Welcome!

Lab is where you will really learn anatomy. You get to see, hold, and examine the real thing, the human body! You cannot get these things listening to a lecture or reading a book. For many of you lab will be the most exciting aspect of the class.

Please be respectful at all times. This doesn't mean that you can't have fun. Just remember that we have this amazing opportunity because someone donated their body for medical education and research.
Lab Introduction

Be on time to lab each week!

- The quiz starts at the beginning of lab.
- You need a note from Shawn to attend a different lab!
- We use the lab clock to determine lab start time.
- Lab start times are 10:00, 12:30, 3:00, and 5:30.
Lab Introduction

Bags and jackets must be put away!

- Hang jackets on the hooks.
- Store backpacks under your desk.
- Keep the floor clear, you will be moving around!

Find a seat!

- This will be your assigned seat for the summer.
- There will be a piece of quiz paper on the desk.
- Write your name on the quiz paper.
- Wait quietly for the quiz to begin.
Restrictions

**NO CAMERAS – NO PHOTOS!**

- Photographs may NEVER BE TAKEN during lab!

- Doing so will jeopardize our agreement with the Body Donor Program and we will never be able to use cadavers again!
Restrictions

CELL PHONES MUST BE TURNED OFF DURING LAB!

• There is no reason to have your phone out while a lab is in session.

• We will ask you to leave if you are using your phone during lab!
Restrictions

As you can see, most things are prohibited in lab!

**BUT...**

Water is probably okay!
If You Feel Faint...

PLEASE SIT DOWN! DO NOT TRY TO LEAVE THE LAB!

• You will be lucky to take one or two steps, then you will fall!

• Falling in the lab is last thing you want to do because...
  - you will fall head-first.
  - the tables are hard and do not move
  - there is concrete under the flooring

• The lab leaders know what to do in the event someone falls.
Cadaver Care

Very few undergraduate anatomy classes have a cadaver lab and none are as good as ours! So, appreciate our lab and take advantage of this amazing learning opportunity.

The prosections we have represent THOUSANDS OF HOURS OF DISSECTION!

• Not only do they represent countless hours of work they also represent someone who donated their body so you can learn.

NEVER POINT TO STRUCTURES WITH ANY KIND OF WRITING INSTRUMENT!

• Doing so will damage our teaching materials!
We encourage you to handle the prosections during lab.

• You do not need to wear gloves to do so.

• So, if you feel you need gloves please bring your own.

• The chemical we use as a wetting agent is an extremely dilute solution of 2-phenoxyethanol and water (300 parts water to 8 parts 2-phenoxyethanol).

• It is hydrophilic, antimicrobial, and hypoallergenic, and is a common chemical in cosmetics, lotions, and creams.

We have MSDS sheets for all chemicals that you might encounter during lab.
The Lab Manual is designed to be used with Human Anatomy Interactive Atlas to help you prepare for the lab quizzes and practical exams. How you print it is up to you. It is available as a free download on the course website.

courses.biology.utah.edu/smiller/2325/labManual.pdf
Lab Manual

Orientation

This 2-page section provides you with a quick orientation to the lab. It includes a brief explanation of the purpose of the lab in the study of anatomy and some general lab information.
This 2-page section provides you with a number of tips and learning strategies that will help you get the most out of your lab experience. It also provides some information regarding other resources that might be helpful to you both before and after you have attended your lab session for the week.

Tips

The following techniques will be useful in learning anatomical concepts throughout this course. Before each lab, review this list and apply the appropriate concepts to the lecture material.

1. **Hands on!** Exploration and touching of cadaver parts is essential. The more you handle and examine cadaver parts the more familiar you will become with orienting, recognizing, and discovering specific anatomical structures.

2. **Palpation:** This is the process of exploring structures with your hands on your own or someone else’s body. Realize that your own body is a human anatomy review sheet (anatomy can be fun with a partner too). Palpation can be used to study bony landmarks, muscles, tendons, ligaments, vessels, and nervous structures. Whenever you are learning a new anatomical structure, try and palpate it on your own body.

3. **Etymology:** Many anatomical terms are derived from Latin and Greek roots. Often terms that look foreign to you are actually very descriptive. The term might describe the size, shape, action, or location of the anatomical structure being named. By dissecting a term’s Latin or Greek origin you can make memory associations that will help with learning the anatomical structures. For examples of this approach, look at the chapters Anatomical Nomenclature and Anatomical Etymology in the Human Anatomy Lab Manual.

4. **Traces:** A trace is a sequential path of chambers, vessels, tubular structures, valves, or nervous structures through which a substance or impulse passes as it travels from one region of the body to another. When learning systems, such as the cardiovascular, respiratory, digestive, urinary, or nervous systems, traces provide an excellent technique for identifying the structures in an organized fashion. This is an excellent way to see if you understand the big picture. Learning a trace through a system will help you reinforce the sequential relationship between the structures of that system. Remember, you can trace molecules from one system to another across diffusion or transport barriers, such as an oxygen molecule from the alveolar air spaces in the lungs to the pulmonary capillaries that surround those air spaces!
This 3-page section provides you with the general format the lab manual follows for each of the lab sessions. It includes a thorough explanation of each subsection of the lab.
Laboratory One begins on page 9 of the Lab Manual. The five Collaborative Learning Stations associated with the lab are listed on the title page for each lab session. Look these over to get an overview of what you will be doing in the lab.
To learn how to prepare for the weekly quiz find the section called Structures to Identify for the Quiz, for lab one turn to page 11. This section clearly states what you will need to do to prepare for the quiz at the beginning of the lab. Everything you need to study to do well in the lab will be outlined in this section.
Follow each outlined point. You will always be directed to specific photos on the Human Anatomy Interactive Atlas CD.

In this case, the first point instructs you to be able to identify all the named bones of the appendicular skeleton on the Appendicular Skeleton Module of the Human Anatomy Interactive Atlas CD.
Second, it tells you that you should be able to tell if you are looking at the anterior or posterior aspect of each bone,

When you initially select a bone on the Human Anatomy Interactive Atlas CD, it will tell you what view you are looking at.
Third, it tells you that you should be able to identify the landmarks that are marked with an asterisk on the bone illustrations in the Human Anatomy Study Guide and Workbook. It then lists all the landmarks with an asterisk. You should be able to identify all of the landmarks in the list below the paragraph (the list is partially obscured by the call out).
Finally, it says you should be able to use the terminology covered in the Anatomical Nomenclature chapter of the lecture manual (pages 1-13). These are the pages I told you to read last week.

What you need to do is to be able to use them with the photos of the bones in the Human Anatomy Interactive Atlas CD.
Under the heading Structures to Identify in the Lab you see the lists the structures that you will see as you as you move from one station to the next during lab. These are the bony landmarks you will be held accountable for after you have been through the first lab. The TAs will try to get through them all. If they can't they will help you learn how to learn them on your own.
On the last page of each lab you will see a section called After the Lab is Over. What follows are tips for reviewing the material as you study using your lab manual and the Human Anatomy Interactive Atlas CD.
Future Quizzes

Review Questions

On the second quiz, there will be seven structures to identify from the photos indicated under Structures to Identify for the Quiz section of lab two and three review structures to identify from the Structures to Identify in the Lab section of lab one. In all subsequent labs there will be five structures from the current lab and five structures that will come from prior labs.
The Human Anatomy Study Guide and Workbook is a valuable resource. After you have gone though your notes for each lecture you should try to answer the questions in the Workbook.

- There are exercises for each lecture topic.
- The exercises are similar to exam questions.
- Do the exercises after every lecture!
- Do not get behind!
The pelvis is a region that requires a little extra work. A former TA made a model that has been extremely helpful when learning this region.

- The pelvis model is in the back of the workbook.
- It is accompanied by a set of instructions.
- You will have to build it prior to lab 6.
- The pelvis model is due at the beginning of lab 6.
Office Hours

It is up to you to come in and get help. Office hours are listed on the course website. If you cannot make it to Shawn’s office hour you can make an appointment.

- Shawn’s office hour is the hour after lecture.
- Office hours are held in the anatomy lab.
- Bones can be studied during office hour.
- Soft-tissue materials are reserved for lab only.
Supplemental Instruction (SI)

During the summer there is one SI session per week. This is another opportunity you have to get some help if you find that you need a little extra help.

- SI is on Tuesdays from 9:00-11:00 AM in the lab.
- Bring your lecture manual to SI with you.
- SI can help you get clarification on lecture notes.
- Please take advantage of this great resource!