

	<p>Biology 1040: Human Anatomy and Physiology II section 2 3 units</p> <p>Bio 1040L: Human Anatomy and Physiology II lab Lab sections 3A & 3B & 3C 1 unit</p>
Spring 2026	

Lecture time & location: Latter Hall 01 MWF 1:30 – 2:25 pm	Instructor title and name: Dr. Yoojin Choi
Laboratory time & location: Sator 117 section 3A: Thu 7:45 – 10:45 am section 3B: Thu 11 am – 2 pm section 3C: Thu 2:30 – 5:30 pm	Phone: (619) 849-2654
Final Exam: Fri, May 8 1:30 – 3:30 pm	Email: ychoi@pointloma.edu
Office location: Rohr Science 116 (Enter through Biology Office Suite) Office hours: MWF 10:30 – 11:30am <i>*I'm thinking of adding a Caf drop-in hour on Wed. I'll poll the class in Wk1!</i> These "office hours" are drop-in hours for students! I am committing to sit in my office and <u>wait for you to drop in</u> , but you're welcome to come in and chat if my door is open at any other time. (My weekly schedule is posted by the door.) If you prefer a designated meeting time, we can set up an in-person or Zoom mtng. I want to be available to meet with you and help you succeed!	

PLNU Mission

To Teach ~ To Shape ~ To Send

Point Loma Nazarene University exists to provide higher education in a vital Christian community where minds are engaged and challenged, character is modeled and formed, and service is an expression of faith. Being of Wesleyan heritage we strive to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

[Course Description: Bio 1040](#)

The second semester of a sequence which examines the human body from an integrated perspective emphasizing the interrelationship of structure and function. Topics include sensory and autonomic nervous system, endocrine system and reproduction, cardiovascular, immune, respiratory, digestive, and urinary systems. 3 units

[Co-requisite: Bio 1040L](#)

This A&P laboratory is a Bio 1040 co-requisite. Students enrolled in Bio 1040 must be enrolled in Bio 1040L, and vice versa. If Bio 1040 is dropped, Bio 1040L must also be dropped. Offered every year. Letter graded. Your grade for Bio 1040 and Bio 1040L will be calculated together and the same grade applied to both. 1 unit

[Pre-requisites: Bio 1030 and Che 1003 or Che 1052](#)

A passing grade in Bio 1030 and Che 1003 or Che 1052 (or their equivalent) is a prerequisite for this course. If you failed either one of these, you are not eligible to enroll in Bio 1040. This course is the second of a two-semester sequence where the structure and function of various systems of the body are studied in an integrated fashion. If you did not take Biology 1030 at PLNU, you should see me to be sure that your background is appropriate for this course.

Course Learning Outcomes

1. You will be able to identify the anatomy of, and blood flow through, the mammalian heart.
2. You will be able to identify major blood vessels of the human and the cat, and the regions supplied by these blood vessels.
3. You will understand the basic anatomy and physiology of the sensory and autonomic nervous systems, endocrine system, cardiovascular system, immune system, respiratory system, digestive system, and urinary system.
4. You will be able to describe the symptoms and mechanisms of representative diseases and injuries, and explain how such pathophysiology relates to normal anatomy and physiology.

* See [Appendix 2](#) for alignment with program learning outcomes of PLNU TUG programs that require Bio 1030 & 1040.

Required Texts and Materials

For each lecture there is an assigned reading. It is recommended that you read through these pages both prior to and following the related lecture. The textbook will be used both semesters of the Human Anatomy and Physiology sequence (Bio 1030 & Bio 1040); the dissection kit is also used both semesters.

- Betts, DeSaix and Johnson, *Anatomy and Physiology* (2nd ed.), OpenStax, 2022. ISBN-13: 978-1711494067 available as a free e-text or PDF at <https://openstax.org/details/books/anatomy-and-physiology-2e>

You should download the free PDF on your devices now. Do not count on online access at time of studying.

You can buy a hardcopy online or at the bookstore. Many students prefer the hardcopy, particularly in lab.

The following materials are required for various laboratory activities:

- Dissecting kit (same as for Bio 1030; available at bookstore)
- Safety glasses (same as for Bio 1030; available at bookstore)
- Old shirt or lab coat for dissecting work

All course materials are posted on Canvas, and grades are kept on Canvas. Check Canvas and PLNU email daily. Adjust Canvas notification settings to suit your needs so you can stay on top of tasks without getting inundated with alerts.

Recommended Materials

These two items are for sale at the bookstore and may be helpful for learning the anatomical material.

- Krieger, A Visual Analogy Guide to Human Anatomy & Physiology
- Hansen, Netter's Anatomy Coloring Book

I also recommend that you use an iPad app like Essential Anatomy or an online tool like Visible Body, particularly for bones, bone structures, and muscles.

Spiritual Care

PLNU strives to be a place where you grow as whole persons. To this end, we provide resources for our students to encounter God and grow in their Christian faith. If you have questions, a desire to meet with the chaplain or have prayer requests you can also contact the [Office of Spiritual Life and Formation](#).

Beyond the official university language, I want to personally invite you to weave this course and me into your faith journey. Although the A&P curriculum is tight, I try to make time every week in class to do a class devotional or pray for you, and "Office Hours" are drop-in time for us to have conversations about all topics, not just academics.

You're not just a student to me but a whole person made in God's image with physical, emotional, relational, and spiritual needs.

Dr. Choi's Teaching and Learning Philosophy

You are the main player in your learning, not a spectator of my teaching. The responsibility to learn is yours. For learning to happen, you must take an active role in the process. However, you are not alone in the process: I am here to work with you. Extending the sports analogy, I'm your coach and your classmates are teammates, and we learn together in community.

You are expected to come to class prepared, which requires you to read, study, and learn *before* class. Of course, you're expected to keep reading, studying, and practicing after class, too. There will be a lot of interactive learning in both lecture and lab. I expect you to pull your weight and collaborate actively. Let us all help in each other's learning.

Learning Opportunities and Expectations

Reading Before Class:

Reading the assigned pages in the textbook is essential for success in this course. The assigned pages are noted in the [class schedule](#), and you should read the pages before class to give you context for the lecture and boost your confidence for classroom participation. This will ensure you are giving yourself the best chance for success in this course. Also, note on the Lecture Schedule below that there are things you need to learn on your own outside of class time.

- *Helpful Tip:* To prioritize more important content, refer to the lecture outline as you read the textbook.

Taking Notes in Class:

Lecture outlines are provided on Canvas. Print, bring to class in an organized manner (e.g. three-ring binder), and take notes. I will try my best to video-capture every lecture and upload the recordings on Canvas, as a studying tool for everyone and in case someone has to miss class. See "[Recording Notification](#)" below.

- *Helpful Tip:* Use different colored pens to take notes. E.g. pre-class skimming notes in pencil vs in-class notes in black pen; main theme in red vs other notes in black; your questions in blue vs my comments in black.

Studying:

It is highly recommended that you study at least 2-3 hours for every unit or credit hour in college. Since Bio 1040 is a four-unit course, you should be studying 8-12 hours every single week—and not just the week prior to an exam. This studying should also be spread out during each week, not simply occurring before quizzes.

Note that "studying" is a separate section from "reading." Studying needs to be **active**. If you need to re-read the textbook, of course you should. However, *simply* re-reading the textbook or watching recorded lectures is passive. Make sure that you not only **memorize** but that you also **understand** the material. For example, many students' favorite technique for memorizing is flashcards, but you cannot flashcard your way out of A&P. Write out and diagram the relationships of terms, and explain processes in written and verbal formats.

- *Helpful Tip on flashcards:* Make them yourself on paper instead of using digital ones. Shuffle the cards before testing yourself. Sort into 'done' vs 'work on' piles. Have someone else test you with their flashcards.

To **understand** the material, model in-class activities of quizzing each other (active recall!) and teaching each other; write your understanding of a topic and swap it with a classmate to see how it can be phrased differently; make a practice quiz and swap it with a classmate for authentic practice; etc. **Note that the best active studying involves working together in community.**

Additional Tools for Success:

Weekly Review Sessions will be offered by an experienced peer leader. Ryan Learning Center also provides [Tutorial Services](#) for individual and group tutoring. Peer tutors have been assigned to this course.

Electronic Devices Policy:

Please take out your electronic devices only when asked to do so. Electronic devices interfere with your learning and can be a distraction to your neighbors. Numerous research studies (some highlighted here) have confirmed that classroom electronics use is detrimental to learning.

1. [You may think that you can multitask, but studies show you can't.](#)
2. As already mentioned, using your laptop in class can be less than neighborly. [Your classmates' grades can also suffer due to the distracting pull of the laptop.](#)
3. Writing by hand is a more effective way of learning than is typing. With typing, each letter is pretty much the same thing for the brain. Writing, however, uses different muscle groups with each word and encourages the brain to integrate material during the writing process. [Typing may be easy and fast, but by making the brain passive, it discourages learning.](#) (“[Why writing by hand beats typing for thinking and learning](#)”)
4. [This study suggests that cellphone use in class can lower one's grade by half a letter grade.](#)

However, I also recognize the value of having the lecture outline as you take notes in class. Many students have told me that they cannot afford to print the many pages of the lecture outline. You may use a device that allows you to write on the screen (like Apple Pen on iPad). Handwriting either on paper or on your device is better for your learning than typing. For your sake and to avoid distracting other students, put it on airplane mode and do not use it for other purposes during class. You will lose points for violating the Electronic Devices Policy.

If you truly do not have the funds to take notes like I described, please come talk to me.

Assessment and Grading

Based on 1250 total points

Your grade for Bio 1040 and Bio 1040L will be calculated together and the same grade will be applied to both.

Lecture points: 910 points

- 1) Participation and Collaboration = 60 points
- 2) Friday Quizzes (10 pts/quiz x 6 quizzes) = 60 points
- 3) Small Assignments = 110 points
- 4) End-of-Year Reflection = 30 points
- 5) Unit Exams (100 pts/exam x 5 exams) = 500 points
- 6) Cumulative Final Exam = 150 points

Laboratory points: 340 points

- 1) Laboratory Quizzes: 10 regular lab quizzes, lowest two dropped (10 pts/quiz) = 80 points
- 2) Laboratory Quizzes: 2 big lab quizzes (14 points + 16 points) = 30 points
- 3) Laboratory Worksheets: 7 lab worksheets, lowest dropped (20 pts/wksh + 10pt wksh) = 130 points
- 4) Circulatory System Lab Practical = 100 points

Your letter grade will be determined from your cumulative percent score as follows:

A:	93.0—100%	B-:	80.0—82.99	D+:	67.0—69.99
A-:	90.0—92.99	C+:	77.0—79.99	D:	63.0—66.99
B+:	87.0—89.99	C:	73.0—76.99	D-:	60.0—62.99
B:	83.0—86.99	C-:	70.0—72.99	F:	≤ 59.99

- To model professionalism, I strive for honest and timely feedback, and transparency and fairness in grading. Scores for individual assessments are posted on Canvas Grades. Please ask about grades as soon as you have a question. Do not wait until the end of the semester. The course follows a straightforward point system, so there is no need for “negotiating” over letter grades at the end of the semester.
- Physical copies of grades are kept for one year from the end of the semester.

Lecture Points (910 total)

Participation and Collaboration:

We are expected to respect each other, have an openness of mind toward new points of view, and have curiosity for learning new material. You are expected to participate actively in all class activities in collaboration with classmates from diverse backgrounds.

Your active participation in class is critical to our collective understanding and growth. Make sure you prepare for every class in order to participate well. Simply attending class does not earn you 5 out of 5 points for a given recorded class. See [Appendix 1: Participation and Collaboration Rubric](#) to understand how you will be graded. Note that you can come to class and still get a 2 or 3 out of 5 points.

Participation and Collaboration will be recorded every lecture class (MWF), then 12 random records will be entered into Canvas Grades (5 pts x 12 = 60 pts). Note that the first six will be entered before the midpoint and included in your midterm grade, and the remaining six will be entered at the end of the semester. If you are absent for a class meeting that happens to be selected, a zero will be entered. If the absence is excused due to an official University obligation (requiring prior official notification), you will receive a 3 out of 5. You can make up the two points by participating on Canvas; see below. There are no other forms of excused absences. I would appreciate a courtesy email about absences for illness, doctor’s appointments, or family circumstances, but you are not required to, and these are not considered excused absences. You can earn back up to two points by participating on Canvas; see below. I also respect individual differences in comfort levels about speaking up in person, so if you choose not to speak up in front of the whole class in person and receive a 4 for a class you attended (See [Appendix 1](#) Participation and Collaboration Rubric), you can participate online to make up for that point.

Online Participation as makeup: Because it would be unfair to lose points for the above three reasons, there is an opportunity to make up either some or all of the lost points. 1. Absence due to an official University obligation: Study with the lecture recording within three days of absence, then participate twice on the Canvas Discussion “Online Participation” within three days of absence. 2. Absence due to illness, doctor’s appointments, or family circumstances: Study with the lecture recording within three days of absence, then participate twice on the Canvas Discussion “Online Participation” within three days of absence for a 2 out of 5, instead of a zero. 3. If you are making up 1 pt for not speaking in class, you should also do this within three days, and participate once (instead of twice like for an absence).

Valid forms of participation include (1) asking a question about the material, (2) answering another student’s question from any of the past postings, (3) posing a question then reporting your own findings, or (4) posting a helpful comment. If you opt for (3) or (4), you must cite the source. See Canvas for more details.

Consider the Online Participation equivalent to in-person participation – except with a time delay. Having to think about what to ask has learning benefits; and explaining your answers to each other’s questions in writing is a great practice for quizzes and exams. You should not copy and paste from any source on these explanations, because that

defeats the purpose of having you think about the answer in preparation for quizzes and exams. See [Artificial Intelligence \(AI\) Policy](#) below.

I hope you can tell from the large amount of information in this section that I truly care about active participation from individual students and about collaboration between students. You are an active agent in your own learning, and we are learning together in community.

Quizzes:

Research shows that frequent quizzing is an effective learning tool. There will be frequent quizzing throughout the semester, so expect one every class. The quizzes are there to help you keep up with the material regularly/daily. Not every quiz will count toward your semester grade. I may decide to count some of these pop quizzes as a Small Assignment (see below) or extra credit, but some may only be for additional practice.

Every Friday unless there is an exam, you will take a 10-point quiz. Multiple-choice questions and/or short-answer questions will be given, in the same style as exams. Don't worry if you happen to miss a quiz or do poorly on a couple; only your six best scores out of all Friday Quizzes will count toward the semester grade. Missed quizzes cannot be made up. Quizzes and exams are taken on paper.

Small Assignments:

Several small assignments will be given throughout the semester as encouragement to read before class, for formative assessment (to provide constructive feedback), and to help you keep up with the material. They may include in-class activities and homework assignments. Not every in-class activity such as a pop quiz is included in your semester grade, but assume that any in-class activity can be included and do your best.

Most homework assignments are due on Canvas. Late homework is accepted, but Canvas is set up to take 10% off for being late, starting from the second it is late and taking 10% off more every 24 hours. See Canvas for more details.

End-of-Year Reflection:

At the end of the spring semester, you will be asked to reflect on how you grew as a student through A&P 1 and 2, and then reflect on how you grew as a person through the connections between A&P and all your other college experiences this academic year. See Canvas for more details.

Unit Exams:

A non-cumulative "unit" exam worth 100 points will be given on the dates indicated in the [Tentative Lecture Schedule](#). Exams can only be rescheduled for an official University obligation (requiring prior official notification), upon student request. Each exam has 40 multiple-choice questions (80 pts total) and several questions requiring written answers (20 pts). Exams must be taken in class or at the EAC; see [Accommodation](#) below. If you miss an exam, you can make it up but a late penalty of 10% which is 10pts per calendar day will be applied.

Cumulative Final Exam:

The Final Exam is cumulative and worth 150 points (which is only 12% of the final grade). According to the University's [Final Exam Schedule](#), ours is scheduled for Friday, May 8 at 1:30pm.

Lab Points (340 points total) and Other Information About Lab

Attendance:

Attendance in laboratory is mandatory. You are expected to stay for the **entire scheduled laboratory period**. If you do not attend or fail to complete the scheduled laboratory, you will not receive any credit for that particular lab. This penalty also applies to the dissection labs; individuals who do not fully participate in the dissection labs will have 25pts subtracted from their lab practical score for each missed dissection period. If you anticipate missing your scheduled lab section, you *might* be able to attend another lab section during that same week. Such a switch requires **prior** permission (because I may need to ask a Tue or Wed instructor to fit you in) and should not be viewed as an automatic privilege.

Laboratory Packets:

Prepare for lab by reading the assigned packet/handout ahead of time (Canvas). Check in advance which pages require printing for a given day. While I will allow you to leave lab for a few minutes to print, your absence will be a burden on your lab group.

Laboratory Quizzes:

As indicated on the [Laboratory Schedule](#), quizzes will be administered at the start of lab period. If you are late for lab, you will have less or no time to take the quiz. Lab quizzes cannot be made up unless it is due to an official University obligation (requiring prior notification from the administration and the student).

Laboratory Worksheets:

Some labs require that you complete a worksheet in class during the lab period and submit it. The 20-point worksheet will be due at the end of the lab period. You **cannot** submit a worksheet for a lab you did not attend. It is important that you recognize that these laboratory write-ups must **reflect your own work**, and not someone else's. You should discuss the assignment with your classmates, but you cannot copy their answers. Students who hand in identical answers will not be given any credit for that assignment. Using AI to answer the questions is discouraged, and it will probably be to your disadvantage as the worksheet questions are tailored to our specific course material. You must submit all your lab worksheets on a full-size printed handout.

Circulatory (Cardiovascular) System Lab Practical:

The circulatory/cardiovascular system practical exam is scheduled for **Tuesday, March 3** (not on Thu). The practical will be administered in one-hour blocks during school hours. There will be a sign-up process prior to the exam. If you anticipate conflicts, please clear them well in advance. The laboratory practical exam is worth 100 points.

Laboratory Safety and Clean-Up:

- **No food (including gum) or drinks in the laboratory.** You can keep a fully closed water bottle in your backpack. If you need a drink, you must step out of the lab.
- **Keep all backpacks and other personal belongings completely under the lab bench**, such that no one could possibly trip over these items.
- **Proper attire is required at all times in Biology lab spaces.** Students who are not wearing proper clothing and shoes will be asked to leave the lab. Proper lab attire means having as much skin covered as you can from your shoulders to your toes.
 - **Tie long hair and remove any loose-hanging accessories** (e.g. lanyard, necklace, hoodie strings, bracelets).

- **Shirts that completely cover the torso without adjustment:** Shirts must cover the shoulders, chest and stomach area completely without having to constantly readjust to maintain coverage. Putting on a lab coat or an old T-shirt over your regular clothing is a good idea. Lab coats are not required.
- **Pants or long skirts that reach the ankles.**
- **Enclosed shoes with socks.** Open-toe, open-top, or open-back shoes (sandals, clogs, Crocs, slippers, low-backed UGGs, etc) are not permitted.
- **Students must wear safety glasses whenever they are handling dissection material.**
- At the end of each laboratory period make sure that your table, and the equipment you've used, has been **cleaned and returned** to its appropriate place. Points are deducted for messes not cleaned up.

Artificial intelligence (AI) policy

You are allowed to use Artificial Intelligence (AI) tools (e.g., ChatGPT, Gemini Pro 1.5, GrammarlyGo, Perplexity, etc.) in this course. In fact, we will engage it actively in class. Any work that utilizes AI-based tools must be clearly identified as such, including the specific tool(s) used. That's the academically honest thing to do, and I'm also interested in knowing what tools you prefer! Please use the following sources to guide your citations when using AI. Both APA (American Psychological Association) and AMA (American Medical Association) styles of citation are acceptable in this course. Be consistent in your citation style within a given assignment.

- APA Style: [How to Cite ChatGPT](#)
- AMA Style: [AMA Software and AI](#)

Recording Notification

In order to enhance the learning experience, please be advised that this course may be recorded for educational purposes, and access to these recordings will be limited to enrolled students and authorized personnel. Note that all recordings are subject to copyright protection. Any unauthorized distribution or publication of these recordings without written approval from the University (refer to the Dean) is strictly prohibited.

Content Warning

I acknowledge that each of you comes to PLNU with your own unique life experiences. This contributes to the way you perceive various types of information. In Bio 1030 & 1040, all the class content, including that which may be intellectually or emotionally challenging, has been intentionally curated to achieve the learning goals for this course. The decision to include such material is not taken lightly. These topics include several diseases which may have affected you, family members or friends. We will also examine human cadavers in lab. If you encounter a topic that is challenging for you, it can manifest in feelings of discomfort and being upset. In response, I encourage you to come talk to me about it. Class topics are discussed for the purpose of expanding your intellectual engagement in Human Anatomy and Physiology, and I will support you throughout your learning in this course.

PLNU FINAL EXAMINATION POLICY

Successful completion of this class requires taking the final examination on its scheduled day. The final examination schedule is posted on the Traditional Undergraduate Records: [Final Exam Schedule](#). If you find yourself scheduled for three (3) or more final examinations on the same day, you are authorized to contact each professor to arrange a different time for one of those exams. However, unless you have three (3) or more exams on the same day, no requests for alternative final examinations will be granted.

PLNU ATTENDANCE AND PARTICIPATION POLICY

Regular and punctual attendance at all class sessions is considered essential to optimum academic achievement. If the student is absent for more than 10 percent of class sessions, the faculty member will issue a written warning of de-enrollment. If the absences exceed 20 percent, the student may be de-enrolled without notice until the university withdrawal date or, after that date, receive an “F” grade.

PLNU ACADEMIC HONESTY POLICY

Students should demonstrate academic honesty by doing original work and by giving appropriate credit to the ideas of others. Academic dishonesty is the act of presenting information, ideas, and/or concepts as one’s own when in reality they are the results of another person’s creativity and effort. A faculty member who believes a situation involving academic dishonesty has been detected may assign a failing grade for that assignment or examination, or, depending on the seriousness of the offense, for the course. Faculty should follow and students may appeal using the procedure in the university Catalog. See Academic Policies for definitions of kinds of academic dishonesty and for further policy information.

The laboratory portion of the course has practical exams. Since practical exams are administered in the lab, they cannot be given to the entire class at once but must instead be given to smaller groups of students at separate times. Any discussion of the content of the exam between a student who has taken the practical exam with another student who has yet to take the exam will be considered to be cheating on the part of both students, and dealt with as described above.

PLNU POLICY ON SEXUAL MISCONDUCT AND DISCRIMINATION

PLNU faculty are committed to helping create a safe learning environment for all students. If you (or someone you know) have experienced any form of sexual discrimination or misconduct, including sexual assault, dating or domestic violence, or stalking, know that help and support are available through the Title IX Office at pointloma.edu/Title-IX. Please be aware that under Title IX of the Education Amendments of 1972, it is required to disclose information about such misconduct to the Title IX Office.

If you wish to speak to a confidential employee who does not have this reporting responsibility, you can contact Counseling Services at counselingservices@pointloma.edu or find a list of campus pastors at <https://www.pointloma.edu/title-ix>.

If you (or someone you know) have experienced other forms of discrimination or bias, you can find more information on reporting and resources at www.pointloma.edu/bias.

PLNU STATEMENT ON LANGUAGE AND BELONGING

PLNU faculty are committed to helping create a safe and hospitable learning environment for all students. As Christian scholars we are keenly aware of the power of language and believe in treating others with dignity. As such, it is important that our language be equitable, inclusive, and prejudice free. Inclusive/Bias-free language is the standard outlined by all major academic style guides, including MLA, APA, and Chicago, and it is the expected norm in university-level work. Good writing and speaking do not use unsubstantiated or irrelevant generalizations about personal qualities such as age, disability, economic class, ethnicity, marital status, parentage, political or religious beliefs, race, gender, sex, or sexual orientation. Inclusive language also avoids using stereotypes or terminology that demeans persons or groups based on age, disability, class, ethnicity, gender, race, language, or national origin. Respectful use of language is particularly important when referring to those outside of the religious and lifestyle commitments of those in the PLNU community. By working toward precision and clarity of language, we mark ourselves as serious and respectful scholars, and we model the Christ-like quality of hospitality.

If you (or someone you know) have experienced a bias incident regarding language, you can find more information on reporting and resources at www.pointloma.edu/bias.

PLNU COPYRIGHT POLICY

Point Loma Nazarene University, as a non-profit educational institution, is entitled by law to use materials protected by the US Copyright Act for classroom education. Any use of those materials outside the class may violate the law.

PLNU ACADEMIC ACCOMMODATIONS POLICY

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities. Students with disabilities may request course-related accommodations by contacting the Educational Access Center (EAC), located in the Bond Academic Center (EAC@pointloma.edu or 619-849-2486). Once a student's eligibility for an accommodation has been determined, the EAC will issue an academic accommodation plan ("AP") to all faculty who teach courses in which the student is enrolled each semester.

PLNU highly recommends that students speak with their professors during the first two weeks of each semester/term about the implementation of their AP in that particular course and/or if they do not wish to utilize some or all of the elements of their AP in that course.

Students who need accommodations for a disability should contact the EAC as early as possible (i.e., ideally before the beginning of the semester) to assure appropriate accommodations can be provided. It is the student's responsibility to make the first contact with the EAC. Students cannot assume that because they had accommodations in the past, their eligibility at PLNU is automatic. All determinations at PLNU must go through the EAC process. This is to protect the privacy of students with disabilities who may not want to disclose this information and are not asking for any accommodations.

STATE AUTHORIZATION

State authorization is a formal determination by a state that Point Loma Nazarene University is approved to conduct activities regulated by that state. In certain states outside California, Point Loma Nazarene University is not authorized to enroll online (distance education) students. If a student moves to another state after admission to the program and/or enrollment in an online course, continuation within the program and/or course will depend on whether Point Loma Nazarene University is authorized to offer distance education courses in that state. It is the student's responsibility to notify the institution of any change in his or her physical location. Refer to the map on [State Authorization](#) to view which states allow online (distance education) outside of California.

Tentative Lecture Schedule

Wk #	Date	Topic <i>Review topics (textbook page #)</i>	Textbook pages
1	Jan 12 (M)	Spinal Reflexes <i>nervous system (452-457); neurons (459); spinal cord (509-510)</i>	chp. 14 pp. 539-542, 577-578
	On Your Own: Categorizations of Sensory Receptors		
	Jan 14 (W)	General Senses (of skin) Chemical Senses: Gustation and Olfaction <i>cranial nerves (522-525)</i>	chp. 14 pp. 542-546
	Jan 16 (F)	Visual System I <i>cranial nerves (522-525); motor units (373-374)</i>	chp. 14 pp. 552-558
2	Jan 19 (M)	Martin Luther King Day – no class	
	Jan 21 (W)	Visual System II <i>cranial nerves (522-525)</i>	chp. 14 pp. 552-558
	Jan 23 (F)	Ear Anatomy <i>cranial nerves (522-525)</i>	chp. 14 pp. 546-551
	Last day to drop semester courses (no record on transcript)		
3	Jan 26 (M)	Inner Ear Function: Hearing & Proprioception <i>cranial nerves (522-525)</i>	chp. 14 pp. 546-551
	Jan 28 (W)	Autonomic Nervous System <i>brain (500-508); cranial nerves (522-525); spinal cord (509-510)</i>	chp. 15 pp. 589-620
	Jan 30 (F)	EXAM 1 Covers lecture material, On Your Own material and cranial nerves 1/12—1/26 (6 lectures)	
4	Feb 2 (M)	Overview of Endocrine System <i>exocytosis (90); glands (137-140)</i>	chp. 17 pp. 661-673
	Feb 4 (W)	Pituitary and Hypothalamus <i>diencephalon (504-506)</i>	chp. 17 pp. 673-680
	Feb 6 (F)	Other Endocrine Glands <i>Ca⁺⁺ homeostasis (217-220); sympathetic NS (590-593)</i>	chp. 17 pp. 680-692
5	Feb 9 (M)	Male Reproductive System <i>steroids (67-68); pituitary and hypothalamus (673-674)</i>	chp. 3 pp. 107-121 chp. 27 pp. 1186-1196

	Feb 11 (W)	Female Reproductive System <i>steroids (67-68); pituitary and hypothalamus (673-674)</i>	chp. 27 pp. 1196-1212
	Feb 13 (F)	EXAM 2 Covers lecture material 1/28—2/11 (6 lectures) ** Note that Wed lec is included.	
6	Feb 16 (M)	Heart Anatomy and Histology <i>membrane junctions (132); serous membrane (129-130); skeletal muscle fibers (359-369)</i>	chp. 19 pp. 751-767
	Feb 18 (W)	Cardiac Cycle & Heart Electrical Properties I <i>action potentials and skeletal muscle (473-475)</i>	chp. 19 pp. 772-787
	Feb 20 (F)	Cardiac Cycle & Heart Electrical Properties II <i>action potentials and skeletal muscle (473-475)</i>	chp. 19 pp. 772-787

7	Feb 23 (M)	Regulation of Cardiac Output <i>autonomic nervous system (589-620)</i>	chp. 19 pp. 788-799
	Feb 25 (W)	Blood Vessels histology (139-140)	chp. 20 pp. 810-820
	Feb 27 (F)	EXAM 3 Covers lecture material 2/16—2/25 (5 lectures) ** Note that Wed lec is included.	

8	Mar 2 (M)	Blood Flow and Blood Pressure <i>reflex arc (599)</i>	chp. 20 pp. 821-830
	Mar 3 (Tue)	Lab Practical Exam—all sections	
	Mar 4 (W)	Blood I <i>osmosis (86-87); bone marrow (194, 197)</i>	chp. 18 pp. 711-743
	Mar 6 (F)	Blood II <i>bone marrow (194, 197)</i>	chp. 18 pp. 711-743

	Mar 9-13	Spring Break – no classes	
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9	Mar 16 (M)	Lymphatic System <i>osmosis (86-87)</i>	chp. 20 pp. 830-832 chp. 21 pp. 894-905
	Mar 18 (W)	Innate Immunity <i>plasma membrane (82-84); phagocytosis (89); skin (164-167); hypothalamus (505-506)</i>	chp. 21 pp. 905-912
	Mar 20 (F)	Adaptive Immunity <i>blood grouping & typing (739-743)</i>	chp. 21 pp. 912-934

10	Mar 23 (M)	Respiratory System Anatomy & Volumes <i>epithelial tissues & glands (130-140); cartilage (145-146); olfaction (544-545); autonomic nervous system (589-620)</i>	chp. 22 pp. 947-961, 965-967
	On Your Own: Pulmonary Air Volumes and Capacities		
	Mar 25 (W)	Ventilation	chp. 22 pp. 961-970

		<i>inflammation (910-911); autonomic nervous system (589-620); pH (58-60); reflex arcs (599)</i>	
	Mar 27 (F)	Exam 4 Covers lecture and on your own material 3/2-3/23 (7 lectures)	
		Last day to withdraw from semester courses ("W" on transcript)	
11	Mar 30 (M)	Gas Exchange, O ₂ transport <i>hemoglobin (722)</i>	chp. 22 pp. 970-979
	Apr 1 (W)	CO ₂ , Respiratory Pathologies <i>pH (58-60)</i>	chp. 22 pp. 979-983
	Apr 3 (F)	Easter Break – no classes	
12	Apr 6 (M)	Easter Break – no classes	
	Apr 8 (W)	Urinary System Anatomy <i>membrane transport (84-90); capillaries (814-816)</i>	chp. 25 pp. 1109-1125
	Apr 10 (F)	Urine Production <i>osmosis (86-87); capillaries (814-816)</i>	chp. 25 pp. 1119-1146
13	Apr 13 (M)	Regulation of Urine and Body Fluid <i>posterior pituitary (675-676); adrenal cortex (688-689)</i>	chp. 25 pp. 1119-1146
	Apr 15 (W)	Regulation of MAP and Urine Volume <i>blood flow and blood pressure (821-830)</i>	chp. 26 pp. 1119-1146
	Apr 17 (F)	Exam 5 Covers lecture material 3/25-4/13 (6 lectures)	
14	Apr 20 (M)	Water Balance; pH Balance <i>pH (58-60); control of respiration (967-969)</i>	chp. 26 pp. 1155-1179
	Apr 22 (W)	Digestive Processes; GI Anatomy <i>exocrine & endocrine glands (137-140); serous membranes (129-130)</i>	chp. 23 pp. 995-1047
	Apr 24 (F)	Accessory Digestive Organs and Digestion <i>exocrine & endocrine glands (137-140); enzymes (54); pH (58-60); organic molecules (61-74)</i>	chp. 23 pp. 995-1047
15	Apr 27 (M)	Large Intestines; GI Pathologies <i>osmosis and tonicity (86-87)</i>	chp. 23 pp. 995-1047
	Apr 29 (W)	Pancreas and Diabetes Mellitus <i>pH (58-60); carbohydrates (62-65); oxygen transport (975-979); control of respiration (967-969); tubular reabsorption (1128-1133)</i>	chp. 17 pp. 693-697
	May 1 (F)	Review	
	May 8 (F)	FINAL EXAM 1:30—3:30pm	

Laboratory Schedule

Wk #	Thu date	Lab Exercise	Quiz
1	1/15	Reflexes, Sensory Receptors, and Cranial Nerves	Quiz 1: Pre-lab quiz cranial nerves & Categorization of Sensory Receptors
2	1/22	Circulatory System Anatomy Day 1 Sheep Heart Cat Veins	Quiz 2: Post-lab quiz "Reflexes, Sensory Receptors, and Cranial Nerves" lab
3	1/29	Special Senses	Quiz 3: Pre-lab quiz "Special Senses" lab intro
4	2/5	Circulatory System Anatomy Day 2 Cat Thoracic Arteries Human Heart Model Human Cerebral Arteries	Quiz 4: CV Anatomy Day 1
5	2/12	Circulatory System Anatomy Day 3 Cat Abdominal Arteries Pig Organs	Quiz 5: 14 pt review CV Anatomy Day 1 & 2
6	2/19	Circulatory System Anatomy Day 4 Review	Quiz 6 :16 pt review CV Anatomy Day 1, 2, and 3
7	2/26	Cardiovascular Physiology	Quiz 7: Pre-lab quiz
8	Tue 3/3 (no lab on Thu)	Laboratory Exam: Cardiovascular Practical Tuesday, March 3 for all sections	
NO LAB—Spring Break			
9	3/19	Diagnostic Blood Tests	Quiz 8: Pre-lab quiz
10	3/26	Visit to Cadaver Lab	Quiz 9: "Diagnostic Blood Tests" lab
11	NO LAB—Easter Break		
12	4/9	Respiratory Physiology & Blood Typing	Quiz 10: Human organs
13	4/16	Urinalysis	Quiz 11: "Respiratory Physiology & Blood Typing" lab
14	4/23	Osmosis and Tonicity	Quiz 12: "Urinalysis" lab + pre-lab quiz
15	4/30	Optional review sessions - TBA	

Appendix 1: Participation and Collaboration Rubric

adopted from Kendra Hearn, PhD (U of Michigan, Ann-Arbor)

	2	3	4	5**
Active Listening*	Student has incurred 2 or more instances of unprofessional or inattentive behavior during class. On multiple occasions, s/he violates the Electronic Devices Policy. S/he often has side conversations that are distracting to those around him/her. S/he does not track the speaker with his/her eyes (e.g. head down on desk).	Students is typically professional and attentive during class. S/he uses technology for purposes not related to the course and/or in a way that is distracting (violating the Electronic Devices Policy). S/he has occasional side conversations that are sometimes distracting to those around him/her. S/he rarely tracks the speaker with his/her eyes or use non-verbal cues to engage with the speaker.	Student is always professional and attentive during class. S/he uses technology for the purposes of the course and is not distracting. S/he limits side conversations; those in which she may engage are always about what is currently occurring in the class. S/he often tracks the speaker with his/her eyes.	Student is always professional and attentive during class. S/he uses technology for the purposes of the course and is not distracting or easily distracted. S/he doesn't have side conversations. S/he routinely tracks the speaker with his/her eyes, and uses non-verbal cues to engage with the speaker. S/he uses techniques to ensure understanding, such as asking or answering questions.
Contributions to Discussion and Activities	Student's contributions are disrespectful or shows unwillingness to learn, or s/he does not contribute.	Student's contributions are respectful and inclusive. S/he may, however, dominate the 'air' time. Or his/her comments or questions possibly indicate that s/he only wants the participation points.	Student's contributions are respectful and inclusive. S/he watches his/her 'air' time by not dominating the discussion. But his/her comments may be tangential or confusing to the current direction of the group	Student's contributions are respectful and inclusive. They position him/her as an active learner of the topic. S/he watches his/her 'air' time by not dominating the discussion. His/her comments and questions often improve the thinking of the group.
Preparedness	Student exhibits minimal preparedness in that it is apparent that s/he has read little or none of the materials prior to class as evidenced by no references to the required materials during discussion. S/he does not bring appropriate notes.	Student exhibits moderate preparedness in that it is apparent that s/he has read some of the materials prior to class as evidenced by nominal references to the required materials and bringing appropriate notes.	Student exhibits sufficient preparedness in that it is apparent that s/he has read the materials prior to class by citing references to those materials during class. S/he brings appropriate notes to class.	Student exhibits good preparedness in that it is apparent that s/he has read all materials prior to class by accurately citing references to those materials during discussions and bringing annotated notes to class. It is clearly apparent that s/he has given depth of thought to the topic as his/her comments, questions, and ability to respond to questions.

* Merely attending class does not merit 5 out of 5 points.

** Asking questions is a type of contribution.

Appendix 2: Alignment with Program Learning Outcomes

The Human Anatomy and Physiology I & II sequence is offered through the Biology Department (Bio 1030 & 1040). Nursing, Applied Health Science, Health and Human Performance, Dietetics, and Nutrition programs require Bio 1030 & 1040, so the vast majority of students taking Bio 1030 & 1040 major in one of those programs. It does count as their Life Sciences FE option if a student were to change into a major that does not require the sequence. The following are one or two PLO(s) from each program that align(s) best with the Learning Outcomes of Bio 1030 & 1040:

Nursing:

- Inquire Faithfully: The student will demonstrate knowledge, skill, and behavior of the evidence-based practice of nursing which integrates growth in reasoning, analysis, decision-making, and the application of theory with the goal of advocating for others and/or self. This includes holistic nursing skills and the nursing process.

Applied Health Science:

- Describe the mechanisms (i.e. metabolic, physiologic, biomechanical, and developmental) by which physical activity aids in health care settings.

Health and Human Performance:

- Describe the mechanisms (i.e. metabolic, physiologic, biomechanical, and developmental) by which physical activity aids in health promotion, performance enhancement and disease prevention.

Dietetics:

- Apply critical thinking skills.

Nutrition:

- Demonstrate critical thinking skills and analytical abilities to identify and solve problems in nutritional science.
- Critically evaluate and interpret research for various life-cycle stages and develop practical approaches to address specific nutrition-related conditions and diseases within the life-span.