF download.
   ii. Purchase a hard copy of the text (in color, ISBN 978-1-938168-13-0) at https://smile.amazon.com/Anatomy-Physiology-Kelly-Young-dp-1938168135/dp/1938168135/ref=mt_other?_encoding=UTF8&me=&qid=1595194168

2. **TopHat Pro Subscription (4 months)** allows us to interact with the content in a dynamic manner.We'll use a set of TopHat questions to guide asynchronous discussions for each lecture. You can purchase the subscription from TopHat for $30 for 4 months (https://tophat.com/pricing). I couldn't figure out how to put it in the bookstore.
   a. The subscription costs $30 for the semester. You can participate in the weekly TopHat activities using Apple or Android smartphones and tablets, laptops, or via text message. Register for our course by visiting our course website: https://app.tophat.com/students/739002 (Note: the **Course Join Code for Spring 2021 is 739002**.)
   b. Should you require assistance with Top Hat at any time, please contact their Support Team directly by way of email (support@tophat.com), the in app support button, or by calling 1-888-663-5491. They are awesomely helpful.

Technology

- Reliable and updated computer (preferable, but let me know if you have issues with this).
- Almost all required course activities can be completed with a Chromebook, except for the HAPS exam at the end of the semester. Please let me know if this is going to be a problem.
- Most computers and internet providers are adequate for course success. Speedy internet access (cable, DSL, or satellite) is recommended because video lectures are a required multimedia component of the course.
- Each week you will upload a very brief video of yourself answering a reflective question about your learning during the week. You must have a working Webcam or cell phone that can take video to do this.

Other items you might find helpful

- Colored pencils or pens for note taking.
- Sticky notes (many colors) and/or 3x5" index cards (any color) for lab and class activities.
- Three ring binder or spiral notebook for your notes.

Canvas

All content is available to you in Canvas, the official Learning Management System (LMS) of College of the Redwoods.

1. To log into Canvas, you will need to go to https://redwoods.instructure.com.
   a. Your login is the same as your webadvisor login.
   b. Unless you have changed it, your password is your 8 digit birth date.
   c. For tech help, email its@redwoods.edu or call 476-4160.
2. Because this is an online class, you should plan on logging into Canvas ALMOST EVERY DAY. You can access an incredible number of resources through Canvas…so get used to it now.
3. All content is organized in weekly MODULES. Each module has the same structure and is set up by DUE DATE.
4. If there is content you are looking for but can't find, PLEASE email me ASAP. There are probably other folks looking for the same thing (and even though I am really amazing, I'm not perfect (YET) and I sometimes forget to publish things).
5. New modules will show up at the BOTTOM of your module list. All new modules will be published on Friday or Saturday of the current week. All old modules will remain available for you throughout the course.

Designating pronouns in Canvas

You can designate pronouns to follow your name in Canvas. Here's how:

1. Log into Canvas.
2. Click on Account (top left menu bar thing).
3. Choose Settings from the options that appear.
4. Click on Edit Settings (to the right).
5. One of the new options in the Settings is a pronoun option dropdown.

Philosophy of learning

Active Learning in an Online Class

Learning happens when your brain changes. If your brain does not actually change the way neurons communicate with each other, then you did not learn anything. And the best way to **change your brain** is to **DO SOMETHING**. This is the fundamental assumption that informs the methods, or pedagogy, I use in all my classes, including the online classes.

Research about how people learn (or how they change their brains!) overwhelmingly indicates that the most successful teaching methods get students to be **active participants** in the learning process. Collaboration and problem solving are just a few ways to engage fully in your own learning. To facilitate active learning, my job moves away from passive delivery of content (usually via lecture) and toward the creation of engaging activities that motivate YOU to take charge of, and fully participate in, your own educational processes.

You might imagine that collaboration and ACTIVE LEARNING can't happen in an online class. This is not true! However, just like in a face to face class, YOU are responsible for how ACTIVE you choose to be. In this course, you will work in lab groups to facilitate collaboration, you will participate in weekly "Muddy-Fun" discussions, and you will take quizzes to make sure you're keeping up with the content.

One of the best ways to become an active learner is to TALK about what you are learning because another interesting fact about learning is that learning is social. In my face to face classes, you TALK to your classmates, because engaging with each other IS engaging with the content. I highly encourage you to find opportunities to talk to each other in this online course, though because of the asynchronous nature of online classes, this communication is often written. So do not be shy when participating in the weekly activities in the class. The more you engage with each other, the more you engage with the content. In a class like this, the more people you are connected to, the more opportunities you will have to really cement the material into your new neural networks! So please don't be shy. Form study groups and lecture groups and lab groups and find people to work with. Reach out to each other and take advantage of this important part of the process. You'll be happy you did.

Learning is a PROCESS

Biology classes are challenging. There is a TON of new content and this includes not only new vocabulary, but also new CONCEPTS. My goal is that you TRULY LEARN the material, and this requires you to not only memorize new terms, but also THINK about what those terms MEAN. But here is the awesome part. LEARNING IS A PROCESS. My courses are set up to offer plenty of opportunities to capitalize on learning opportunities and IMPROVE YOUR UNDERSTANDING OVER TIME (and consequently, your grade). Please embrace a GROWTH MINDSET in this class. Take feedback and grades as opportunities to improve yourself. Set out to truly UNDERSTAND the material, and your grade will reflect that understanding. And I will do everything I can to help you along the way!

Course assessment

Assignments

- Weekly Check-in (5% of total grade)
  Each week (due Sunday night by 11:59pm), you will have some sort of check-in assignment. This is just an easy way for us to stay connected, which is a really important ingredient that helps me support your success in this class. There are 3 ways to earn your points:
  a. Record a simple (and very BRIEF- 1 minute or less) video in which you answer some sort of question posed by your instructor.
  b. Attend one of the online office hour activity sessions. (Please attend at least one office hour before the first exam.)
- Lecture Activities (10%)
  Content in the class is delivered through video lectures, and each one is accompanied by a series of tasks. Here's how the activities will work:
  a. **Part 1: Watch the lecture and take notes (complete this whenever it fits into your life)**
  Watch the video lecture (posted in a discussion forum in Canvas). Take notes and compile them in your "External Brain," which is due on the day of each exam. This is where content delivery happens!
  Grading: Create an "External Brain" with notes from each lecture/lab. This will be graded 4 times in the semester and is due with each exam.
  b. **Part 2: TopHat questions (due by 10pm on Mon or Wed)**
  Visit Top Hat and complete the 10 questions about that lecture. Answer the questions as many times as you want, and feel free to discuss the questions with your classmates in the discussion forum.
  Grading: Full credit (5 points) for completion.
  c. **Part 3: Contribute to the Canvas discussion (due by 11:59pm on Tues or Thurs)**
  By 7am on Tues or Thurs, I will review the Top Hat responses and post comments for each question, either providing kudos and rah rah (good work, team), or feedback and suggestions for further discussion. I will post these videos into the discussion forum, within an appropriately labeled thread. Then, you'll contribute to the discussion at least 4 times in a meaningful and constructive way. There are 4 types of posts, and you can earn up to 10 points.
  Grading: Up to 10 points for 4 meaningful comments.
    - **Value added post** (4 points)
      This post includes "value added" resources such as: video explanations, images or links, helpful resources with a description, practice exam questions, etc.
    - **Metacognition** (3 points)
      This post describes your thinking about the question and how your understanding/learning changed over time.
    - **Community** (2 points)
      This post connects to a classmate in a meaningful manner and helps build community.
    - **One more** (1 point)
      Anything goes for this last post. Just contribute something meaningful.
  d. **Part 4: Complete TopHat again (due by 11:59pm on Tues or Thurs)**
  Now return to Top Hat and complete the same 10 questions about that lecture. But this time, you'll only get points for correct answers.
  Grading: 5 points for 80% correctness.
- Weekly Online Quizzes (5%)
  Administered through Canvas, these weekly quizzes (usually 3) will cover lab and lecture material for the week. You can take them as many times as you want and we will keep your high score. Quizzes mimic the exam format, except they are smaller. Each quiz will cover one thing (either a lecture or a lab). Most quizzes are 5 questions long, timed (1 min/question), and pull from a bank of questions, so each time you take the quiz, you'll get a different set of questions on the topic. All quizzes are due Sunday night by 11:59pm, but you can continue taking them for practice, even after the due date.

- Labs (10%)
  Each week, there will be a laboratory assignment to complete. Each lab will include some sort of task (usually the completion of PhysioEx exercises) as well as a discussion forum. Lab assignments are always due on Fridays by 11:59pm. I'm pretty sure you can access the lab activities here (for an example): https://media.pearsoncmg.com/bc/bc_0media_ap/physioex/10/ex1/act1/
- Case studies (20%)
  Over the entire semester, you will participate in 4 case studies. Each case will have 3 parts.
  a. Part 1: Case study worksheet and Canvas discussion (brainstorming)
     In this part of each case study, you'll complete a worksheet and engage in a discussion with your group about the case study. This will be the brainstorming phase of the project.
  b. Part 2: Canvas discussion (rough draft)
     In this part, you'll post a rough draft of your analysis of the case study. You will include a list of the resources you consulted for the assignment. Then you'll read and comment on at least 2 other students' essays in your group.
  c. Part 3: Canvas assignment (final draft)
     In this part, you'll submit a final draft of your essay to Canvas. This will be critically graded by your instructor.

  Initial posts for case study assignments are always due on Saturdays by 11:59am, and final posts by 11:59pm.
- Midterm Exams (50%)
  There will be four midterm exams throughout the semester that cover material from both lecture and lab, as well as an optional comprehensive final exam. (Note- if your score on the comprehensive final is higher than ANY of your other midterm scores, your lowest midterm can be replaced with the final! Sweet!)
  a. Each exam has 2 parts.
     - The first part mimics the quizzes and is all multiple choice, but you only have 2 attempts. We will average your score on the two attempts (though if your second attempt is higher, we'll keep that score).
     - The second part offers only 1 attempt, but includes a pile of written short answer/essay questions, also timed. These will also be pulled from a question bank.
     - You may use your external brain on the midterm exams. Please do not use the internet or other humans on these assignments.
  b. There will be a required, comprehensive multiple choice final. It will count toward your grade, but if it is higher than any midterm, you can use that score to replace ONE midterm!
  c. There will also be a required, comprehensive, proctored HAPS exam covering both anatomy and physiology, to be taken at the end of the semester. By taking the HAPS exam, you will have the opportunity to earn up to 10 EXTRA CREDIT POINTS in this grading category.

A typical week

You will definitely want to take the time to plan how you'll complete the weekly activities. To help you do this, I've put together a typical week. With the exception of the periodic exams, this pattern will remain the same throughout the semester. Please use this to make your own plan for how you'll complete the course requirements each week.

- By **Monday (10pm):** Watch the first video lecture of the week and answer the TopHat questions
- By **Tuesday (11:59pm):** Participate in the lecture discussion and answer the TopHat questions again
- By **Wednesday (10pm):** Watch the second video lecture of the week and answer the TopHat questions
- By **Thursday (11:59pm):** Participate in the lecture discussion and answer the TopHat questions again
- By **Friday (11:59pm):** Complete the lab activities and participate in the lab discussion forum
- By **Saturday (11:59pm):** Complete the week's case study task (with initial post due by 11:59**am**); complete all the weekly quizzes and video check-in's
- By **Sunday (11:59pm):** Rest, study, prepare for next week

Grades

The purpose of grading is to get an idea of how well you are mastering the material in this course. They help you pinpoint troublesome topics that might trip you up in future courses. There are a billion grades in the

gradebook, which means you have a billion opportunities to earn points and improve your grade. Everything in the gradebook is driven by your performance on the assessments in the course…and nothing else. In other words, it doesn't matter how much I love you (and I DO love you!)…the grades you EARN on assignments will translate into the grade you EARN in the class.

I will use the following scale to determine the letter grade you earn in this class.

100.0 – 93.00% = A	89.99 – 87.00% = B+	79.99 – 77.00% = C+	69.99 – 60.00% = D
92.99 – 90.00% = A-	86.99 – 83.00% = B	76.99 – 70.00% = C	< 59.99% = F
	82.99 – 80.00% = B-		

One more thing. I don't bump grades higher than the exact percentage you earn. This means that there is no rounding up (or down, glory days). Since grade-boundaries are by definition arbitrary, there is no good rationale for letting the boundaries slide; there will always be a cut-off and there will always be someone who is close, but not quite there. Be grateful for the BILLION opportunities you have to earn points as outlined in this syllabus. The grade reported in Canvas is the grade you will earn in the course.

Course policies

Drop policy

It is really important that you complete ALL activities in the first week of class to make sure you aren't dropped from the course. However, sometimes it can be tricky to get oriented to the requirements and patterns in a brand new online class. So take some deep breaths, and if you plan to stick out the class, just let me know what's up. I'm delighted to work with you as we (all!) find our grooves.

Late work policy

I understand that sometimes you'll miss a deadline (yes, I'm sure I will too). I've carefully set up the deadlines to help pace you through the content. I will, without question, always accept late homework before I get it graded. In other words, if I've not yet returned a score for your work, then you can still turn it in for full credit! That said…it is extremely easy to get behind, and then it can be quite challenging to catch up. Our goal in this class is to facilitate TRUE LEARNING. Human physiology is one of the classes you'll absolutely need to be successful in your future programs in healthcare, so we don't want to take any shortcuts here. Do your best to keep up with our schedule, but if you need some flexibility, just reach out and we'll come up with a plan.

Confirming your presence in the online classroom

Canvas is our classroom. As soon as possible, please log in to our course in Canvas and begin completing the tasks in "Module 0: Let's Roll," to ensure you keep your spot in the online classroom. Doing so will confirm your enrollment in the course and prevent you from being dropped as a "no show."

Communication

If you have a question or concern, please Please PLEASE get ahold of me. I am very available to help you, as long as you are polite and respectful. Here are some guidelines to follow:

- **Might your question benefit other people in the class?** Then post it to the "Questions for Riggs?" discussion board in the Canvas Modules. If you are concerned that I might forget to check the board (this is a legit concern), feel free to email me a reminder (wendyk-riggs@redwoods.edu)
- **Is your message private?** Send me an email or a message through Canvas (click on INBOX in the left menu)
- **Is your message urgent?** You can text or call my cell phone, but unless we've been texting already, please identify yourself by name. I will do my best to get back to you ASAP.
- **Always be polite.** I know we are all working really hard right now, and honestly, most of us are operating inside unusually challenging circumstances. Let's work hard to be open and honest, to advocate for ourselves, and to treat each other with respect and regard. I really look forward to working with you.

Academic Integrity

There is ZERO tolerance for any form of academic dishonesty, including cheating, helping others to cheat, falsification of data, or plagiarism. However, I enthusiastically encourage you to work together in this class on many activities. If you are wondering about whether or not something would be considered cheating, please please please ask me! Let's decide together. I know you want to truly learn the content of this class, and "grades" tend to be the way we've always quantified someone's learning. We want your grade to accurately reflect your learning, and if you don't do your own work, then this won't happen. So let's be really clear and open about this part of our online class.

(Now...I do have to include the following information in my syllabus, for legal reasons. But please know that I trust you and am confident in your success this semester.) Academic dishonesty in any form WILL result in a formal report and details will be submitted to the appropriate authorities. Refer to the Student Code of Conduct and Disciplinary Procedures at http://www.redwoods.edu/District/Board/New/Chapter5/Ap5500.pdf for more information about CR policies.

Final Thoughts

Human physiology is a challenging course. There is a lot of new information and the course has a lot of moving parts to ensure you GET IT. It can be a bit overwhelming, if you aren't on top of it. To help you with this challenge, I have compiled a list of suggestions that will help you learn the content. Please keep in mind that you probably won't have time to carry out every single suggestion. So choose from the list of suggestions below and get organized. Identify the grade you'd like to earn in this class and make a clear plan for the semester that will enable you to meet your goal. **Stick to your plan**, maximize your efficiency, and make the most of your time in this course. Physio is a difficult course, but the material is fascinating and easily applicable to your life and the careers you are interested in. The effort you make toward true understanding will be totally worth it.

Here are a couple resources that might be helpful:

- 20 minute video entitled: "Study Smarter, Not Harder: Ten Tips for Studying Physiology"
- 4 week long class (FREE) through Coursera: "Learning How to Learn"

Advice from Riggs

1. Study physiology every single day. Some suggestions...
    1. Watch the video lectures and TAKE GOOD NOTES. Then rewrite your notes and answer the EB questions within 24 hours of class.
    2. Explain physiology topics to your dog, friends, kids, and neighbors.
    3. Make note cards, and carry them around with you, everywhere you go.
    4. Draw lots of pictures and hang them on the fridge.
2. **Be conscious during video lectures. Make lists of your questions and bring them to class. When in class, interact, sit in the front, and holler when you don't understand something.**
3. Be diligent and disciplined in lab. It might be tempting to skate through lab, take short cuts, finish early, and essentially be a slacker. Don't! Labs are designed to offer hands-on experiences with the complex materials presented in lecture. Take advantage of this opportunity to improve your learning.
4. Keep detailed notes in your External Brain. This will help all aspects of your understanding.
5. Stay ahead of the game. Don't miss lectures or labs, and utilize the study aids offered through Canvas.
6. Form study groups with your classmates, online and in person. Hang out, eat fun food, and talk physio 1-2x/week.
7. Practice writing the answers to short essay questions. Have your classmates read your answers and grade them. Practice being CLEAR, CONCISE, PRECISE and CORRECT.
8. Make up practice exams based on the External Brain questions. Share them with your classmates!

9. Get started on the integration project EARLY…and do GOOD WORK on all benchmarks. They are designed to help you build a HIGH QUALITY end product. Take advantage of the feedback and opportunities to learn!
10. If the going gets tough, READ your textbook! IT WILL HELP (especially if you use it to answer tough questions).
11. And if the going is still tough, buckle down and repeat after me: "I can do anything for 16 weeks." You CAN do this class. All you need to do is find the time to make it happen.
12. Finally…embrace the GROWTH MINDSET. You deserve it!

Advice from previous online students

In Fall 2020, students created a Padlet of advice for future online physiology students. Check it out!

Advice from previous face-to-face students

- Watch the lectures and try to immediately review the notes and complete the questions. Double time the lectures repeatedly (not necessarily right before the exam). Right down the quiz questions and answers in EB, take class notes (clicker questions). When studying double time lecture, then reread notes, EB questions, quiz, and class notes until you get it.
- Read all test questions carefully.
- If the Flip lectures don't work for you, watch the lectures and take notes, but then go through the book and take notes that are helpful to you.
- Be prepared to work your ass off…
- I would suggest students to watch every video, and take every opportunity they can to challenge what they know or watch. This class wasn't difficult conceptually, however the sheer amount of information made it challenging. In fact, I wasn't honestly expecting this class to be too difficult but it prove otherwise (ha).
- Be willing to ask questions, Riggs is a great teacher and I guarantee that she will answer them to the best of her ability, even if it is not within her scope.
- I didn't use the book, so I can't really commentate on how effective it would be. But I did just fine in this class without it, so that just goes to show you that good notes on Wendy's material is essential to doing well in this class
- WATCH THE VIDEOS! You know that lecture handout she just gave you? It's not for show, USE IT! And use it *NOW*, not just before the exam hoping it'll magically jump into your brain. It won't work. I tried.
- Stay on top of the lectures and do the external brain questions immediately following the lab. Don't get behind or procrastinate (else you may find yourself staying up until the wee hours of the morning finishing last minute benchmarks and watching lecture half asleep in double-time). Also take the lecture opportunity to ask lots of questions to clarify anything that you might not understand.
- Consult your anatomy notes often to keep a clear picture of how the structure and function relate. Watch videos from other sources, too. There are some amazing computer-graphic simulations that show how things work in ways a textbook can't.
- Always flip the lectures so you can take advantage of class time with Riggs. Take the time you need, and ask the questions you have to understand the material.

Sp21 Online Physiology Schedule (Holtski-n-Riggs)

Revised: 1/12/21 9:23

The course syllabus is also found online.

As of 1/10/21, this schedule is PRETTY SOLID...we think...

Essential Question: How do different parts of the human body communicate?

		DATE		Video Lecture + Top Hat Activities due 11:59pm	Reading: Silverthorn	Reading: OpenStax	Laboratory due 11:59pm	Case Studies due 11:59pm
1	M	1/18	0	Orientation *(TopHat due, 10pm)*				
	T	1/19		*(Canvas discussion due)*				
	W	1/20	1	Homeostasis *(TopHat due, 10pm)*	1, 6	1, 26.1		
	Th	1/21		*(Canvas discussion due)*				
	F	1/22					Lab 1: Homeostatic Pathways	
	Sat	1/23		***Weekly quizzes and check-in due 11:59pm***				
	Sun	1/24		**REST, STUDY, PREPARE FOR NEXT WEEK**				
2	M	1/25	2	Fluid compartments and osmosis *(TopHat due, 10pm)*	3, 5	3.1		
	T	1/26		*(Canvas discussion due)*				
	W	1/27	3	Communication and pathways *(TopHat due, 10pm)*	6	1.5, 4.2, pg 88		
	Th	1/28		*(Canvas discussion due)*				
	F	1/29					Lab 2: PhysioEx (Ex 1- Osmosis)	
	Sat	1/30		***Weekly quizzes and check-in due 11:59pm***				Case 1: Group Discussion
	Sun	1/31						
3	M	2/1	4	The endocrine system *(TopHat due, 10pm)*	7	17.1-3, 17.10		
	T	2/2		*(Canvas discussion due)*				
	W	2/3	5	The action potential *(TopHat due, 10pm)*	8	12.4, 12.5		
	Th	2/4		*(Canvas discussion due)*				
	F	2/5					Lab 3: Endocrine Rats	
	Sat	2/6		***Weekly quizzes and check-in due 11:59pm***				Case 1: Rough Draft
	Sun	2/7						
4	M	2/8	6	Sensory receptors and the afferent NS *(TopHat due, 10pm)*	10	14.1		
	T	2/9		*(Canvas discussion due)*				
	W	2/10						
	Th	2/11		**EXAM 1 (and EB 1): due Sat 2/13 by 11:59pmpm**				
	F	2/12		**Lincoln's Bday (HOLIDAY)**			Lab 4: Afferent NS	
	Sat	2/13		***Weekly quizzes and check-in due 11:59pm***				Case 1: Final Draft
	Sun	2/14						

Essential Question: How does the human body DO SOMETHING?

		DATE		Video Lecture + Top Hat Activities *Check due dates in Canvas*	Reading *Silverthorn*	Reading *OpenStax*	Laboratory *Discussion and lab reports due 11:59pm*	Case Studies *Check due dates in Canvas*
5	M	2/15		**President's Day (HOLIDAY)**				
	T	2/16						
	W	2/17	7	Autonomic NS *(TopHat due, 10pm)*	11	15.2-3, 17.6		
	Th	2/18		*(Canvas discussion due)*				
	F	2/19					Lab 5: Process of science, reaction time, and data analysis	
	Sat	2/20		***Weekly quizzes and check-in due 11:59pm***				
	Sun	2/21						
6	M	2/22	8	Skeletal muscle *(TopHat due, 10pm)*	12	10.2, 10.3		
	T	2/23		*(Canvas discussion due)*				
	W	2/24	9	Muscle biomechanics *(TopHat due, 10pm)*	12, 13	10.4, 10.5, 10.6		
	Th	2/25		*(Canvas discussion due)*				
	F	2/26					Lab 6: PhysioEx (Ex 2- Muscle)	
	Sat	2/27		***Weekly quizzes and check-in due 11:59pm***				Case 2: Group Discussion
	Sun	2/28						
7	M	3/1	10	Cardiac muscle *(TopHat due, 10pm)*	14	10.7, 19.2, 19.4		
	T	3/2		*(Canvas discussion due)*				
	W	3/3	11	Cardiac cycle *(TopHat due, 10pm)*	15	19.2, 19.3, 19.4		
	Th	3/4		*(Canvas discussion due)*				
	F	3/5					Lab 7: PhysioEx (Ex 6- Heart rate)	
	Sat	3/6		***Weekly quizzes and check-in due 11:59pm***				Case 2: Rough Draft
	Sun	3/7						
8	M	3/8	12	Blood pressure *(TopHat due, 10pm)*	15, 16	19.4, 20.2		
	T	3/9		*(Canvas discussion due)*				
	W	3/10						
	Th	3/11		**EXAM 2: due Sun 3/14 by 6pm**				
	F	3/12					Lab 8: PhysioEx (Ex 5- BP)	
	Sat	3/13		***Weekly quizzes and check-in due 11:59pm***				Case 2: Final Draft
	Sun	3/14						

SPRING BREAK

Essential Question: How does the human body regulate homeostasis of the extracellular fluid?

		DATE		Video Lecture + Top Hat Activities *Check due dates in Canvas*	Reading *Silverthorn*	Reading *OpenStax*	Laboratory *Discussion and lab reports due 11:59pm*	Case Studies *Check due dates in Canvas*
9	M	3/22	13	Capillary exchange and hemostasis *(TopHat due, 10pm)*	15-16	20.3, 20.4?, 21.1		
	T	3/23		*(Canvas discussion due)*				
	W	3/24	14	Breathing *(TopHat due, 10pm)*	17	22.3		
	Th	3/25		*(Canvas discussion due)*				
	F	3/26					Lab 9: PhysioEx (Ex 11- Blood typing)	
	Sat	3/27		***Weekly quizzes and check-in due 11:59pm***				Case 3: Group Discussion
	Sun	3/28						
10	M	3/29	15	Gas exchange *(TopHat due, 10pm)*	18	18.3, 22.4, 22.5		
	T	3/30		*(Canvas discussion due)*				
	W	3/31	16	The nephron *(TopHat due, 10pm)*	19	25.4, 25.5-7, 25.8		
	Th	4/1		*(Canvas discussion due)*				
	F	4/2					Lab 10: PhysioEx (Ex 7- Breathing)	
	Sat	4/3		***Weekly quizzes and check-in due 11:59pm***				Case 3: Rough Draft
	Sun	4/4						
11	M	4/5	17	Filtrate reabsorption *(TopHat due, 10pm)*	19	25.6		
	T	4/6		*(Canvas discussion due)*				
	W	4/7	18	Fluid balance *(TopHat due, 10pm)*	20	25.1, 25.9, 25.10, 26.1-4		
	Th	4/8		*(Canvas discussion due)*				
	F	4/9					Lab 11: PhysioEx (Ex 9 and 10- Kidneys)	
	Sat	4/10		***Weekly quizzes and check-in due 11:59pm***				Case 4: Final Draft
	Sun	4/11		**EXAM 3: due Tues 4/13 by 11:59pm**				

Essential Question: How does the human body acquire and manage energy?

		DATE		Video Lecture + Top Hat Activities *Check due dates in Canvas*	Reading *Silverthorn*	Reading *OpenStax*	Laboratory *Discussion and lab reports due 11:59pm*	Case Studies *Check due dates in Canvas*
12	M	4/12						
	T	4/13						
	W	4/14	19	Innate immunity *(TopHat due, 10pm)*	24	18.4, 21.2		
	Th	4/15						
	F	4/16					Lab 12: Covid Case Study Lab	
	Sat	4/17		***Weekly quizzes and check-in due 11:59pm***				
	Sun	4/18						
13	M	4/19	20	Acquired immunity *(TopHat due, 10pm)*	24	18.6, 21.1, 21.3, 21.4		
	T	4/20		*(Canvas discussion due)*				
	W	4/21	21	Digestion *(TopHat due, 10pm)*	21, 22, 25	17.9, 23.2, 23.7, 24		
	Th	4/22		*(Canvas discussion due)*				
	F	4/23					Lab 13: PhysioEx (Ex 8- Digestion)	
	Sat	4/24		***Weekly quizzes and check-in due 11:59pm***				Case 4: Group Discussion
	Sun	4/25						
14	M	4/26	23	Thyroid function *(TopHat due, 10pm)*	22, 23	17.4-5, 24, 6.6, 6.7 (Ca)		
	T	4/27		*(Canvas discussion due)*				
	W	4/28	24	Reproduction *(TopHat due, 10pm)*	26	27.2, 17.8		
	Th	4/29		*(Canvas discussion due)*				
	F	4/30					Lab 14: PhysioEx (Ex 4- Hormones)	
	Sat	5/1		***Weekly quizzes and check-in due 11:59pm***				Case 4: Rough Draft
	Sun	5/2		**EXAM 4: due by Tuesday 5/4 11:59pm**				
15	M	5/3						
	T	5/4		**EXAM 4: due date TBD**				
	W	5/5						
	Th	5/6		**HAPS Exam opens**				
	F	5/7						
	Sat	5/8		***Weekly quizzes and check-in due 11:59pm***				Case 4: Final Draft
	Sun	5/9						

Finals Week

		DATE		
16	T	5/11		HAPS Exam Due (Required)
	W	5/12		Final Exam (optional)

** Schedule is subject to change**