

	Biology 1030: Human Anatomy and Physiology I 1030-3 3 units Bio 1030L: Human Anatomy and Physiology I lab Lab sections 3A & 3B & 3C 1 unit
Fall 2026	

Lecture location & time: Latter Hall 01 MWF 11 am - 11:55 am * Note Dr. Flietstra's A&P class meets at the same time in Latter 101. Choi's classroom "Latter 01" is downstairs.	Instructor, Lecture and Labs 3A & 3B: Dr. Yoojin Choi Instructor, Lab 3C: Dr. Desdemona Whitley
Laboratory location & time: Sator Hall 117 section 3A: Thu 7:45 am – 10:45 am section 3B: Thu 11 am – 2 pm section 3C: Thu 2:30 pm – 5:30 pm	Choi Office Phone: (619) 849-2654
Final Exam: Fri Dec 18 10:30 am	Email: ychoi@pointloma.edu Dr. Whitley: dwhitley@pointloma.edu *3C students, please email both of us.
Office location and hours: Rohr Science 116 - 1st floor Rohr Science in the Biology Department Suite - I will try my best to be available at times that are convenient to you, at places that are convenient to you. Mon & Fri 10:30-11am in front of the classroom. Mon 12-1pm in my office. Wed 12-1:30pm in the Caf. Tue by appointment (probably Zoom). Thu after lab. But also, stop by my office and see if my door is open, which means you're welcome to come in and chat. 😊 - I want you to succeed in this course! Take ownership of your learning, and I will help to the best of my ability. If you have questions, shoot me an email. I can email back or set up a meeting – either Zoom or in person.	

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 1030

The first course of a two-semester sequence which examines the human body from an integrated perspective. Topics include an introduction to chemistry and cell function, tissue types, skeletal system, muscular system, and nervous system. 3 units

Co-requisite: Bio 1030L

This anatomy and physiology laboratory is a co-requisite for Bio 1030. Students enrolled in Bio 1030 must be enrolled in Bio 1030L, and vice versa. If Bio 1030 is dropped, Bio 1030L must also be dropped. Offered every year. Letter graded. Your grade for Bio 1030 and Bio 1030L will be calculated together and the same grade applied to both; see [Grading](#) below. 1 unit

Pre-requisite or Co-requisite: Che 1003 or Che 1052

The [college catalog](#) specifically states that a **pre- or co-requisite** for this course is one semester of college level chemistry (such as **Che 1003** or **Che 1052**). If you are unsure about whether you meet this requirement, please talk to me. Students who do not have evidence of prior completion or current enrollment in an appropriate chemistry class will be de-enrolled from this course in the first week.

Course Learning Outcomes

1. You will be able to describe cell structure and function, and explain the underlying chemical principles that determine cellular anatomy and physiology.
2. You will be able to identify body tissues, their functions, and common locations.
3. You will be able to identify the bones of the human body and their major structures.
4. You will be able to identify key muscles of the human and of the cat; and the attachments, innervation, and associated movements of the human muscles.
5. You will understand the basic anatomy and physiology of bones, skeletal muscle, and the central nervous system.
6. 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 (see [Tentative Lecture Schedule](#) below). Read the textbook both *before and after* the lecture. The following textbook is used both semesters of the Human Anatomy and Physiology sequence (Bio 1030 & 1040) by all professors; the dissection kit is also used both semesters.

- Betts, DeSaix and Johnson, *Anatomy and Physiology* (2nd ed.), OpenStax, 2022
<https://openstax.org/details/books/anatomy-and-physiology-2e>

Download the free PDF on your devices now. Do not count on online access during class.

Or you can get a hardcopy through the website, Amazon, or the bookstore. Many students prefer the hardcopy particularly in lab.

The following materials are required for work in various laboratories:

- Dissection kit (available at bookstore)
- Safety glasses (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 *at least once daily*. Adjust Canvas notification settings to what suits your needs, so that you will stay on top of your tasks without getting inundated with alerts.

Recommended Materials

These two items may be helpful in both semesters. No specific assignments come from these sources, but many past students have testimonials of their usefulness as extra study tools.

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

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 (and blood vessels next semester).

LomaBooks Instructions for Students

This course is part of our course material delivery program, [LomaBooks](#). The bookstore will provide each student with a convenient package containing all required physical materials; all digitally delivered materials will be integrated into Canvas.

You should have received an email from the bookstore confirming the list of materials that will be provided for each of your courses and asking you to select how you would like to receive any printed components (in-store pick up or home delivery). If you have not done so already, please confirm your fulfillment preference so the bookstore can prepare your [LomaBooks](#) materials.

Spiritual Care

Please be aware 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. I welcome your questions and prayer requests. "Office Hours" are drop-in time for students to have conversations about all topics, not just academics.

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](#).

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 other forms of discrimination, you can find more information on reporting and resources at www.pointloma.edu/nondiscrimination.

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. True learning takes hard work, so I am here to guide and support you. Extending the sports analogy, I'm your coach and your classmates are teammates, and we will learn together in community. I expect each of you to pull your weight and collaborate actively. Let us all help in each other's growth.

You are expected to come to class prepared, which requires you to read and learn *before* class. Of course, you're expected to keep studying and practicing *after* class, too. There will be a lot of interactive learning in both lecture and lab. Just like you can't prepare for a sports game only by looking at other people play, you cannot learn academically only by looking at me, videos, textbook or the provided notes. You have to practice and actively engage. Course structures exist to help you in that process.

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 [Lecture Schedule](#) below, 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 and memorize on your own outside of class time.

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

Taking Notes in Class:

Lecture outlines are provided on Canvas. Print and bring to class in an organized manner (e.g. three-ring binder), or access on a tablet device (in airplane mode), and take notes. I will try my best to video-capture every lecture and upload the recordings on Canvas as a studying tool.

- *Helpful Tip: Use different colored pens to take notes. E.g. pre-class skimming notes in pencil vs in-class notes in 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 hours for every credit hour or unit. Since Bio 1030 is a 4-unit course, you should be studying a minimum of 8 hours outside of class every single week, not only the week prior to an exam. This studying should also be spread out during each week, not only 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 both **memorize** and also **understand** the material. For example, many students' favorite technique for active memorizing is making and using flashcards. Make physical flashcards. Test yourself often. Shuffle the cards. Sort into 'done' vs 'work on' piles. Have someone else test you with flashcards.

To understand and apply the material, quiz each other and teach each other. We model these activities in class, so do it outside class too. 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; stand at a whiteboard and give a mini lecture on a topic, etc. Note that the best active methods of studying involve working together in community.

Additional Tools for Success:

Weekly Review Sessions will be offered by an experienced peer leader on Wednesday nights 8-10pm (location TBA) starting in Week 2. It's a first-come-first serve opportunity for all 200+ students taking Bio 1030. You don't have to arrive by 8pm and you don't have to stay the whole time. More information will be given in class.

Ryan Learning Center also provides tutoring, and peer tutors have been assigned to this course. For more information about the Tutorial Center's services and available resources:

- tutorialservices@pointloma.edu
- <https://www.pointloma.edu/offices/tutorial-services>

Assessment and Grading

Based on 1250 total points

Your grade for Bio 1030 and Bio 1030L will be calculated together and the same grade will be applied to both.

Lecture: 910 points

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

Laboratory: 340 points

- 1) 7 regular lab quizzes, lowest dropped (10 points/quiz) = 60 points
- 2) 2 big lab quizzes (14 points + 16 points) = 30 points
- 3) 3 lab worksheets (25 points/worksheet) = 75 points
- 4) Skeleton Practical exam = 75 points
- 5) Muscle Practical exam = 100 points

Your letter grade will be determined from your cumulative percent score as follows. There is no "rounding up":

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 and assessments are posted on Canvas. 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 will be 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 Grading (910 points 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 by Week 8 and included in your Midterm grade, and the remaining six will be entered at the end of the semester.

Absences: If your 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 if you have a planned absence (but you are not required to), and these are not considered excused absences by the University. A zero will be entered, but you can make up the five 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; see below.

Online Participation as makeup: Because it would be unfair to lose points for an excused absence or for being shy, there is an opportunity to make up lost points. For excused absences: Study with the lecture recording within three days of absence, then participate on the Canvas Discussion “Online Participation” within those three days. If you are making up for not speaking in class, you may do this any time before the due date for each Canvas Discussion Board.

Valid forms of Canvas Discussion Board participation include (a) asking a question about the material, (b) answering another student’s question from any of the past postings, (c) posing a question then reporting your own findings, or (d) posting a helpful comment. If you opt for (c) or (d), 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 length of 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.

Friday 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.

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 pop quizzes, in-class activities, homework assignments, etc. Not every in-class activity such as a pop quiz is included in your semester grade, I reserve the right to decide if it will count or not. Assume that any in-class activity can count toward your grade, and do your best every time. Some may only be for additional practice, but all practice is for your learning benefit.

Most homework assignments are due on Canvas on Tuesday night. 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.

Learning Outcome Reflection:

At the end of the semester, you will be asked to reflect on what you learned in Bio 1030 in relation to both content knowledge ([Course Learning Outcomes](#)) and study skills. Thinking about your own learning (metacognition) is an important intellectual ability that we need to practice. See Canvas for more details.

Unit Exams:

A non-cumulative “unit” exam worth 100 points will be given according to the [Lecture Schedule](#) below. All lecture exams are given on Fridays. Exams can only be rescheduled for an official University obligation (requiring prior official notification), upon student request. Any exam that must be rescheduled for other reasons will be given at a 10% reduction per day (for example, if you score 85 on a makeup exam taken on Monday, a 76.5 is recorded; if you took that on Tuesday, a 68 is recorded).

Each exam has 40 multiple-choice questions (80 pts total) and 20 points worth of short answer/essay questions. Quizzes and exams are taken on paper.

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, December 18 at 10:30am.

Lab Grading (340 points total)

Attendance:

Attendance in laboratory is mandatory. You are expected to stay for the **entire scheduled laboratory period** unless the instructor dismisses the whole class early. 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 25 points subtracted from their lab practical score for each laboratory dissection period missed.

If participation in a school-sponsored activity prevents you from attending 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 another instructor to fit you in) and should not be viewed

as an automatic privilege. All labs are on Thursdays, which is the last day of A&P labs; which means there will be no makeup opportunity for an absence due to illness on the day of the lab.

Laboratory Quizzes:

As indicated on the “[Laboratory Schedule](#)” below, quizzes will be administered at the start of most labs. The topic of the quiz is indicated in the schedule. Note that two lab quizzes are worth more than the others (14-point and 16-point quizzes to prepare for the Muscle Practical) and will not be dropped. If you are late for lab, you will have less or no time to take the quiz. Missed quizzes cannot be made up.

Laboratory Worksheets:

Prepare for the laboratory by reading the materials ahead of time. Laboratory PDFs containing instructions on what to bring to lab, background information, procedures, and worksheet will be posted on Canvas at least one week prior to the lab. Canvas posting will specify which pages to print and bring to each lab, such as the worksheet portion of the lab.

Some labs require that you complete a worksheet in class. In that case, the 25-point worksheet will be due at the end of the lab class period. You **cannot** submit a worksheet for a lab you did not attend. It is important that you recognize that these laboratory worksheets must **reflect your own work**, and not someone else’s. You should discuss the questions 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.

Skeleton Practical:

A “practical” is an exam in which you demonstrate knowledge by doing something. In the Skeleton Practical, you will write down names of bones and bone structures while moving around the lab. More information will be given in lab prior to the practical. The Skeleton Practical is given during the normal lab time and is worth 75 points.

Muscle Practical:

The Muscle Practical is scheduled for **all** laboratory sections on **Tuesday, November 17**. (Thu Nov 19 lab is canceled.) The Muscle Practical will be administered in one-hour blocks during school hours. There will be a sign-up process prior to the exam. The Muscle Practical 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 lab attire is required at all times in Biology lab spaces.** Students who are not wearing proper clothing and shoes will be asked to leave before the start of the lab.
 - Proper lab attire means **having as much skin covered as you can from your shoulders to your toes.**
 - **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.
- **Tie long hair and remove any loose-hanging accessories** (e.g. lanyard, necklace, hoodie strings, bracelets).
- **Students must wear safety glasses whenever they are handling dissection material.**
- At the end of each laboratory period make sure that the equipment you've used, has been **cleaned and returned** to its appropriate place. Wipe down your workspace with the green cleaning solution and paper towel. Points are deducted for messes not cleaned up.

Technology Policy

On occasion, we will use laptop computers in the lab (read the lab packet ahead of time to know when it is allowed). During lecture, however, internet-accessing devices interfere with your education and distract your neighbors. Numerous research studies have confirmed that classroom laptop and phone use can be detrimental to learning. Students do not learn as well when they type their notes as opposed to hand-writing. Easy access to the internet is distracting. For these reasons, I do not allow the use of laptops, phones, or other internet-accessing electronic devices in the classroom. An exception to the “no device” rule is writing on your tablet device (like Apple Pen). Do NOT use your phone to “take notes”.

Final Examination Policy

Successful completion of this class requires taking the final examination on its scheduled day. The final examination schedule is posted here: [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.

Artificial intelligence (AI) policy

You are allowed to use Artificial Intelligence (AI) tools (e.g., ChatGPT, Gemini, GrammarlyGo, Perplexity, etc.) in this course. In fact, we will engage it actively. Any work that utilizes AI-based tools must be clearly identified as such, including the specific tool(s) used. Please use the following sources to cite your AI use. 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 by the professor 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.

While I make my best effort to record every lecture, please understand that sometimes technology fails.

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, 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.

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. See [Appendix 3](#) for details.

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 two practical exams. Since these 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.

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](#). 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, contact Counseling Services at counselingservices@pointloma.edu or [consult the list of campus pastors](#).

If you (or someone you know) has experienced other forms of discrimination or bias, you can find more information on reporting and resources here: [Nondiscrimination and Anti-harassment Policy](#).

Academic Accommodations Policy

PLNU is committed to providing equal opportunity for participation in all its programs, services, and activities in accordance with the Americans with Disabilities Act (ADA). 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 619-849-2533). Once a student’s eligibility for an accommodation has been determined, the EAC will work with the student to create an Accommodation Plan (AP) that outlines allowed accommodations. Professors are able to view a student’s approved accommodations through Accommodate.

PLNU highly recommends that students speak with their professors during the first two weeks of each semester about the implementation of their AP in that particular course. Accommodations are not

retroactive so clarifying with the professor at the outset is one of the best ways to promote positive academic outcomes.

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.

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.

General Education Mission

PLNU provides a foundational course of study in the liberal arts informed by the life, death, and resurrection of Jesus Christ. In keeping with the Wesleyan tradition, the curriculum equips students with a broad range of knowledge and skills within and across disciplines to enrich major study, lifelong learning, and vocational service as Christ-like participants in the world's diverse societies and culture.

General Education Learning Outcomes

General Education Learning Outcome (GELO's) are not assessed in the course.

Lecture and Lab Schedules

Topic 1	Chemistry and Cell Biology
Topic 2	Histology
Topic 3	Skeletal Anatomy and Physiology
Topic 4	Muscular Anatomy and Physiology
Topic 5	Nervous System

Tentative Lecture Schedule				
1	Aug 31 (M)	Introduction to Anatomy and Physiology Elements and Atoms, and Water	chp. 1 chp. 2	pp. 7-31 pp. 39-46
	Sep 2 (W)	Chemical Bonds and Reactions; Water and pH	chp. 2	pp. 47-61
	On Your Own: Anatomical Terms and Elements			
	Sep 4 (F)	Aqueous Solutions, Cytoplasm, Diffusion & Osmosis	chp. 2 chp. 3	pp. 55-56 pp. 85-88, 97-98

2	Sep 7 (M)	HOLIDAY: LABOR DAY		
	Sep 9 (W)	Organic Chemistry; Membrane Proteins	chp. 2 chp. 3	pp. 61-74 pp. 83-85
	Sep 11 (F)	Cell Membranes, Vesicles; Organelles	chp. 3 chp. 4	pp. 82-96 p. 131-133
3	Sep 14 (M)	Nucleus and DNA; Transcription and Translation	chp. 3	pp. 98-107
	Sep 16 (W)	Genetic Inheritance	chp. 28	pp. 1256-1265
	Sep 18 (F)	Exam 1 <i>Covers lecture & on your own material 8/31 —9/14 (6 lectures)</i>		
4	Sep 21 (M)	Genetic Inheritance	chp. 28	pp. 1256-1265
	Sep 23 (W)	Histology; Epithelial Tissue	chp. 4	pp. 126-140
	Sep 25 (F)	Connective Tissue	chp. 4	pp. 140-147
5	Sep 28 (M)	Serous Membrane Integumentary System	chp. 1 chp. 5	pp. 26-28 pp. 163-170
	Sep 30 (W)	Integumentary System	chp. 5	pp. 171-183
	Oct 2 (F)	Bone Classifications & Histology	chp. 6	pp. 191-205
6	Oct 5 (M)	Bone Development and Homeostasis	chp. 6	pp. 206-220
	Oct 7 (W)	Articulations	chp. 8	pp. 313-332
	Oct 9 (F)	Exam 2 <i>Covers 9/16—10/5 (8 lectures)</i>		
7	Oct 12 (M)	Synovial Joints	chp. 9	pp. 320-325
	Oct 14 (W)	Specific Synovial Joints; Joint Disorders	chp. 9	pp. 323-327, 332-344
	Oct 16 (F)	Gross Muscle Anatomy	chp. 11	pp. 395-403
	On Your Own: Gluteal and Posterior Hip Muscles			
8	Oct 19 (M)	Muscle Histology and Cytology	chp. 10	pp. 357-362, 381-386
	On Your Own: Anterior Thigh Muscles; Posterior Thigh Muscles			
	Oct 21 (W)	Excitation and Sliding Filament Mechanism	chp. 10	pp. 362-369
	On Your Own: Medial Thigh Muscles			
	Oct 23 (F)	HOLIDAY: FALL BREAK		
9	Oct 26 (M)	Motor Units and Force Generation	chp. 10	pp. 371-377
	On Your Own: Posterior Leg Muscles; Anterolateral Leg Muscles			
	Oct 28 (W)	Walking	chp. 11	pp. 432-439
	On Your Own: Posterior Shoulder Girdle Muscles; Anterior Shoulder Girdle Muscles			
	Oct 30 (F)	Exam 3 <i>Covers lecture & on your own material 10/7—10/26 (7 lec plus 5 pages (p.2-6) of "On Your Own" muscles)</i>		

10	Nov 2 (M)	Muscle Metabolism	chp. 10 chp. 24	pp. 369-371 pp. 1063-1086
	On Your Own: Intrinsic Shoulder Muscles			
	Nov 4 (W)	Skeletal Muscle Performance; Muscle Fiber Types	chp. 10	pp. 377-381
	On Your Own: Anterior Arm Muscles; Posterior Arm Muscles			
	Nov 6 (F)	Muscle Pathologies		
On Your Own: Anterior Forearm Muscles; Posterior Forearm Muscles				
11	Nov 9 (M)	Scapular Movement Shoulder (Arm) Movement Elbow (Forearm) Movement Wrist Movement	chp. 11	pp. 421-429
	On Your Own: Anterolateral Abdominal Muscles; Neck Muscles			
	Nov 11 (W)	Spinal Nerves	chp. 13	pp. 518-526
	Nov 13 (F)	Exam 4 <i>Covers lecture & on your own material 10/28—11/9 (5 lec plus all “On Your Own” muscles)</i>		
12	Nov 16 (M)	Neurohistology and Neurophysiology	chp. 12	pp. 452-471
	Nov 17 (Tu)	Laboratory Exam 2: Muscle Practical—all sections		
	Nov 18 (W)	Action Potentials	chp. 12	pp. 468-477
	Nov 20 (F)	Synapses and Neurotransmitters	chp. 12	pp. 478-482
13	Nov 23 (M)	Central Nervous System: Brain 1	chp. 13	pp. 493-508
	Nov 25-27	HOLIDAY: THANKSGIVING BREAK		
14	Nov 30 (M)	Central Nervous System: Brain 2	chp. 13	pp. 493-508
	Dec 2 (W)	CNS: Spinal Cord and Protection of the CNS	chp. 13	pp. 509-510, 513-517
	Dec 4 (F)	Exam 5 <i>Covers 11/11—11/30 (6 lectures)</i>		
15	Dec 7 (M)	Central Nervous System Disorders	chp. 12 chp. 13	pp. 464-465(Disorders) pp. 510-511, 515, 517-518 (Disorders)
	Dec 9 (W)	Cranial Nerves	chp. 13	pp. 522-525
	Dec 11 (F)	last quiz and wrap-up		
	Dec 18 (W)	FINAL EXAM, 10:30am—12:30pm		

Laboratory Schedule for Bio 1030, Fall 2026

Week of:	Thu	Lab Exercise	Quiz
Aug 31-Sep 4	9/3	Introduction Skeletal System: Appendicular Skeleton	<i>Quiz1: bone terminology (pre-lab quiz)</i>
Sep 7-11	9/10	Basic Chemical Principles	<i>Quiz2: appendicular skeleton</i>
Sep 14-18	9/17	Skeletal System: Axial Skeleton	<i>Quiz3: basic chemical principles</i>
Sep 21-25	9/24	Skeleton Review Lab	<i>Quiz4: axial skeleton</i>
Sep 28-Oct 2	10/1	Laboratory Exam 1: Skeleton Practical Cat Dissection: Muscles: Lower Extremity 1	(no quiz)
Oct 5-9	10/8	Cat Dissection: Muscles: Lower Extremity 2	(no quiz)
Oct 12-16	10/15	Cat Dissection: Muscles: Upper Extremity 1 Cadaver Examination: Muscles: Lower Extremity	<i>Quiz5: muscles of cat lower extremity</i>
Oct 19-23	NO LAB—FALL BREAK		
Oct 26-30	10/29	Muscle Physiology & Function	<i>Quiz (14 pt quiz):</i> ·cat muscles—upper extremity 1 ·human muscles—lower body
Nov 2-6	11/5	Cat Dissection: Muscles: Upper Extremity 2 Cadaver Examination: Muscles: Upper Extremity	<i>Quiz 7: muscle physiology & function</i>
Nov 9-13	11/12	Cat Dissection: Muscles—Review Cadaver Examination: Muscles—Review	<i>Quiz (16 pt quiz):</i> ·all cat and human muscles
Nov 16-20	TUE 11/17	Laboratory Exam 2: Muscle Practical Tuesday, November 17 for all sections	
Nov 23-27	NO LAB—THANKSGIVING BREAK		
Nov 30-Dec 4	12/3	Brain and Neurological Exams	<i>Quiz9: brain anatomy (pre-lab quiz)</i>
Dec 7-11	Optional review sessions TBD		

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.

Appendix 3: PLNU Academic Policies

❖ Course Drop and Course Withdrawal Policy

- Course Drop
 - Dropping a course means the student should no longer attend. The drop action results in the course being removed from the transcript.
 - The course drop deadline is at the end of Week 2 (Sep 11 in Fall 2026).
- Course Withdrawal
 - Students may still withdraw from a class(es) through the withdrawal deadline. Students who withdraw from a class(es) will have a "W" on their transcript for the respective course(s).
 - The course withdrawal deadline is at the end of Week 10 (Nov 6 in Fall 2026).

❖ Academic Behavior Policy <https://pointloma-public.courseleaf.com/tug-catalog/academic-general-policies/#academicbehavior>

❖ Academic Honesty <https://pointloma-public.courseleaf.com/tug-catalog/academic-general-policies/#academichonesty>

❖ Academic Standing <https://pointloma-public.courseleaf.com/tug-catalog/academic-general-policies/#academicstanding>

- ❖ Class Attendance <https://pointloma-public.courseleaf.com/tug-catalog/academic-general-policies/#classattendance>
- ❖ Course Drop dates
 - updated to be in alignment with the 100% refund date
 - see <https://www.pointloma.edu/offices/records/traditional-undergraduate-records>
 - Fall 2026: Last day to add / drop semester courses - Friday, September 11
- ❖ Grading: [W] Withdrawn <https://pointloma-public.courseleaf.com/tug-catalog/academic-general-policies/#grading>
- ❖ Non-Registered Individuals
<https://pointloma-public.courseleaf.com/tug-catalog/academic-general-policies/#nonregistered>
- ❖ Ombudsperson - Student Advocacy
<https://pointloma-public.courseleaf.com/tug-catalog/academic-general-policies/#ombudsperson>
- ❖ Withdrawal from a Course
 - <https://pointloma-public.courseleaf.com/tug-catalog/academic-general-policies/#withdrawal>