# Syllabus for BIOL-7: Human Physiology

## Course Information

Semester & Year: Fall 2021
Course ID & Section #: BIOL-7-V2357, BIOL-7-V2259, BIOL-7-V2260
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: Will be posted on the home page in Canvas every week
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 (or 3), 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

If you are taking online classes 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.

# Biology 7 – Human Physiology

Fall 2021, online
*(Last updated 7/26/21)*

# 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 Office Hours: TBD


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# 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.

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# 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.

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

1. **Textbook: 2 options.** 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 directly from Pearson. (Note: All Pearson products include the option of adding a study tool called "Mastering" to the purchase. Mastering is described as "A digital platform that replicates the office-hour experience by providing answer-specific feedback, study resources, and practical learning experiences." It is not required, but you might find it helpful…if you have time to use it.)
            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 online book totally free from OpenStax. There are many ways to consume the text, including a PDF download.
ii. Purchase a hard copy of the text for about $50 (in color, ISBN 978-1-938168-13-0) from Amazon.

2. **Poll Everywhere (free for you)** allows us to interact with the content in a dynamic manner. We'll use a set of Poll Everywhere questions to guide asynchronous discussions for each lecture. We have purchased the subscription for you, so all you need to do is create an account. You can create an account by:
   a. following the instructions emailed to your CR email account from Poll Everywhere (on 8/15/21), or
   b. clicking on this link and following the instructions. (Note- if you join this way, please use your CR email address to register.)

   Please let us know if you have questions.
3. **LT Sensors (≈$30/semester)** will enable us to do 5 very robust data collection and analysis labs in our online class. We are extremely excited about this opportunity. Our first LT lab happens during Week 4, so we have lots of TIME to get things figured out. However, if you want to get this all done now, you can purchase your LT subscription here. In addition to purchasing access to LT, you will need to create an account with them. We'll send you an email with those instructions. Then you'll be able to log into ltlogin.com.

# Technology

- Reliable and updated computer (preferable, but let us 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 us 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.
- We encourage video communication in our online class. Sometimes you will upload a very brief video of yourself answering a reflective question about your learning during the class. You'll need 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 studying.
- Three ring binder or spiral notebook for your External Brain.
- Join our Peer Tutoring for Biol and Chem Canvas site. Just fill out this form and we'll add you in. This is not a class, there is no cost, and you are not obligated to participate in any way. We just want you to have access to resources!

# 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 (MM/DD/YYYY).
   c. You can get tech help directly from Canvas by visiting Canvas Help for Students. Just click on "contact support" in the top right corner to chat with a Canvas support human.
   d. You can also get help from CR by emailing its@redwoods.edu or calling 707-476-4160.
2. You can get additional help with online learning at https://www.redwoods.edu/online.
3. Because this is an online class, you should plan on logging into Canvas ALMOST EVERY DAY. One of the most valuable resources is access to your classmates and instructors. We're all in this thing together, and Canvas is our classroom.
4. All content is organized in weekly MODULES. Each module has the same structure and is set up by DUE DATE. We will try to be organized and consistent, but if there is content you are looking for but can't find, PLEASE email us ASAP. There are probably other folks looking for the same thing.

If you want extra help with Canvas or computers, we also have a couple of really nice (and free!) non-credit courses you can take. Look for these on WebAdvisor.

- **EDUC-203: Getting Started in Online Classes with Canvas**
  A course preparing students to be effective learners in an online environment. This course will emphasize best practices in online learning, internet etiquette, and the effective use of the Learning Management System. It is intended for students taking an online course for the first time or for those in need of an online refresher. This course also serves as a great introduction to other software used in the workplace.
- **EDUC-207: Getting Started in Online Classes with Computers**
  A course in basic computer skills development designed for students who have little or no experience using a computer. Topics include fundamental components of computer and program operation such as an introduction to internet usage, MyCR, email, and file system management and navigation.

## 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.

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# 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, we use in all our classes, including the online classes.

Research about how people learn (or how they change their brains!) overwhelmingly indicates that the most successful teaching methods inspire 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, the job of your instructors 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 are harder 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 lecture 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 our 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. Our 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. Our 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 we will do everything we can to help you along the way!

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# Course assessment

## Assignments

- Weekly Check-in (5% of total grade)
  Each week (due Saturday 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. Connect with an instructor in Pronto, our super amazing (and easy) chat tool.
  c. Attend one of the online office hour activity sessions. (We really encourage you to 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 before doing the other work)**
  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: PollEverywhere questions (due by 5am on Tues or Thurs)**
  Answer the PollEverywhere questions found in the video lecture assignment. Answer the questions as many times as you want, and feel free to discuss the questions with your classmates in the discussion forum. You will want to do this soon after you watch the video lecture.
  *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 PollEverywhere responses and populate the discussion forum, either providing kudos and rah rah (good work, team), or feedback and suggestions for further discussion. Then, you'll contribute to the discussion 3-4 times in a meaningful and constructive way. There are 3 kinds of posts, and you can earn up to 13 points (including 3 possible extra credit points).
  *Grading: Up to 13 points for 4 meaningful comments.*
    - **Value added post** (4 points)
      This post includes extra-value resources like video explanations, images or links with descriptions, practice exam questions, etc.
    - **Metacognition** (3 points)
      This post describes your thinking about the question and how your understanding may have changed (or deepened) as you engaged with the content.

        - **Community or question** (2 points)
          This post facilitates connections to classmates and helps build community, or poses a question to the class.
    d. **Part 4: Update your PollEverywhere questions (due by 11:59pm on Tues or Thurs)**
       Re-do your Poll Everywhere questions. Use the discussion forum to work out your understanding!
       *Grading: 5 -10 points.*
- 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 multiple choice 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 Saturday 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 as well as a discussion forum. Lab assignments are always due on Fridays by 3:00pm.
- Case studies (20%)
  Over the entire semester, you will participate in 4 case studies. Each case will have 3 parts, except for the final case study which will entail just the worksheet and discussion component.
    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 Mondays by 11:59am, and response posts are due by 11:59pm, unless there is a holiday that alters this timeline
- 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 first 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.

# The HAPS Exam

Every semester since spring 2015, we've administered the comprehensive HAPS A&P exam to our Human Physiology students. This exam covers both anatomy and physiology and is very challenging (the national average is around 55%). We give the exam to help assess our pre-nursing program.

Because it covers both anatomy and physiology (and we don't know when you last had anatomy!), we offer this exam as extra credit. It is scored out of 100 points, so we give you 10% of your score as extra credit in the exam category of your grade. So if you get a 60% on the HAPS exam (which is very good!), then we'll add 6 points to your exam category. This is like getting 6 bonus points on an exam.

We take this exam during finals week. We are hoping to have the option of you taking it from home OR taking it at CR with us. Stay tuned for more information.

## 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 and the case study assignments, this pattern will remain the same throughout the semester. Please use this to help you make your own plan for how you'll complete the course requirements each week.

- By **Monday (11:59am):** Initial case study post (comment or essay), and additional posts due by midnight
- By **Tuesday (5am):** Watch the first video lecture of the week and answer the Poll Everywhere questions
- By **Tuesday (11:59pm):** Participate in the lecture discussion and complete the lecture quiz
- By **Thursday (5am):** Watch the second video lecture and answer the Poll Everywhere questions
- By **Thursday (11:59pm):** Participate in the lecture discussion and complete the lecture quiz
- By **Friday (3pm):** Complete the lab activities and participate in the lab discussion forum
- By **Saturday (11:59pm):** Complete all the weekly quizzes and check-in's
- On **Sunday:** 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.

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# 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 a hold 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 it's lecture related, or to "Questions for Dr. Holstki?" if it's lab or case study related. If you are concerned that we might forget to check the board (this is a legit concern), feel free to email us a reminder (wendyk-riggs@redwoods.edu or gabriel-holtski@redwoods.edu)
- **Is your message private?** Send an email, a Pronto, 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 within 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.

# Pronto

Pronto is a crazy cool chat tool that is embedded in Canvas and seriously ROCKS. You can access Pronto through an app on your phone, through Canvas, or in the web browser. We will use Pronto often, and it is a fantastic way to access your instructors and your fellow students.

One of our orientation activities involves connecting with Pronto. We look forward to playing with you soon!

# 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

During the 20-21 school year, BIOL-7 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.

# F21 Online Physiology Schedule (Holtski-n-Riggs)

Revised: 8/19/21 15:34

**The F21 course syllabus is also found online.**

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

| | DATE | Video Lecture + Poll Everywhere<br>*PE due by 5am, disc due by 11:59pm* | Reading<br>*Silverthorn* | <br>*OpenStax* | Laboratory<br>*due by 3pm* | Case Studies<br>*due by 11:59am* |
|---|---|---|---|---|---|---|
| **1** | M 8/23 | | | | | |
| | T 8/24 | 0 Orientation | | | | |
| | W 8/25 | | | | | |
| | Th 8/26 | 1 Homeostasis | 1, 6 | 1, 26.1 | | |
| | F 8/27 | | | | Lab 1: Homeostatic Pathways | |
| | Sat 8/28 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 8/29 | **REST, STUDY, PREPARE FOR NEXT WEEK** | | | | |
| **2** | M 8/30 | | | | | Case 1: Worksheet |
| | T 8/31 | 2 Fluid compartments and osmosis | 3, 5 | 3.1 | | |
| | W 9/1 | | | | | |
| | Th 9/2 | 3 Communication and pathways | 6 | 1.5, 4.2, pg 88 | | |
| | F 9/3 | | | | Lab 2: PhysioEx (Ex 1- Osmosis) | |
| | Sat 9/4 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 9/5 | **REST, STUDY, PREPARE FOR NEXT WEEK** | | | | |
| **3** | M 9/6 | HOLIDAY: LABOR DAY | | | | |
| | T 9/7 | 4 The endocrine system | 7 | 17.1-3, 17.10 | | Case 1: Rough Draft |
| | W 9/8 | | | | | |
| | Th 9/9 | 5 The action potential | 8 | 12.4, 12.5 | | |
| | F 9/10 | | | | Lab 3: Endocrine Hamsters | |
| | Sat 9/11 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 9/12 | **REST, STUDY, PREPARE FOR NEXT WEEK** | | | | |
| **4** | M 9/13 | | | | | |
| | T 9/14 | 6 Sensory receptors and the afferent NS | 10 | 14.1 | | |
| | W 9/15 | | | | | |
| | Th 9/16 | **EXAM 1 (and EB 1) OPEN**<br>*due Monday 9/20 by 11:59pm* | | | | |
| | F 9/17 | | | | Lab 4: Sensory physiology (LT) | |
| | Sat 9/18 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 9/19 | | | | | |

## Essential Question: How does the human body DO SOMETHING?

| | DATE | Video Lecture + Poll Everywhere<br>*PE due by 5am, disc due by 11:59pm* | Reading<br>*Silverthorn* | <br>*OpenStax* | Laboratory<br>*due by 3pm* | Case Studies<br>*due by 11:59pm* |
|---|---|---|---|---|---|---|
| **5** | M 9/20 | **EXAM 1 (and EB 1) DUE**<br>*due Monday 9/20 by 11:59pm* | | | | Case 1: Final Draft |
| | T 9/21 | | | | | |
| | W 9/22 | | | | | |
| | Th 9/23 | 7 Autonomic NS | 11 | 15.2-3, 17.6 | | |
| | F 9/24 | | | | Lab 5: Process of science, reaction time, and data analysis | |
| | Sat 9/25 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 9/26 | **REST, STUDY, PREPARE FOR NEXT WEEK** | | | | |
| **6** | M 9/27 | | | | | |
| | T 9/28 | 8 Skeletal muscle | 12 | 10.2, 10.3 | | |
| | W 9/29 | | | | | |
| | Th 9/30 | 9 Muscle biomechanics | 12, 13 | 10.4, 10.5, 10.6 | | |

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|---|---|---|---|---|---|---|
| | F 10/1 | | | | Lab 6: Muscle and EMG (LT) | |
| | Sat 10/2 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 10/3 | **REST, STUDY, PREPARE FOR NEXT WEEK** | | | | |
| **7** | M 10/4 | | | | | Case 2: Worksheet |
| | T 10/5 | 10 Cardiac muscle | 14 | 10.7, 19.2, 19.4 | | |
| | W 10/6 | | | | | |
| | Th 10/7 | 11 Cardiac cycle | 1, 14 | 19.2, 19.3, 19.4 | | |
| | F 10/8 | | | | Lab 7: Heart and ECG (LT) | |
| | Sat 10/9 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 10/10 | **REST, STUDY, PREPARE FOR NEXT WEEK** | | | | |
| **8** | M 10/11 | | | | | Case 2: Rough Draft |
| | T 10/12 | 12 Blood pressure | 15, 16 | 19.4, 20.2 | | |
| | W 10/13 | | | | | |
| | Th 10/14 | **EXAM 2 (and EB 2) OPEN**<br>*due Monday 10/18 by 11:59pm* | | | | |
| | F 10/15 | | | | Lab 8: Heart and Peripheral Circulation (LT) | |
| | Sat 10/16 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 10/17 | | | | | |

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

| | DATE | Video Lecture + Poll Everywhere<br>*PE due by 5am, disc due by 11:59pm* | Reading<br>*Silverthorn* | <br>*OpenStax* | Laboratory<br>*due by 3pm* | Case Studies<br>*due by 11:59pm* |
|---|---|---|---|---|---|---|
| **9** | M 10/18 | **EXAM 2 (and EB 2) DUE**<br>*due Monday 10/18 by 11:59pm* | | | | |
| | T 10/19 | | | | | |
| | W 10/20 | | | | | |
| | Th 10/21 | 13 Capillary exchange and hemostasis | 15-16 | 20.3, 20.4?, 21.1 | | |
| | F 10/22 | | | | Lab 9: PhysioEx (Ex 11- Blood typing) | |
| | Sat 10/23 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 10/24 | **REST, STUDY, PREPARE FOR NEXT WEEK** | | | | |
| **10** | M 10/25 | | | | | Case 2: Final Draft |
| | T 10/26 | 14 Breathing | 17 | 22.3 | | |
| | W 10/27 | | | | | |
| | Th 10/28 | 15 Gas exchange | 18 | 18.3, 22.4, 22.5 | | |
| | F 10/29 | | | | Lab 10: PhysioEx (Ex 7- Breathing) | |
| | Sat 10/30 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 10/31 | **REST, STUDY, PREPARE FOR NEXT WEEK** | | | | |
| **11** | M 11/1 | | | | | Case 3: Worksheet |
| | T 11/2 | 16 The nephron | 19 | 25.4, 25.5-7, 25.8 | | |
| | W 11/3 | | | | | |
| | Th 11/4 | 17 Filtrate reabsorption | 19 | 25.6 | | |
| | F 11/5 | **EXAM 3: opens 9am** | | | Lab 11: Water balance (LT) | |
| | Sat 11/6 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 11/7 | **REST, STUDY, PREPARE FOR NEXT WEEK** | | | | |
| **12** | M 11/8 | | | | | Case 3: Rough Draft |
| | T 11/9 | 18 Fluid balance | 20 | 25.1, 25.9, 25.10, 26.1-4 | | |
| | W 11/10 | | | | | |
| | Th 11/11 | **VETERAN'S DAY HOLIDAY** | | | | |

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|---|---|---|---|---|---|---|
| | F 11/12 | **EXAM 3 (and EB 3) OPEN**<br>*due Monday 11/15 by 11:59pm* | | | Lab 12: PhysioEx (Ex 9 and 10- Kidneys) | |
| | Sat 11/13 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 11/14 | | | | | |

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

| | DATE | Video Lecture + Poll Everywhere<br>*PE due by 5am, disc due by 11:59pm* | Reading<br>*Silverthorn* | <br>*OpenStax* | Laboratory<br>*due by 3pm* | Case Studies<br>*due by 11:59pm* |
|---|---|---|---|---|---|---|
| **13** | M 11/15 | **EXAM 3 (and EB 3) DUE**<br>*due Monday 11/15 by 11:59pm* | | | | |
| | T 11/16 | 19 Innate immunity | 24 | 18.4, 21.2 | | |
| | W 11/17 | | | | | |
| | Th 11/18 | 20 Acquired immunity | 24 | 18.6, 21.1, 21.3, 21.4 | | |
| | F 11/19 | | | | Lab 13: Take a break! | |
| | Sat 11/20 | ***Weekly quizzes and check-in due 11:59pm*** | | | | Case 3: Final Draft |
| | Sun 11/21 | **REST, STUDY, PREPARE FOR NEXT WEEK** | | | | |
| | M 11/22 | **THANKSGIVING HOLIDAY** | | | | |
| | | | | | | |
| | Sun 11/28 | | | | | |
| **14** | M 11/29 | | | | | |
| | T 11/30 | 21 Digestion | 21, 22, 25 | 17.9, 23.2, 23.7, 24 | | |
| | W 12/1 | | | | | |
| | Th 12/2 | 23 Thyroid function | 22, 23 | 17.4-5, 24, 6.6, 6.7 (Ca) | | |
| | F 12/3 | | | | Lab 14: PhysioEx (Ex 8- Digestion) | |
| | Sat 12/4 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 12/5 | **REST, STUDY, PREPARE FOR NEXT WEEK** | | | | |
| **15** | M 12/6 | | | | | Case 4: Worksheet |
| | T 12/7 | 24 Reproduction | 26 | 27.2, 17.8 | | |
| | W 12/8 | | | | | |
| | Th 12/9 | **EXAM 4 (and EB 4) OPEN**<br>*due Monday 12/13 by 11:59pm* | | | | |
| | F 12/10 | **HAPS & FINAL EXAMS OPEN**<br>*due Wednesday 12/15 by 11:59pm* | | | Lab 15: PhysioEx (Ex 4- Hormones) | |
| | Sat 12/11 | ***Weekly quizzes and check-in due 11:59pm*** | | | | |
| | Sun 12/12 | | | | | |

## Finals Week

| | | |
|---|---|---|
| **16** | M 12/13 | **EXAM 4 (and EB 4) DUE**<br>*due Monday 12/13 by 11:59pm* |
| | T 12/14 | |
| | W 12/15 | **HAPS & FINAL EXAMS DUE**<br>*due Wednesday 12/15 by 11:59pm* |
| | Th 12/16 | |

** Schedule is subject to change**