POINT 1902 LOMA NAZARENE UNIVERSITY	**Department of Biology** **BIO 1030 Human Anatomy and Physiology 1** **3 units Lecture** **1 Unit Lab**
Fall 2026	

Meeting days: Lecture: M, W, F Lab: Tuesday and Wednesday evenings	**Brandon Sawyer, PhD** **Professor of Kinesiology and Biology** **Associate Dean, College of Health Sciences**
Meeting times: Lecture: 1:30-2:25pm Labs: Taught by Dr. Whitley 2A: Tuesday 6:00pm - 9:00pm 2B: Wednesday 6:00pm - 9:00pm	**Office location and hours:** **Kinesiology Office #5** ***Office hours:** Click here to sign up!

Meeting locations: Lecture: Point Loma Campus Latter Hall Room 101 Lab: Sator 117	**Dr. Sawyer's email: bsawyer@pointloma.edu** **Dr. Whitley's email: dwhitley@pointloma.edu**
Final Exam: Monday Dec 14 1:30-4pm	**Dr. Sawyer's Phone: 619-849-2283**

*If you have any questions about the material in this course, feel free to stop by during my office hours as listed above or as listed on canvas for my zoom office hours. Either set up an appointment or simply drop by. I do get meetings scheduled during these office hours so I am not always available at these times. I will also be in my office at other, unscheduled times. If my office hours don't work for your schedule, e-mail or stop by and we can set up an appointment to meet.

My Commitment to you

I am here to help you in whatever way you need. Feel free to come to me with questions about the course, your life, your future, your career, or anything else that comes up. **You all matter greatly to me. Secondly, you ALL belong in this class.

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.

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.

COURSE DESCRIPTION

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. Does not count for credit in the Biology major. Lecture and lab. Offered every year. This course fulfills the Biological Science GE requirement.

Pre-requisite or Co-requisite:

The University 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). Students who do not have evidence of prior completion or current enrollment in an appropriate chemistry class will be de-enrolled from this course.

Student Learning Outcomes:

1. Students will be able to describe cell structure and function, and explain the underlying chemical principles that determine cellular anatomy and physiology.
2. Students will be able to identify body tissues, their functions, and common locations.
3. Students will be able to identify the bones of the human body and their major structures.
4. Students 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. Students will understand the basic anatomy and physiology of bones, skeletal muscle, and the central nervous system.
6. Students 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.

REQUIRED TEXTS AND RECOMMENDED STUDY RESOURCES

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 for this class will be used both semesters of the Human Anatomy and Physiology sequence (Bio 1030 & Bio 1040); the dissection kit and iClicker2 are also used both semesters.

Lecture Materials

1. Betts, DeSaix and Johnson, *Anatomy and Physiology* (2nd ed.), OpenStax, 2022.

   This is available as a free etext or pdf at

   https://openstax.org/details/books/anatomy-and-physiology-2e

   Or you can order a hardcopy of the text by clicking the link on the above

page, through the bookstore, or through Amazon.

ISBN-10: 1938168135

ISBN-13: 978-1-938168-13-0

2. iClicker 2 remote

Laboratory Materials

1. Dissecting kit (available at bookstore)
2. Old shirt or Lab coat or 'scrubs' for dissecting work
3. Safety Glasses or Safety Goggles. [*This is a 2023 mandate for the department for all dissection activities*]. If you happen to be taking Chem Lab *concurrently* with this lab, the Chem lab safety glasses you will purchase are just fine for dissection. However, a *better option* is a pair of liquid splash rated goggles **[ANSI-Z87 rated]** for maximum protection. There are many vendors on Amazon that sell them for ~$10 to $30. For example: HexArmor VS350 w/cloth strap , HexArmor VS350 w/neo strap , HexArmor LT300 , HexArmor MX350 , SolidWork Safety Goggles , DeWalt safety goggles , 3M splash goggles , 3M anti-fog . All of these Safety goggles are rock solid to protect your eyes from an accidental splash or spray from the dissection experience.

Recommended Materials

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

1. Krieger, A Visual Analogy Guide to Human Anatomy & Physiology, Morton, 2013
2. Hansen, *Netter's Anatomy Coloring Book*, Elsevier, 2010.

COURSE CREDIT HOUR INFORMATION

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class meets the PLNU credit hour policy for a 3 unit class delivered over 15 weeks. Specific details about how the class meets the credit hour requirement can be provided upon request. (Based on 37.5 hours of student engagement per credit hour.)

LEARNING OPPORTUNITIES AND ASSIGNMENTS

Reading:

Reading the assigned pages in the textbook is essential for success in this course. The pages assigned for each section are noted in the class schedule and should be read before the class that we are covering that section. Reading before class will give you context for the lecture and

classroom participation. This will ensure you are giving yourself the best chance for success in this course.

Taking Notes:

Using your printed note packet from the bookstore you can take notes on the pages. For each class I will also make the PowerPoint presentation available on Canvas so you can have it in color as well. If you prefer to take notes on a tablet with a stylus you can do that as long as using that device in class does not become a distraction. If you would like to record the lectures to aid in the accuracy of your notes feel free to do so.

Studying:

It is highly recommended that you study at least 2-3 hours for every credit hour. Since Bio 1030 is a four-credit 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 Friday's quiz. While studying includes reading the assigned text, you should concentrate on the lecture material presented in class. Make sure that you not only ***memorize*** the information, but that you also ***understand*** the material.

**Tutors have been assigned to this class and they are available for individual and group tutoring.

Classroom Participation:

We will use the iClicker remote on all days of class. I will ask you questions that you will either work on as a group or individually. You will input your answers into the clickers and send them to me. You will receive points based on your participation, not based on answering the question correctly. There are 30 total class days (where participation points are available) and you receive 2 points for each day you participate in the class via clicker responses. You must answer all clicker questions for the day to get the participation points. The total number of participation points is 40 (each day is worth 2 points and only 20 days are needed to get full credit). This gives you some grace for missing class.

Reading Quizzes:

On **all Mondays (except the first week and TBL days)** of this semester you will complete a simple 5 point quiz in the first 5 minutes of class. The quiz will be based on the textbook reading for the week ahead. You will turn in your answers in person on your clicker.

Lecture Quizzes:

On the Fridays that do not have an exam, a **10-point canvas quiz** will be taken during the first 10 minutes of class. These quizzes will consist of multiple choice, true and false, short answer and hybrid questions. **Canvas quizzes are best taken using Chrome as your browser**. The

quiz will be over 2 days of class. Although there are 9 quizzes throughout the semester only 8 of these will be counted towards your score. The lowest quiz grade will be dropped. There are no make-up quizzes and no late quizzes. If you are not in class for a quiz you will receive a zero and that is the one that can be dropped.

Exams:

The dates on which exams will be administered are indicated in the lecture schedule below. Exams can only be rescheduled with advance notice and with a valid reason, such as illness (requiring a signed statement from a physician) or a school-related activity (requiring prior notification from the administration and the student). **The final cannot be rescheduled**.

1. Lecture exams will cover the material given in class up through the Monday preceding each exam.
2. Each exam will be composed of multiple-choice, true and false, and hybrid questions.
3. All exams will be administered through Canvas using Honorlock.
4. We will briefly go over tough questions on the exams in class or lab after all students have taken the exam. Use this opportunity to find out what areas you do not understand and need to further study. Remember, the **final is cumulative**.

Team Based Learning (TBL):

TBL is an innovative teaching method that has proven to improve learning. You will all be placed into teams at the beginning of the semester. We will have 5 TBL days in which you will study a lesson online before class, take a short quiz by yourself (iRAT) on that material when you arrive to class, and then take the same quiz with your team (tRAT). We will follow up for the rest of the class with some exercises based on that material that you just learned.

Laboratory

Attendance:

Attendance is mandatory. You are expected to stay for the **entire scheduled laboratory period** unless dismissed by the instructor. 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 attend a dissection lab will have 25 points subtracted from their lab practical score for each laboratory dissection period missed. If participation in a school-sponsored activity or illness prevents you from attending your scheduled lab section during a particular week you *might* be able to attend another lab section during that same week. Such a switch requires the **prior** permission of the lab instructor and should not be viewed as an automatic privilege.

Laboratory Handouts:

Prepare for the laboratory exercise by reading the materials supplied ahead of time. Laboratory exercises will be posted on Canvas (canvas.pointloma.edu) at least one week prior to the lab.

When downloading documents from Canvas it often works better to use *Chrome* rather than *Internet Explorer or Firefox*. If possible, save a tree by printing these lab hand-outs as double-sided copies.

Laboratory Quizzes:

As indicated on the lab schedule, quizzes will be administered at the start of most laboratory sections. If you are late for lab, you will not be given the opportunity to take any missed quiz. I will drop the lowest 10 point lab quiz from your final score. I will not drop either the 14 or 16 point quiz.

Muscle Practical:

The muscle laboratory practical is scheduled for all laboratory sections (regardless of normally scheduled day and time) on the same Tuesday, see the lab schedule. The laboratory practical will be administered in the one-hour blocks during normal school hours. Prior to the exam, you will be asked to indicate which time(s) are amenable to your schedule. If you anticipate conflicts, please do your best to clear them prior to the muscle labs. The muscle laboratory practical will be worth **100 points**.

Laboratory Assignments:

Laboratory assignments will be due at the end of the lab period. You **cannot** hand in a laboratory write-up 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 can—and should—discuss the assignment with your classmates, but you cannot copy their answers. Students who hand in identical assignments will not be given any credit for that particular assignment.

Laboratory Safety and Clean-Up:

- No food (including gum) or water in the laboratory.
- Keep all backpacks and other personal materials completely under the lab bench, such that no one could possibly trip over these items. (The cubbies are for cat storage.)
- **Enclosed shoes are mandatory. Open-toed shoes, clogs, or sandals are not permitted. You also cannot wear shoes that expose the top of the foot.**
- **On dissection days:**
    - **Students must wear safety glasses and clothing that covers as much skin as you can from your shoulders to your toes. This is for your safety.**
    - Wear a lab coat or old clothing that you do not mind getting dirty. Tie long hair and remove or tuck in any loose-hanging accessories (e.g. lanyard, necklace, hoodie strings, bracelets). Bring a writing utensil that you don't mind getting dirty from the cat preservatives. This is to protect you and your belongings.

· At the end of each laboratory period make sure that your table and the equipment you've used have been **cleaned and returned** to its appropriate place. Points are deducted for messes not cleaned up.

COURSE POINTS AND GRADING

Based on an expected <u>1215 total points</u>

Your most up to date grade in the class will always be available for your viewing on canvas. As soon as I finish grading an assignment or exam I will post it to canvas.

Lecture points: **880 points**

1. 5 non-cumulative exams (100 points/exam) = 500 points
2. 9 quizzes (10 points/quiz) = 80 points (The lowest quiz grade is dropped)
3. 1 final, cumulative exam = 150 points
4. Classroom participation (graded via iClicker) = 40 points
5. 10 Reading quizzes (5 points/assignment, I drop the lowest) = 45 points
6. Team Based Learning = 60 points

Laboratory points: **350 points**

1. 9 lab quizzes (7 quizzes = 10 points/quiz [I drop the lowest of these]; 2 quizzes = 14 and 16 points, these can't be dropped) = 90 points
2. 3 lab exercises (25 points/exercise) = 75 points
3. skeleton practical exam = 75 points
4. muscle practical exam = 100 points

Final grades will be posted within one week of the end of the class. Grades will be based on the following:

A	B	C	D	F
A 93.5-100	B+ 87.5-89.4	C+ 77.5-79.4	D+ 67.5-69.4	F Less than 59.4
A- 89.5-93.4	B 83.5-87.4	C 73.5-77.4	D 63.5-67.4	
	B- 79.5-83.4	C- 69.5-73.4	D- 59.5-63.4	

Course and PLNU Policies:

Electronic Devices in Class:

Computers and mobile devices can become a distraction as they also can enable activities other than note-taking. These activities are not only a distraction to you, but they are also a distraction to the students around you. Therefore, no laptop computers are allowed to be used in class except for exams. I do allow note taking on tablets with a stylus. These must be down on your desk like a notebook.

Communication:

Email will be the main form of communication used by the professor outside of class. Students are expected to check their @pointloma.edu email at least on a daily basis. If you know of issues with your @pointloma.edu account please notify the professor immediately. Any information I communicate via email I will expect you to know.

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.

INCOMPLETES AND LATE ASSIGNMENTS

All assignments are to be submitted/turned in by the beginning of the class session when they are due—including assignments posted in Canvas. Incompletes will only be assigned in extremely unusual circumstances.

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 Schedules site. 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 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 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.

PLNU ACADEMIC ACCOMMODATIONS POLICY

While all students are expected to meet the minimum standards for completion of this course as established by the instructor, students with disabilities may require academic adjustments, modifications or auxiliary aids/services. At Point Loma Nazarene University (PLNU), these students are requested to register with the Disability Resource Center (DRC), located in the Bond Academic Center (DRC@pointloma.edu or 619-849-2486). The DRC's policies and procedures for assisting such students in the development of an appropriate academic adjustment plan (AP) allows PLNU to comply with Section 504 of the Rehabilitation Act and the Americans with Disabilities Act. Section 504 prohibits discrimination against students with special needs and guarantees all qualified students equal access to and benefits of PLNU programs and activities. After the student files the required documentation, the DRC, in conjunction with the student, will develop an AP to meet that student's specific learning needs. The DRC will thereafter email the student's AP to all faculty who teach courses in which the student is enrolled each semester. The AP must be implemented in all such courses.

If students do not wish to avail themselves of some or all of the elements of their AP in a particular course, it is the responsibility of those students to notify their professor in that course. PLNU highly recommends that DRC students speak with their professors during the first two weeks of each semester about the applicability of their AP in that particular course and/or if they do not desire to take advantage of some or all of the elements of their AP in that course.

SEXUAL MISCONDUCT AND DISCRIMINATION

Point Loma Nazarene University 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 pointloma.edu/title-ix

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. In some courses, a portion of the credit hour content will be delivered **asynchronously** and attendance will be determined by submitting the assignments by the posted due dates. See Academic Policies in the Undergraduate Academic Catalog. If absences exceed these limits but are due to university excused health issues, an exception will be granted.

Asynchronous Attendance/Participation Definition

A day of attendance in asynchronous content is determined as contributing a substantive note, assignment, discussion, or submission by the posted due date. Failure to meet these standards will result in an absence for that day. Instructors will determine how many asynchronous attendance days are required each week.

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.

If students have questions, a desire to meet with the chaplain or have prayer requests you can contact the Office of Spiritual Development

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 Human Anatomy and Physiology, all of 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 diseases, death, sex, using human cadavers, and animal specimens. If you encounter a topic that is intellectually challenging for you, it can manifest in feelings of discomfort and upset. In response, I encourage you to come talk to me or your friends or family about it. Class topics are discussed for the sole

purpose of expanding your intellectual engagement in the area of anatomy and physiology, and I will support you throughout your learning in this course.

PLNU 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.

PLNU Academic Behavior Policy

Both faculty and students at Point Loma Nazarene University have the right to expect a safe and ordered environment for learning. Students are expected to take the initiative to learn and conduct themselves in a mature and civil manner in the classroom environment. Any student behavior that is disruptive or threatening is a serious affront to Point Loma Nazarene University as a learning community. Students who fail to adhere to these behavioral standards may be subject to disciplinary action, including removal from class or further university sanctions. For a full definition of disruptive behavior, response procedures, and the appeal process, please consult the Academic Behavior Policy in the University Catalog.

Artificial Intelligence (AI) Policy

You are allowed to use Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) to generate ideas, but you are not allowed to use AI tools to generate content (text, video, audio, images) that will end up in any work submitted to be graded for this course. If you have any doubts about using AI, please gain permission from the instructor.

USE OF TECHNOLOGY

In order to be successful in the online environment, you'll need to meet the minimum technology and system requirements; please refer to the *Technology and System Requirements* information. Additionally, students are required to have headphone speakers compatible with their computer available to use. If a student is in need of technological resources please contact student-tech-request@pointloma.edu.

Problems with technology do not relieve you of the responsibility of participating, turning in your assignments, or completing your class work.

Tentative Course Schedule with Topics, Assignments, and Readings