

POINT¹⁹**LOMA**⁰²
NAZARENE UNIVERSITY
Biology Department

Bio 1030: Human Anatomy and Physiology 1
section 1
3 units

Bio 1030L: Human Anatomy and Physiology 1 lab
sections 1a, 1b, 1c
1 unit

Point Loma Nazarene University
Fall 2023

instructor:	Dr. Rebecca J. Flietstra
office:	1 st floor Rohr Science in the Biology Department Suite
e-mail:	rflietst@pointloma.edu
lecture time/location:	Latter 101 MWF: 11:00 a.m.—11:55 p.m.
laboratory time/location:	Sator Hall 117 section 1a: Tu, 7:45 a.m.—10:45 a.m. section 1b: Tu, 10:55 a.m.—1:55 p.m. section 1c: Tu, 2:05 p.m.—5:05 p.m.
final exam:	Friday, December 15, 10:30 a.m.—1:00 p.m.
office hours:	MWF: 1:00—2:30 p.m.

I want you to do well in this course. Towards that goal, I encourage questions during lectures and labs. If you have questions outside of class, feel free to email me. I can email an answer or set up a zoom meeting. I prefer to meet during office hours, but can meet at other times, depending on my schedule.

Foundational Explorations 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: 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. 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 in doubt 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.

Student 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.

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 for this class 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.

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-13: 978-1-71149-406-7

The following materials are required for work in various laboratories:

- Dissecting kit (available at bookstore)
- Safety glasses (also used in chemistry classes)
- Old shirt or coat for dissecting work (recommended, not required)

For this course you will need to access Canvas:

- Canvas.pointloma.edu

This website will be your source for many handouts and course activities, including all lecture and laboratory handouts, online quizzes and course exams.

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.

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

Evaluation:

Based on an expected 1225+ total points

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

Lecture points: **840+ points**

- 1) 5 non-cumulative exams (100 points/exam) = 500 points
- 2) 6 quizzes (15 points/quiz) = 90 points
- 3) 20-25 on-line quizzes on MAP (5 points/quiz) = 100-125 points
- 4) one final, cumulative exam = 150 points
- 5) up to 100 points possible from additional assignments or quizzes

Laboratory points: **385 points**

- 1) 10 lab quizzes (10 points/quiz + 10 points) = 110 points
- 2) 4 lab exercises (25 points/exercise) = 100 points
- 3) skeleton practical exam = 75 points
- 4) muscle practical exam = 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

Extra Credit:

Although you only need to take six quizzes for class credit, up to nine quizzes (each worth 15 points) will be administered during the semester. When calculating your grades, every third quiz will be considered “extra credit”, as reflected in your cumulative score. By taking all of the quizzes (and doing well), you could potentially earn 135 points out of 90 points. This is the only extra credit offered during the semester.

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](#).

Lecture Participation:

Taking Notes:

For each topical section I will make an outline available on Canvas (canvas.pointloma.edu) at least two days prior to the first lecture for that topic. If possible, save a tree by printing these outlines as double-sided copies.

Studying:

In the interest of providing sufficient time to accomplish the stated Course Learning Outcomes, this class (lecture and lab) meets the PLNU credit hour policy for a 4 unit class delivered over 15 weeks. It is highly anticipated that students will spend a minimum of 37.5 participating hours per credit hour on their coursework. For this course, students will spend an estimated 150 total hours meeting the course learning outcomes. Since Bio 1030 + Bio 1030L are worth four credits, **you should be studying at least 10 hours every single week**—and not just the week prior to an exam or practical. This studying should also be spread out during each week, not simply occurring before Friday’s quiz or exam. 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.

Tutoring:

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

On-Line Quizzes:

Most Mondays and Wednesdays of this semester you will need to take a simple 5-point on-line quiz. This quiz is intended to help you keep up with all the material we are covering in class. Each quiz may cover material from the day’s lecture, previous material, and even some textbook material that will not be covered in class (but may be covered on quizzes and exams).

Each quiz will be available from noon of Monday or Wednesday to 7:59 a.m. the next morning. The correct answers will be posted at 8:00 a.m. of that next morning. **BECAUSE THESE QUIZZES ARE WORTH ONLY 5 POINTS AND THE ANSWERS ARE POSTED IMMEDIATELY AFTER THE DUE DATE, THESE QUIZZES CANNOT BE RESCHEDULED FOR ANY REASON.**

Although each quiz is open book, it is highly recommended that you read the chapter associated with the day’s lecture ahead of time. Indeed, you will be better able to learn the material if these quizzes you first study the material, then try to take the quiz without referring to your notes or textbook.

Feel free to take notes while you take these quizzes, but please **DO NOT** copy down questions and their answers, and **DO NOT** share answers with other members of the class. These quizzes are intended to help you and your classmates learn the material, so please do not undermine this goal by cheating.

In-Class Quizzes:

On the Fridays that do not have an exam, a **15-point quiz** will be administered at the start of class. These quizzes will consist of short answer and essay questions. The material to be covered by each quiz will be announced on the previous Wednesday. For each quiz, **10-12 points** will cover new material and **3-5 points** will cover previously studied material. These quizzes have a time limit, so if you are late for class, you will have less time. These quizzes are **not** intended to give you “easy points,” but are designed to help **focus your studying**. In general, these quizzes will be returned and discussed on the following Monday.

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.

- Lecture exams will cover the material given in class as indicated in the syllabus.
- Each exam will be composed of 40 multiple-choice questions (80 pts total) and 20 points of short answer/essay questions.

Exams will be administered on **Canvas**, using **Honorlock**. You will need to take your laptop to class for each exam. You should use **Google Chrome** browser to access Canvas and Honorlock during the exam. Unless given special permission (such as taking the exam through the EAC), you will not receive credit for an exam taken remotely.

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 [Class 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.

Laptop Policy:

On occasion, we will use laptop computers in the lab. In the classroom, however, laptops tend to interfere with your education and can serve as a distraction for your neighbors. Numerous studies (some highlighted here) have confirmed that classroom laptop use can be detrimental to learning. For this reason, I do not allow the use of laptops or other electronic devices in the classroom, with the exception of exams.

1. Laptops and other electronic devices enable more than just note-taking, introducing numerous distractions (web-surfing, homework for other classes, social media, etc.) for you and your neighbors. You may think that you can multitask, but studies show you can't.
http://www.slate.com/articles/health_and_science/science/2013/05/multitasking_while_studying_divided_attention_and_technological_gadgets.html
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.
<https://www.sciencedirect.com/science/article/pii/S0360131512002254>
3. Writing is a more effective way of learning material 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.
<https://www.npr.org/2016/04/17/474525392/attention-students-put-your-laptops-away>
4. Using electronic devices in class also impairs long-term retention, with one study suggesting that cellphone use in class can lower one's grade by half a letter grade.
<https://www.insidehighered.com/news/2018/07/27/class-cellphone-and-laptop-use-lowers-exam-scores-new-study-shows>

Laboratory Participation:

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 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 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. You must submit all your answers for laboratory exercises on a full-size printed handout, not on separate sheets.

Textbook and Lecture Notes:

The lab exercises and write-up often refer to material found in your textbook and in the lecture notes. Both sources, therefore, should be brought to lab each week.

Laboratory Quizzes:

As indicated on the lab schedule, quizzes will be administered at the start of most laboratory sections. The topic of the quiz is indicated in the schedule. If you are late for lab, you will not be given the opportunity to take any missed quiz.

Muscle Practical:

The muscle laboratory practical is scheduled for all laboratory sections (regardless of normally scheduled day and time) on **Tuesday, November 21**. 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 that 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 either on the lab bench (if there is room) or completely under the lab bench, such that no one could possibly trip over these items.

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.

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.

Other Academic Issues:

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 a cadaver in lab. 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 Human Anatomy and Physiology and I will support you throughout your learning in this course.

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.

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.

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, and dealt with as described above.

ARTIFICIAL INTELLIGENCE (AI) POLICY

Use of Artificial Intelligence (AI) tools (e.g, ChatGPT, iA Writer, Marmot, Botowski) is not permitted, and use of these tools will be treated as plagiarism.

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.

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 becomes an expression of faith. Being of Wesleyan heritage, we aspire to be a learning community where grace is foundational, truth is pursued, and holiness is a way of life.

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.

LANGUAGE AND BELONGING

Point Loma Nazarene University 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.

You may report an incident(s) using the [Bias Incident Reporting Form](#).

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.

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

Aug 28 (M)	Introduction to Anatomy and Physiology Elements and Atoms	chp. 1 pp. 7-31 chp. 2 pp. 39-46
On Your Own	Anatomical Terms	
Aug 30 (W)	Chemical Bonds and Reactions; pH	chp. 2 pp. 47-61
Sep 1 (F)	Solutions, Cytoplasm, Diffusion & Osmosis	chp. 2 pp. 55-56 chp. 3 pp. 85-88, 97-98

Sep 4 (M)	LABOR DAY	
Sep 6 (W)	Organic Chemistry; Membrane Proteins	chp. 2 pp. 61-74 chp. 3 pp. 83-85
Sep 8 (F)	Cell Membranes, Vesicles; Organelles	chp. 3 pp. 82-96 chp. 4 p. 131-133

Sep 11 (M)	Nucleus and DNA; Transcription and Translation	chp. 3 pp. 98-107
Sep 13 (W)	Genetic Inheritance	chp. 28 pp. 1256-1265
Sep 15 (F)	Exam 1 <i>Covers lecture & on your own material 8/28—9/11</i>	

Sep 18 (M)	Genetic Inheritance	chp. 28 pp. 1256-1265
Sep 20 (W)	Histology; Epithelial Tissue	chp. 4 pp. 126-140
Sep 22 (F)	Connective Tissue	chp. 4 pp. 140-147

Sep 25 (M)	Serous Membrane Integumentary System	chp. 1 pp. 26-28 chp. 5 pp. 163-170
Sep 27 (W)	Integumentary System	chp. 5 pp. 171-183
Sep 29 (F)	Bone Classifications & Histology	chp. 6 pp. 191-205

Oct 2 (M)	Bone Development and Homeostasis	chp. 6 pp. 206-220
Oct 4 (W)	Articulations	chp. 8 pp. 313-332
Oct 6 (F)	Exam 2 <i>Covers lecture & on your own material 9/13—10/2</i>	

Oct 9 (M)	Synovial Joints	chp. 9 pp. 320-325
Oct 11 (W)	Specific Synovial Joints; Joint Disorders	chp. 9 pp. 323-327, 332-344
Oct 13 (F)	Gross Muscle Anatomy	chp. 11 pp. 395-403
On Your Own	Gluteal and Posterior Hip Muscles	

Oct 16 (M)	Muscle Histology and Cytology	chp. 10 pp. 357-362, 381-386
On Your Own	Anterior Thigh Muscles; Posterior Thigh Muscles	
Oct 18 (W)	Excitation and Sliding Filament Mechanism	chp. 10 pp. 362-369
On Your Own	Medial Thigh Muscles	
Oct 20 (F)	HOLIDAY: FALL BREAK	

Oct 23 (M)	Motor Units and Force Generation	chp. 10 pp. 371-377
On Your Own	Posterior Leg Muscles Anterolateral Leg Muscles	
Oct 25 (W)	Walking	chp. 11 pp. 432-439
On Your Own	Posterior Shoulder Girdle Muscles Anterior Shoulder Girdle Muscles	
Oct 27 (F)	Exam 3 <i>Covers lecture & on your own material 10/4—10/23</i>	

Oct 30 (M)	Muscle Metabolism	chp. 10 pp. 369-371 chp. 24 pp. 1063-1086
On Your Own	Intrinsic Shoulder Muscles	
Nov 1 (W)	Skeletal Muscle Performance; Muscle Fiber Types	chp. 10 pp. 377-381
Nov 3 (F)	Muscle Pathologies	
On Your Own	Anterior Forearm Muscles; Posterior Forearm Muscles	
On Your Own	Anterior Arm Muscles; Posterior Arm Muscles	

Nov 6 (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 8 (W)	Spinal Nerves	chp. 13 pp. 518-526
Nov 10 (F)	Exam 4 <i>Covers lecture & on your own material 10/25—11/6</i>	

Nov 13 (M)	Neurohistology and Neurophysiology	chp. 12 pp. 452-471
Nov 15 (W)	Action Potentials	chp. 12 pp. 468-477
Nov 17 (F)	Synapses and Neurotransmitters	chp. 12 pp. 478-482

Nov 20 (M)	FREE DAY	
Nov 21 (Tu)	Laboratory Exam 2: Muscle Practical—all sections	
Nov 22-24	HOLIDAY: THANKSGIVING BREAK	

Nov 27 (M)	Central Nervous System: Brain	chp. 13 pp. 493-508
Nov 29 (W)	Cranial Nerves	chp. 13 pp. 522-525
Dec 1 (F)	Exam 5 <i>Covers lecture & on your own material 11/8—11/27</i>	

Dec 4 (M)	CNS: Spinal Cord and Protection of the CNS	chp. 13 pp. 509-510, 513-517
Dec 6 (W)	Central Nervous System Disorders	chp. 12 pp. 464-465, 482 chp. 13 pp. 510-511, 515, 517-518
Dec 8 (F)	quiz only	

Dec 15 (F)	FINAL EXAM, 10:30a.m.—1:00p.m.	
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Laboratory Schedule for Bio 1030, Fall 2023

Week of:	Lab Exercise	Quiz
Aug. 28	Skeletal System: Appendicular Skeleton	<i>bone terminology</i>
Sep. 4	Basic Chemical Principles	<i>appendicular skeleton</i>
Sep. 11	Skeletal System: Axial Skeleton	<i>basic chemical principles</i>
Sep. 18	Skeleton—Review	<i>axial skeleton</i>
Sep. 25	<u>Laboratory Exam 1: Skeleton Practical</u> Cat Dissection: Muscles: Lower Extremity	
Oct. 2	Cat Dissection: Muscles: Lower Extremity 2	<i>no quiz</i>
Oct. 9	Cat Dissection: Muscles: Upper Extremity 1 Cadaver Examination: Muscles: Lower Extremity	<i>muscles of cat lower extremity</i>
Oct. 16	NO LAB—FALL BREAK	
Oct. 23	Muscle Physiology	14 pt quiz: · <i>cat muscles—upper body</i> · <i>human muscles—lower body</i> · <i>review</i>
Oct. 30	Cat Dissection: Muscles: Upper Extremity 2 Cadaver Examination: Muscles: Upper Extremity	<i>muscle physiology</i>
Nov. 6	Muscle Function	16 pt quiz: · <i>cat muscles—upper body</i> · <i>human muscles—upper body</i> · <i>review</i>
Nov. 13	Cat Dissection: Muscles—Review Cadaver Examination: Muscles—Review	<i>muscle function</i>
Nov. 20	<u>Laboratory Exam 2: Muscle Practical</u> <u>Tuesday, November 21 for all sections</u> No Regularly Scheduled Laboratory Sections	
Nov. 27	Brain and Neurological Exams	<i>brain anatomy</i>
Dec. 4	NO LAB	