

STRATEGIES FOR SUCCESS IN THE BIOLOGY 203 LABORATORY

Introduction

Anatomy is a precise descriptive science based on observation. Unlike the common misconception, it is not a subject based on rote memory! Remembering this as you work—that anatomy is *precise*, that anatomy is *descriptive*, and that anatomy is based on *observation*—is a great help toward developing your skill as an anatomist. It will enable you to learn much more easily, and in a way that will result in understanding of principles that will stay with you long after you leave the anatomy lab and enter the clinical world.

Below are some tips to enable you to succeed in your study of human anatomy.

- A. **Bring your textbook, this *Laboratory Guide*, and the Atlas to lab every week.**
1. *Seeley's Essentials of Anatomy and Physiology*, 9th ed. (2016) provides illustrations which serve as the “keys” to the models. (The 8th edition of the text is also usable; illustration numbers are identical, but page numbers may differ.)
 2. This *Lab Guide* serves as a link between text and lab materials.
 - a. It gives illustration numbers and page references.
 - b. It shows required vocabulary in **boldface**.
 - c. It shows which models to use when studying the required vocabulary by underlining, as in “upper limb models.”
 - d. It aids in pronunciation by underlining the vowel of accented syllables in confusing words, or by providing complete pronunciation when necessary; i.e., “carotid” for “carotid,” and “lare-inks” for “larynx.”
 - e. It contains an atlas of photographs of many lab models.
- B. **Prepare *before* each lab class to get the most benefit from your lab time.**
1. Before coming to lab, use this *Laboratory Guide* to highlight this week’s assigned vocabulary (in **boldface**) in the text illustrations using a “lab only” highlighter.

2. Place bookmarks or colored tabs in the assigned illustrations in the text so that you can find them easily in lab.
3. Read through all assigned material in this *Laboratory Guide* or in the text.
4. View any assigned animations before coming to lab.

C. This is a “hands-on” lab—spend your lab time handling models and bones.

1. Use your text mostly outside of your lab time.
2. In lab, use your text mainly as a key to the models.
3. Use your lab time well—it is limited.
 - a. Try to stay focused on the work in lab.
 - b. Work cooperatively. Do not distract others with chit-chat, and do not allow others to waste your time in this way. Finding a lab partner to study with is an excellent way to share study hints, review, and motivate each other.
 - c. **Leaving early is hazardous to your grade.**

D. Recognize that anatomy is precise detail work.

1. Observe structures carefully, particularly noting *where* they are in relationship to other structures.
2. Use the entire name as you work and study. Repeat it aloud. Every anatomical name is designed to have some element of description. What does the name mean?
3. When it comes to origins, insertions, and actions of muscles, have each muscle “show” you all three, based on its location. You will always be looking at the muscle when asked about it.
4. Your success in this lab class depends on your ability to *recognize* a structure on a model or bone and to be able to *recall* and write its name.

E. Review is the key to all learning.

1. **Review** newest material first and most.
2. **Review** older material regularly out of lab.
3. **Review** previously used models in every lab every week.
4. **Review** assigned animations outside lab.

F. Plan to use the extra “open lab” times provided. By permission of the instructor, you may also be able to spend extra time in other labs.

G. Your lab instructor is a major resource.

1. He or she will provide an introduction to each lab, and a final review.
2. Your instructor will assist you with pronunciation of terms, memory jogs, and an appreciation of the relevance of the lab material.
3. Your instructor will help you choose the best models for studying the appropriate anatomy.
4. Please ask for the assistance you need in lab.
5. Do not compromise your instructor’s effectiveness by engaging him or her in chit-chat.
6. Your instructor’s office hours are for your benefit. Use them as necessary.

H. Quizzes are intended to motivate you to keep up with each week’s work.

1. Your instructor will describe the quizzes.
2. No quiz may be made up if missed; however, your lowest quiz score from each half of the course will be dropped.

I. **All lab practicals and quizzes are write-in tests. Most questions will ask you to identify structures directly on the lab models and bones.**

1. Your instructor will describe these types of tests.
2. Study which includes writing the names of the structures is excellent preparation for the practicals.
3. A practice practical will be set up before the actual lab practical.
4. Your lab practical test sheet will be returned to you during the lab following the test. Always check it with the key posted in the lab. If there are errors, return the test to your instructor immediately for regrading. If you have not requested regrading by your instructor by the second lab after Lab Practical I, or at the final lecture test for Lab Practical II, your test will be considered correctly graded and no further regrading will be considered.

J. **Biology 203 Quiz and Lab Practical Grading Standards**

1. Spelling is important and will be graded. However, insignificant errors can be overlooked. Errors which cause mispronunciation are significant and will receive half credit. Truly bizarre spellings, no credit. Pronouncing the student's rendition of the word phonetically is an easy way to decide. Examples:

Latissimus dorsi: Lattissimuss dorsi (full credit). Latassimus dorsi (half credit).

Acetabulum: Asetabulum (full credit). Acetapulum (half credit). Aceptabiliu (no credit).

2. No credit if a specific part is asked for and the entire part is given. Examples:

Capitulum: Humerus (no credit).

Infrapinous process: Scapula (no credit)

Tibial tuberosity: Tibia (no credit).

3. Half credit can be given if one word of a two-word answer is correct, as long as the single word is significant. Commonly recurring words such as body, cavity, spine, process, sinus, major, lobe, etc., are not worth any credit by themselves. Examples:

Pectoralis major: Pectoralis minor (half credit).

Zygomatic arch: Zygomatic process (half credit). Vertebral arch (no credit).

Lateral malleolus: Medial malleolus (half credit). Lateral epicondyle (no credit).

4. Half credit can be given if two words of a three-word answer is correct, as long as the two are significant. Examples:

Flexor digitorum profundus: Flexor digitorum superficialis (half credit).
Flexor pollicis longus (no credit).

Extensor carpi ulnaris: Flexor carpi ulnaris (half credit). Flexor carpi radialis (no credit).

5. Incorrect forms of words will be given half credit. Examples:

Trochlear notch: Trochlea notch (half credit).

Jugular foramen: Jugular foramina (half credit).

Distal phalanx: Distal phalange (half credit).

6. If both a correct and an incorrect answer are given, no credit. Student should write only the correct answer. Example:

Coracoid process: Coracoid/acromion process (no credit).

7. Actions of muscles must be complete and *name the part acted on*. Incomplete answers will receive half or no credit. One of three action, no credit. Examples:

Flexes thigh and extends leg: Flexes thigh and leg (half credit)

Extends and abducts thigh: extends and abducts (no credit)

8. Instructors' policy if not sure about half or full credit: Circle it; give full credit; take of half credit for the next similar error.

K. Please cooperate with the following laboratory policies.

1. **Lab personal protection dress policy:** University "personal protection" regulations require that students in all teaching labs wear closed-toed shoes, and long pants or floor length skirt. Short-sleeve shirts are allowable, but not sleeveless shirts, tank tops, or midriff-exposing tops.
2. **Do not eat or drink in the lab.** This is a posted health regulation. It also protects models, books and keys from spills.
3. **Do not point with pencils or pens on models**—use wooden sticks so we do not mark up the models.
4. **Limit photography to the last 10 minutes of class.** Photographs are

available as part of your course materials, but there is no substitute for the hands-on learning that the lab experience offers.

5. **Clean-up** is essential before you leave lab.
 - a. Follow instructor's directions as to where to put models, keys, and dissection materials.
 - b. Push stools under the table as you leave.

6. **You may not attend a lab for which you are not registered unless you have the express permission of the instructor.** (This is a policy throughout the university.) However, "open lab" times will be announced before each practical to allow all students extra lab time.

L. **Lab instructor's name:** _____,
e-mail: _____, and office: _____

M. **3-Digit I.D. Number:**
Each student will be assigned a 3-digit number to use on all exams and quizzes. All grades will be recorded and posted using this number. It is important to remember your 3-digit number and darken it in on every test answer sheet.

You may record your 3 digit I.D. number here: ___ ___ ___
Always check the grades posted on Blackboard to make sure your score is posted. You will need to inform me if your grade is not posted.

Assigned Seat Number for Exams:
All students will be given an assigned seat for taking exams. Your seat number will consist of a letter and a number.
You may record your seat number here: _____