LAB OVERVIEW & LEARNING OUTCOMES:
Anatomy is the ABC’s of biology. It is fundamental and absolutely essential in understanding biology and an integral part of many other disciplines (physiology, medicine, kinesiology, psychology, allied health sciences, nursing, et cetera). Laboratory exercises provide the real learning experience in any anatomy course and serve to illustrate, validate, and reinforce what you learn in lecture. **As a successful student in anatomy lab you should be able to locate, identify, and functionally describe the structures of the human body and the physical relationships among them at all levels of organization using various investigative and collaborative techniques.** You will achieve these learning outcomes, through dissections, examinations of models & slides, lab activities, and examining the three-dimensional relationships among various structures of the body. Lab practicals and quizzes will assess your knowledge and comprehension of these outcomes. This semester you will dissect a mink, sheep heart, sheep eye, and a sheep brain that are all remarkably similar to their human counterparts. In addition, you will also examine histological preparations of many organs and tissues, as well as models, and charts. You will be notified in advance when you will need to bring your dissecting kit and gloves and wear old clothing.

Since Anatomy is a taught in an academic setting, it requires a great deal of conceptual understanding and rote memorization...**And although most of anatomy is conceptually straightforward, the amount of material & unfamiliar terms make it a seemingly difficult subject. Do not think cramming will work. You must prepare for class & study nearly every day to earn the grade you want. This requires you to PDA... practice perfectly, maintain discipline to study, and possess a positive attitude about the course.** Any deficiency in these learning characteristics may affect your grade. Therefore, to achieve the course goals and help maximize your learning, it is **vital** that you attend lab, come prepared, focus your efforts, make use of the full period, and study the material outside of lab everyday. Finally, we’re here to help you learn, so be sure to ask for help.

COURSE CONTENT: College-level human anatomy courses may include controversial, sensitive, and/or graphic adult material related to the study of the human body and in examples of clinically relevant scenarios. Students are expected to exhibit maturity, respect, sensitivity, and tolerance towards all members of the class and the instructor. Students are also expected to demonstrate college level readiness and preparedness for the rigor of the course content.

REQUIRED COURSE MATERIALS:
- Required access to Blackboard.angelo.edu. Many course materials and assignments for lecture and lab will be distributed this way.
- Completion of the Biosafety Course on Bb. You cannot attend lab unless you take and pass the required safety training with at least a 90%. It must be completed by the 2nd lab meeting.
- Basic, college level anatomy text. You can choose any one you like, but you must always bring it to lab. I recommend **OpenStax Human Anatomy and Physiology**. You can download a free PDF of the entire book or purchase a hard copy here. [https://openstax.org/details/books/anatomy-and-](https://openstax.org/details/books/anatomy-and-).
Top Hat Response System – Mobile/Electronic device driven platform that we will use in lecture for attendance, in lecture quizzes, and limited out of lecture homework activities. More information to follow via email and in class. http://tophat.com/. This is NOT included in the package/bundle. It is a separate purchase. Also, if you plan on taking BIO 2424 next semester, purchase Top Hat for a year. There is an app for both android and apple based smart phones

Non-sterile surgical dissection gloves (you will need these on the first day of lab)

Standard Human Anatomy Dissection Kit (optional...instructors will provide most dissection tools)

Since lab material will be routinely distributed via the web, you are required to have internet and Blackboard access, and an official ASU email account. All communication will be through these media. ASU provides these services free at any of the computer labs on campus. Call the ASU Technology Service Center at 325-942-2911 for technical assistance.

LAB ASSESSMENTS & GRADING POLICY:

You will have the opportunity to earn 510 points in the lab portion of this course. Your grade will be determined by the total number of points you accumulate on 5 practical exams administered at the beginning of the lab period (see schedule) and on in-lab activities that are participatory in nature.

Practical Exams are designed to assess your knowledge and comprehension of the course content, motivate you to keep up with your studies, and reward you for doing so. Practical Exams are tests where you identify labeled structures, locations, functions, etc. from models, dissections specimens, charts, and microscope slides at various stations distributed around the lab (no word lists). The information you are responsible for learning for all lab practical exams is listed in the summary word-lists in your lab manual. Please speak with your lab instructor if you are unfamiliar with this type of assessment format. You are required to arrive on time and follow the guidelines posted in the ‘general lab rules’ below. If you arrive late for a practical exam you will not receive any additional time to complete it.

Depending on your instructor grades may or may not be posted on Blackboard, so it is your responsibility to keep up with them. Practical exams will be graded by your lab instructor or an assistant and returned the next lab period. There will always be a laboratory exercise that follows the pre-lab assignment, quiz, or practical. [A special note, students in split labs will always take the practical exam in the first lab meeting of the week. Any assignments will also be due at the beginning of the first lab meeting of the week. Lab will always follow the quiz or resume during the second meeting of the week after practical exams].

Due to space constraints, practical exams may be administered on a time-delayed basis. You will be responsible for attending the practical at your assigned time. Your instructor will provide you with more information about these procedures during lab.

You are required to arrive on time and follow the guidelines posted in the ‘general lab rules’ below. If you arrive late for a practical exam you will not receive any additional time to complete it.

Depending on your instructor, grades may or may not be posted on Blackboard, so it is your responsibility to keep up with them. Practical exams will be graded by your lab instructor or an assistant and returned the next lab period.

There will always be a laboratory exercise that follows the practical exam.
GRADE DETERMINATION:
Your lab grade is based on points, not percentages. Your lab grade is combined with your lecture grade to determine your overall grade in the course. At the end of the semester all points (lecture and lab) are added together. The following assessments are how you earn points in lab.

<table>
<thead>
<tr>
<th>LAB Assessments</th>
<th>Maximum Points Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lab Practical Exams</td>
<td>500 points</td>
</tr>
<tr>
<td>5 practicals @ 100 pts each – fill in the blank questions</td>
<td></td>
</tr>
<tr>
<td>Microscope Activity</td>
<td>5 points</td>
</tr>
<tr>
<td>Forensic Lab Activity</td>
<td>5 points</td>
</tr>
<tr>
<td>TOTAL LAB POINTS</td>
<td>510 points</td>
</tr>
</tbody>
</table>

ATTENDANCE POLICY:
Attendance is mandatory. Attendance will affect your grade in the course. You are required to come prepared, attend lab for the full time each day, and spend time in the open lab periods. The volume of material makes it critical that you make every second in lab quality study time. Students who goof off, whine, or consistently leave early usually do not perform well simply because their efforts are not focused on studying. Roll will be taken at the beginning and/or end of the lab period. To receive credit for your attendance, you must stay for the entire lab. (Sign out sheets will be deployed at the end of lab). Signatures are required for attendance credit. Excessive absences will be reported to the Registrar’s Office and Financial Aid. You must also attend the lab for which you are registered. Labs cannot be made up except under extraordinary circumstances. Only excuses acknowledged by the university catalog will be considered for make-up and will always be subject to written verification, If you know now that you will have work or other conflict with your scheduled lab time, you should do one of the following immediately: (1) Go to the registrar’s office and drop this lab section and then add a lab section with no work/lab conflicts. (2) Change your schedule. (3). Drop this course.

In order to make-up a lab: you must first contact your instructor in person within 24 hours of your absence (no exceptions) and provide them with a written, valid, university recognized excuse that is verifiable. (Your instructor may or may not give you permission to make-up the lab based on the validity and verifiability of your excuse). All practical exams must be make-up the same week they were originally scheduled, no exceptions. (This is because the lab changes weekly). Format of any make-up practical exams will be left to the discretion of your lab instructor, but are usually extremely truncated versions. In the event that your instructor decides your absence is excused, you will determine together which lab you will attend to make-up the lab you missed. Permission must then be obtained from the instructor of the make-up lab before you can attend. You may not be accepted to your choice pending space availability. Failure to follow these procedures will result in a 0 for the practical or assignment in question. Again all practical exams must be made up the same week they are missed no exceptions. Excessive absences will be reported to the Registrar’s office and other required agencies.

SPELLING COUNTS.
You will be expected to spell all terms correctly on all practicals. One-quarter to full credit will be taken off for spelling mistakes. For example if it changes the meaning of the word, full credit will be taken off (e.g. humerus vs. humorous). Any partial credit for almost correct answers will be awarded at the discretion of your instructor. Besides the basic reason of education, why does spelling count? Confusion may arise from
imprecision. Many anatomical/medical terms are similar—they may even have the same Latin & Greek roots. Would you like your pharmacist to misread your prescription? A misspelled word on a patient's chart can lead to a disaster: legal as well as health-wise. Besides your own health or a patient’s, there’s another very practical reason: it may hit your pocketbook—in all jobs, written communication is important in making a good first impression. Would you hire someone whose application is full of spelling and/or grammatical errors? Here’s an example for nurses enunciated by a colleague: “I tell them they could be the world's best nurse, but if they have misspellings on their charts, those reading the charts (including the doctors) may mistrust their abilities and intelligence. Because physicians often first 'meet' the new nurse on the floor through written reports, the opinion may be made before they actually meet. Once this opinion exists, it is very difficult to overcome. You only get to make a "first impression" once! This could even lead to poor efficiency reports and to being passed over for promotions.”

**REGRADING PROCEDURES:**

Every effort is enlisted to ensure accuracy and consistency in grading; however sometimes mistakes do occur. An answer key of each quiz and practical exam will be made available and your paper will be returned to you. You are encouraged to carefully review the key. To report grading errors regarding your practical exam, or grade, you are required to follow the Procedures for Regrading shown below.

**Procedures for Regrading:**

Read and follow the instructions below.

1. If the error is strictly a mathematical error: staple a note to your quiz/exam which reads “math only” & turn it in to your instructor for a grade recalculation.

2. If you believe you have found a grading error:
   a. study the key before you request that any question(s) be regarded. Remember a 1 pt error is at best only .002 pts out of 580.
   b. remember that the practicals are photocopied immediately after you turn them in (e.g. We will know if you have changed an answer). It is an expense we wish we did not feel compelled to bear.
   c. you must clearly state your reason(s) for thinking the question has been graded incorrectly in a neatly written, attached note. “Question X is graded wrong or I deserve more points on question Y” are not reasons. This means we expect a clearly delineated/thoughtful reason based on verifiable factual information that your answer is correct (i.e. from a reputable source like your text or lab manual). We expect a short paragraph for each error along with specific page references.
   d. staple your justification to your quiz or practical and turn it in to your instructor. Your instructor will be very fair and accurate, but the entire quiz/practical will be regraded AND if the resulting grade is lower than the previous, the second grade will replace the first. Regraded quizzes/practicals will be returned the following week.

3. The deadline for requesting any recalculating or regrading is the same day following the return of the quiz/practical. No Exceptions.
GENERAL LAB RULES & INFORMATION:
All students are required to read and follow the lab rules:

1. Student behavior in the lab is to be maintained in a manner conducive to learning and study. No horseplay, rough housing, or any type of disruptive behavior is allowed in the lab at any time. Likewise no degrading or offensive language will be tolerated. You will be asked to leave and subject to further disciplinary action if you are disruptive in any way.

2. You must attend the lab for which you are officially registered. No switching is allowed no matter what the reason.

3. No children are allowed in the lab at any time. This means during regular lab times and open review sessions.

4. You are not allowed to remove any materials from the laboratory. You must always return materials to their proper place.

5. Food, drinks, and all tobacco products are not allowed in the laboratory. You may take breaks at your discretion outside the lab.

6. You are expected to treat the human bones, models, slides, and materials with the utmost respect. Any person caught defacing, throwing, carelessly handling, etc., these materials will be asked to leave the lab immediately and subject to further disciplinary action from the university.

7. Dissection wastes and other “scraps” should be discarded in the designated containers only. Do not put them in the sinks.

8. At the end of each lab session, each lab group is responsible for cleaning their work area. You must clean the table with soap or other materials provided and water. You must also clean your dissection tools and tray anytime they are used and return materials to where you found them. You will not be allowed to leave lab unless your table is cleaned and your stools are pushed under the table. Up to 5 points may be deducted from every member of your lab group each time your area or the lab is not cleaned properly.

9. Electronic devices such as cell phones, pagers, smart watches, headphones, google glasses etc. are generally not allowed in lab because they create distractions. You will not be allowed to carry them during practical exams. No exceptions. If they go off during lab, 5 points will automatically be deducted from your point total for each incidence after an initial warning. Electronic devices are not allowed during practical exams and carry a steeper penalty (see #11 below). You may use your phone, digital cameras or other recording devices if you wish during open lab only.

10. No form of academic dishonesty will be tolerated. Angelo State University expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the Academic Honor Code, which is contained in both print and web versions of the Student Handbook.

11. Practical Exam Days On practical exam days, you are expected to adhere to the following guidelines: Place all your books, backpacks, purses, caps, etc. at the front of the room. If you have something of value that you’re concerned about, do not bring it on test day. Wear no hats or sunglasses. Electronic devices such as cell phones, pagers, personal stereos, graphing calculators, palm pilots, laptops, recording devices, etc. are not allowed. You must keep those devices with your belongings at the front of the room (i.e. you will not be allowed to carry your cell phone or pager, etc. during the practical). You will receive an automatic 0 if you carry your phone/smart-watch/etc or they go off during a practical exam or lab quiz. You must also adhere to the explicit examination instructions given by your instructor (subject to point deduction penalty). You will also not be allowed to leave during the exam. If you leave, you will have to turn in your exam and will not be able to resume it. Please see
your instructor before the first practical, if you anticipate any problems with the procedures outlined above.

12. OPEN LAB RULES: CAV 131 will open for unsupervised study Mon-Fri 8:30am-5pm unless otherwise noted and except when needed to prepare for lab practicals and lab setup. 125 will be open on a much more limited basis TBA. During open lab you may come and go as you please. However, you must always follow the lab rules posted above and below. If these procedures are not followed or the privileges are abused in any way, the unsupervised study will be discontinued permanently. If you are unable to attend open labs, please be aware there are digital images available (of most items) on your lecture instructor’s Blackboard site. During some lab hours (TBA) a free tutor or SI instructor may be available for help and assistance.

OPEN LAB RULES YOU MUST OBEY

- The lab rules printed above must be followed.
- The lab is for study only! (no socializing, etc.).
- Nothing should be removed from the lab...ever!!!
- Lab materials must be returned to where they were found.
- All trash must be thrown away.
- The lab must be kept neat and clean.
- All materials must be handled carefully and with respect.
- All students must help us police the lab.

Let us know immediately if there are problems before we have to take immediate and permanent action. We heavily stress the tenuous nature of the agreement with each of you. We expect every student to behave like an adult and follow the rules. All instructors will be keeping an extremely close eye on things and taking inventory nightly. Because of problems encountered last year, this is the best that we can do under the circumstances.

WHAT WILL ANATOMY LAB BE LIKE?
Anatomy lab is a combination of independent study and group work. Your instructor will provide some short introductory comments about tasks, assignments, and materials distributed around the lab. You will then be encouraged to work through your lab activities to identify and locate key structures on models, slides, and dissection specimens on your own or as a lab group. The instructor will walk around the lab to each table to help you with the material. Your instructor is willing to work with you as needed, but it is your responsibility to focus on the tasks, activities, and materials so that her/his attention may be focused on your particular task at the time. You are therefore encouraged to generate a list of questions for the instructor, so she/he may help you when she/he stops by your table. This requires self-motivation and the proper attitude toward learning. We are here to help you learn, but you must do your part too. (We can’t learn it for you, nor can we take your exams).

To help you achieve your learning goals, we require that you fill out the exercises in your lab manual before you attend lab. Most (if not all) of the answers to the activities, figures and review sections in your lab manual can be found within the manual itself as well as your textbook (many of the figures are the same), and your coloring book. (Answer keys will not be provided since all the answers are in these places and helps you to learn the material). As a supplement, many students find it helpful to download the pictures of the required models/slides on-line and bring them to lab to label. These are important study strategies because it frees up your lab time so you can review models, slides, and specimens. Some students prefer to work alone, but many
successful students find that working with 1 or 2 other committed/motivated people helps them to learn the material faster and better. We agree.

Sometimes, you will be working in groups of 3-5 people during dissections. You do not have to touch or handle specimens, but you are still responsible for the dissection material. Further...someone at your lab group must be willing to conduct the dissection. Those who do not participate directly in the dissection will be assigned other lab duties like cleaning up, reading instructions, preparing dissection tools etc. Therefore it is advised that students organize their groups in such a way that there are an adequate number of students willing to participate in all required activities.

**WHAT DO I NEED TO STUDY?**

In lab you are required to always come prepared by filling out the lab manual in advance. You are required to study the lab manual activities/exercises, coloring book plates (when applicable), and summary word lists. These will serve as the basis for all your quizzes and lab practical exams.

**WHAT DO I NEED TO DO TO EARN AN A?**

The fact that you’re reading this shows that you have the potential to be an “A” student. In fact, we would like for every student in this class to earn an A. Read that again....Shocking isn’t it? Yes, believe it or not we want you to do well and if you’re reading this, we sincerely believe you have the potential to do so in this lab. We will do everything in our power to help you earn the grade you want, but you’ll have to do your part too which means **studying** for complete understanding and **learning** beyond just memorizing the facts.

Anatomy is conceptually easy to understand, but learning it requires much effort on your part. Many students after an exam say, “but I knew the material,” or “I even studied for 8 hours,” and are truly bewildered by a grade lower than they anticipated. The problem is that there’s a big difference between understanding something you hear and/or read and knowing it. Understanding is what has to come first, but knowing is beyond even that. Knowing requires being able, without reference, to (1) repeat what you hear/read, accurately and completely, AND (2) use what you’ve heard/read to figure out things you’ve never seen before at all! In other words using what you know. Don’t let time dictate your studying; let learning. Study until you “learn” the material, no matter how much time it takes. Also consider that knowing requires a degree of familiarity and usefulness of the material that cannot occur overnight. Cramming just doesn’t work. Also don’t be deceived by the large amounts of free time in your schedule. They simply do not exist. The general rule of 3 hrs of outside study a week for each hour of course credit is no joke. Such experiences have led to the classification of a person carrying 12 semester hours as a full-time student. Here are some examples:

- 3 hours of outside study/hr of class x (12 class hours) = a 36 hour work week outside class + 12 hours in class = a 48 hour week (i.e., **College is a full time job!**).
- Or to put it differently **75%** of what you accomplish is done on your own. This may be vastly different from your experience in other courses. You therefore must accept responsibility for much of your own learning.
- This means for anatomy, you need to study 12 hours a week! Read that again...Yep, that’s what it takes.
- If you work a part-time job, you are just doubling or even tripling your work load. Time management is therefore crucial to your success. To study 12 hours a week we suggest getting a calendar, marking all your exam dates on it, and preparing a weekly schedule of study/play/work time.
So how do you become an “A” student? Well it really is simple isn’t it? You must come to lab and you must study...for learning. Seems easy enough to say, but is often more difficult to put into practice. The feeling of being lost or overwhelmed by the material is not uncommon. Neither are the feelings of uneasiness and frustration. A positive attitude is difficult to maintain when frustration rears up. If you are unfamiliar with how to study for a science course, see your instructor for help or use the study tips posted on your lecture instructor’s Blackboard site.

### Tentative Human Anatomy Lab Schedule – FALL 2017 - All Sections

<table>
<thead>
<tr>
<th>Week of</th>
<th>Lab Number, Topic, &amp; Assignments (Schedule Subject to Change)</th>
<th>Practical Exam &amp; Activity Schedule**(510 points available)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 3rd</td>
<td>2. Tissues, Membranes &amp; Integumentary System; Microscope slides, Models, and slide show Exercises 4 &amp; 5: <em>LM</em> p. B7-B12 (Appendix B – Summary Word List)</td>
<td><strong>MICROSCOPE ACTIVITY (in lab) = 5 pts</strong>&lt;br&gt;My Score = ___________</td>
</tr>
<tr>
<td></td>
<td><em>Due to the LABOR DAY Holiday Students in Monday Labs MUST ATTEND another LAB Section this Week</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review and Prepare for Lab by filling out the exercises prior to coming to lab this week.</td>
<td></td>
</tr>
<tr>
<td>Sept. 24th</td>
<td>5. Regional Anatomy: Thorax, Back, and Abdomen Muscles (N, A, &amp; Inn.) &amp; Muscles attaching upper extremity to thorax. (N, A, &amp; Inn.) &amp; Osteology; Exercises 8, 9, &amp; 10: <em>LM</em> p. B31- B34 (Appendix B – Summary Word List)</td>
<td>Review and Prepare for Lab by filling out the exercises prior to coming to lab this week.</td>
</tr>
<tr>
<td>Week of</td>
<td>Lab Number, Topic, &amp; Assignments (Schedule Subject to Change)</td>
<td>Practical Exam &amp; Activity Schedule**(510 points available)</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Nov. 5&lt;sup&gt;th&lt;/sup&gt;</td>
<td>11. Digestive and Respiratory Anatomy: Mink Dissection, Models, &amp; Histology; Exercises 13 &amp; 14. <strong>LM</strong> p. A23-A26 (Mink Resp. &amp; Dig. Dissection) <strong>LM</strong> p. B55-B57 (Appendix B – Summary Word List)</td>
<td>Review and Prepare for Lab by filling out the exercises prior to coming to lab this week. <strong>LAST DAY TO DROP or WITHDRAW</strong> = Fri Nov. 3&lt;sup&gt;rd&lt;/sup&gt;</td>
</tr>
<tr>
<td>Week of</td>
<td>Lab Number, Topic, &amp; Assignments (Schedule Subject to Change)</td>
<td>Practical Exam &amp; Activity Schedule**(510 points available)</td>
</tr>
<tr>
<td>----------</td>
<td>---------------------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Nov. 19th</td>
<td>14. Thanksgiving Week = FREE OPEN LAB. No formal lab meetings this week. Students are STRONGLY encouraged to attend open lab.</td>
<td>Use the time to review exercises on your own this week in lab. You may come and go anytime Mon-and Tuesday</td>
</tr>
</tbody>
</table>
My Score = ____________ |

**Please note:** Practical Exams are given at the beginning of lab. No extra time will be given if you are late. *Please note, students in split labs will always take the practical during the first lab meeting of the week*. Lab exercises will always follow the practical exam. You are responsible for bringing relevant materials for lab study (e.g. text, coloring book, lab manual, dissection kit).

**Angelo State University – Honor Code:**

ASU expects its students to maintain complete honesty and integrity in all of their academic pursuits. Students are responsible for understanding and following the Academic Honor Code as outlined on the university’s web site and in the Student Handbook. In other words, don’t cheat.

**Special Needs/Disability Statement:**

Persons with disabilities which may warrant academic accommodations must contact the Student Life Office, Room 112 University Center, in order to request and officially implement academic accommodations. Students must do so at least one week prior to any course assessments or accommodations may not be able to be made.

**Withdrawal From the Course:**

Contrary to what many students believe, you are not automatically withdrawn from a course if you cease to attend lectures or labs. If you wish to discontinue participation in human anatomy lab, you must formally withdraw by seeing your lecture instructor. Dropping the lecture automatically drops the lab, no separate drop slip is necessary. Failure to follow this procedure can result in a grade of F appearing on your academic transcript. The last day to withdraw from classes for the FALL 2018 semester is THURS. Nov. 1st.
I, ______________________________________, (print your name) have read the information contained in the biology 2423 Human Anatomy lab syllabus for the **FALL 2018 semester** at Angelo State University and fully understand the expectations and requirements for completing this lab successfully. In addition, I pledge to maintain the highest standards of academic honesty, integrity, and discipline while I am enrolled in this course. (Please turn this in to your LAB instructor).

**LECTURE** section (day & time) ________________________________.

**LECTURE** Instructors Name__________________________________________.

Academic Major ________________________________________________________.

Academic Classification __________________________________________________.

ASU ID # ________________________________________________________________.

ASU Email address and other email address you check regularly (required):
   ________________________________________________________________________.

Phone # (optional) ______________________________. In some rare cases I have found it necessary to contact a student.

*I acknowledge I have received and am responsible for the material contained in the syllabus.*

**SIGNATURE:** ____________________________________________________________.

**DATE:** __________________________.