BIOL 2320   Human Anatomy

Welcome to Anatomy

The teaching staff welcomes you all to BIOL 2320 Human Anatomy at USU Moab. This document is meant to provide an introduction to the class; the general organization and philosophy of the course. If you have questions not covered here, contact the course leader.

Teaching staff:

Course leader:

Terry Dial, PhD              terry.dial@usu.edu; trdial@gmail.com; mobile: 310-702-6796

Teaching assistants:

Marianne Becnel           marianneb@mrhmoab.org
Ian VanMeter                 ian.t.vanmeter@gmail.com

Course organization and philosophy:

Lectures:

There are several different types of anatomy lectures. Some lectures are meant to provide broad overviews/organizational schemes to help you organize and understand anatomy. This is especially true of several of the early lectures in the first block. Some lectures are very focused on specific anatomy of an especially important and/or difficult aspect of anatomy. We do a bit of embryology as part of the anatomy course, so some lectures are focused there. Sprinkled throughout the course are “functional anatomy” lectures, which are concerned more with how things work. Lectures are not typically power points. You'll have handouts with some pictures and text, and during lecture we'll present the material and “fill in” the handout. The handout will be scanned and posted following lecture.

Laboratories:

Labs are broken into WET and DRY laboratory sessions.

The focus of the WET laboratory sessions is to provide you with as a detailed a study of anatomy as we can here in Moab, with the resources provided. We will take advantage of laboratory space at Grand County high school to perform comparative anatomical dissections on fetal pigs, and a few other
comparative models. We will plan one or more field trips to USU Eastern in Price for a day immersed in study of an actual human cadaver.

The purpose of dissection is to learn the intricacies of anatomy by revealing and identifying specific muscles, nerves, blood vessels, etc. To aid you in your dissections there are dissection guides that include detailed instructions and figures, print atlases that include photographs of dissected pig models, and of course the teaching staff working with you in the laboratory. Ultimately you and your classmates do the dissections, and dissection is, by its very nature, an exploratory process. Some trial and error is necessary, mistakes are inevitable, and periods of frustration are unavoidable. We believe the rewards of revealing and understanding how the human body is put together far outweigh the frustration, and we encourage you to approach the course with a spirit of exploration and curiosity.

*Note: Although the dissection process is destructive, cadavers will be treated with respect. Neither photography nor videotaping is allowed in the lab, except in preparation for your prosections.

In an attempt to provide human cadaver-like exposure throughout the term, the University has purchased access to an online digital anatomy tool: BioDigital. We will utilize BioDigital throughout the term to familiarize ourselves with the human cadaver during DRY laboratory sessions. These dry labs are held on Mondays following lecture and are meant to facilitate visualization of the concepts/regions to be covered in WET lab that week. The digital platform is available to you throughout the term and should be used regularly in off-class time to study.

Following Thanksgiving holiday, labs will go entirely remote. In lieu of face-to-face WET lab sessions for those two remaining weeks of term, we will hold individual prosections. Prosections are teaching dissections that each student will lead on an anatomical topic of their choice. You will be encouraged to research your topic using the primary literature and present utilizing any and all resources available in the course (comparative models, BioDigital, plastic 3D models, dissection atlases, etc.). The information shared during student prosections will be included on the final exam.

You will be provided with safety glasses, gloves, and all dissection tools necessary. Some students choose to wear scrubs in lab. Close-toed shoes are required.

Course Description:

Human Anatomy BIOL 2320 explores the anatomical organization of the human body, viewing anatomical structures as a product of development and functional demand. Human Anatomy provides an opportunity for students of diverse backgrounds, interests, and goals to emerge with an understanding of the human body as a cornerstone of medical science.

Grading:

Anatomy is spread over 4 blocks (blocks 1-4), and includes questions from 4 written exams (25 points each) and 3 practical exams (20 points each). Additionally, there will be 10 prelabs to read prior to
attending your respective section. Those prelabs are worth 5 points each. There will also be 5 practice quizzes/practical exams worth 5 points each. Prosections will be worth 15 points.

Breakdown:

4 Written exams × 25pts = 100
3 Practical exams × 20pts = 60
10 Prelabs × 5pts = 50
5 Practice Qs × 5pts = 25
1 Prosection × 15pts = 15

Total points available = 250

Grade Scheme

The following grading standards will be used in this class:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>100 % to 93.0%</td>
</tr>
<tr>
<td>A-</td>
<td>&lt; 93.0 % to 90.0%</td>
</tr>
<tr>
<td>B+</td>
<td>&lt; 90.0 % to 87.0%</td>
</tr>
<tr>
<td>B</td>
<td>&lt; 87.0 % to 83.0%</td>
</tr>
<tr>
<td>B-</td>
<td>&lt; 83.0 % to 80.0%</td>
</tr>
<tr>
<td>C+</td>
<td>&lt; 80.0 % to 77.0%</td>
</tr>
<tr>
<td>C</td>
<td>&lt; 77.0 % to 73.0%</td>
</tr>
<tr>
<td>C-</td>
<td>&lt; 73.0 % to 70.0%</td>
</tr>
<tr>
<td>D+</td>
<td>&lt; 70.0 % to 67.0%</td>
</tr>
<tr>
<td>D</td>
<td>&lt; 67.0 % to 60.0%</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 59.0 % to 0.0%</td>
</tr>
</tbody>
</table>

Course Objectives and Goals:

The primary objective of the course is for students to gain a working knowledge of the normal gross anatomy of the human body. In that regard, our goals for students are:

- to understand the spatial and functional relationships of anatomical structures in adults
- to understand the basics of cross-sectional anatomy and the interpretation of 2-D images (such as x-rays and MRI)
- to acquire a basic background in human embryology (developmental anatomy)
- to achieve an understanding and an appreciation of the normal range of anatomical variation
• to understand on a basic level the effects of trauma, pathologies, and congenital anomalies

A broad secondary objective of the Human Anatomy course is to assist in the understanding and practice of professionalism. Because of the extensive time spent working closely with your classmates and instructors in the anatomy laboratory, the Human Anatomy course is well-suited to allow students early practice in several aspects of professionalism, including:

• effective collaboration and communication with fellow students and members of the teaching staff
• willingness to seek help when necessary and to accept constructive criticism
• punctuality and consideration for team members, clinical guests, and the teaching staff
• active and effective participation in labs, including clinical workshops and staff prosections
• through student prosections, integration of anatomical knowledge with the scientific literature and effective communication with peers.

Course Schedule/Outline

Anatomy Course schedule 2020.pdf

Attendance and Excused Absences Policy

We expect you to be prepared, on-time, professional and engaged throughout the term. Contact the course leader with any attendance/absence issues as soon as they come up. Due to the remote/hybrid nature of this term and that many of you work in addition to attending school, we are willing to be lenient with this policy. But, your best chance of success in the course is constant engagement.

Library Services

All USU students attending classes in Logan, at our Regional Campuses, or online can access all databases, e-journals, and e-books regardless of location. Additionally, the library will mail printed books to students, at no charge to them. Students can also borrow books from any Utah academic library. Take advantage of all library services and learn more at libguides.usu.edu/rc. (http://libguides.usu.edu/rc)

Classroom Civility

Utah State University supports the principle of freedom of expression for both faculty and students. The University respects the rights of faculty to teach and students to learn. Maintenance of these rights requires classroom conditions that do not impede the learning process. Disruptive classroom behavior will not be tolerated. An individual engaging in such behavior may be subject to disciplinary action. Read
Student Code Article V Section V-3 (https://studentconduct.usu.edu/studentcode/article5) for more information.

University Policies & Procedures

COVID-19 Classroom Protocols

In order to continue to provide a high standard of instruction at USU, and to limit the spread of COVID-19 during the pandemic, students are asked to follow certain classroom protocols during the fall 2020 semester. These protocols are in place not only for your safety but also the safety of the rest of the campus community. You will be asked to clean your desk area at the start of each class, sit in designated seats, wear face coverings, and follow dismission instructions. There may be individual medical circumstances that prevent some students from using face coverings. These circumstances will be rare, but if they do exist, we ask that everyone be respectful. It is imperative that we each do our part so that on-campus instruction can continue.

Academic Freedom and Professional Responsibilities

Academic freedom is the right to teach, study, discuss, investigate, discover, create, and publish freely. Academic freedom protects the rights of faculty members in teaching and of students in learning. Freedom in research is fundamental to the advancement of truth. Faculty members are entitled to full freedom in teaching, research, and creative activities, subject to the limitations imposed by professional responsibility. Faculty Code Policy #403 (http://www.usu.edu/hr/files/uploads/Policies/403.pdf) further defines academic freedom and professional responsibilities.

Academic Integrity – "The Honor System"

Each student has the right and duty to pursue his or her academic experience free of dishonesty. To enhance the learning environment at Utah State University and to develop student academic integrity, each student agrees to the following Honor Pledge:

"I pledge, on my honor, to conduct myself with the foremost level of academic integrity."

A student who lives by the Honor Pledge is a student who does more than not cheat, falsify, or plagiarize. A student who lives by the Honor Pledge:

- Espouses academic integrity as an underlying and essential principle of the Utah State University community;
- Understands that each act of academic dishonesty devalues every degree that is awarded by this institution; and
- Is a welcomed and valued member of Utah State University.

Academic Dishonesty

The instructor of this course will take appropriate actions in response to Academic Dishonesty, as defined the University's Student Code. Acts of academic dishonesty include but are not limited to:
• **Cheating**: using, attempting to use, or providing others with any unauthorized assistance in taking quizzes, tests, examinations, or in any other academic exercise or activity. Unauthorized assistance includes:
  - Working in a group when the instructor has designated that the quiz, test, examination, or any other academic exercise or activity be done “individually;”
  - Depending on the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
  - Substituting for another student, or permitting another student to substitute for oneself, in taking an examination or preparing academic work;
  - Acquiring tests or other academic material belonging to a faculty member, staff member, or another student without express permission;
  - Continuing to write after time has been called on a quiz, test, examination, or any other academic exercise or activity;
  - Submitting substantially the same work for credit in more than one class, except with prior approval of the instructor; or engaging in any form of research fraud.

• **Falsification**: altering or fabricating any information or citation in an academic exercise or activity.

• **Plagiarism**: representing, by paraphrase or direct quotation, the published or unpublished work of another person as one’s own in any academic exercise or activity without full and clear acknowledgment. It also includes using materials prepared by another person or by an agency engaged in the sale of term papers or other academic materials.

For additional information go to: [ARTICLE VI. University Regulations Regarding Academic Integrity](https://studentconduct.usu.edu/studentcode/article6)

**Sexual Harassment/Title IX**

Utah State University is committed to creating and maintaining an environment free from acts of sexual misconduct and discrimination and to fostering respect and dignity for all members of the USU community. Title IX and [USU Policy 339](http://www.usu.edu/policies/339) address sexual harassment in the workplace and academic setting.

The university responds promptly upon learning of any form of possible discrimination or sexual misconduct. Any individual may contact USU’s [Office of Equity](https://equity.usu.edu/) for available options and resources or clarification. The university has established a complaint procedure to handle all types of discrimination complaints, including sexual harassment ([USU Policy 305](http://www.usu.edu/policies/305/)), and has designated the Office of Equity Director/Title IX Coordinator as the official responsible for receiving and investigating complaints of sexual harassment.

**Withdrawal Policy and "I" Grade Policy**

Students are required to complete all courses for which they are registered by the end of the semester. In some cases, a student may be unable to complete all of the coursework because of extenuating circumstances, but not due to poor performance or to retain financial aid. The term ‘extenuating’
circumstances includes: (1) incapacitating illness which prevents a student from attending classes for a minimum period of two weeks, (2) a death in the immediate family, (3) financial responsibilities requiring a student to alter a work schedule to secure employment, (4) change in work schedule as required by an employer, or (5) other emergencies deemed appropriate by the instructor.

Students with Disabilities

USU welcomes students with disabilities. If you have, or suspect you may have, a physical, mental health, or learning disability that may require accommodations in this course, please contact the Disability Resource Center (DRC) (http://www.usu.edu/drc/) as early in the semester as possible (University Inn # 101, (435) 797-2444, drc@usu.edu (mailto:drc@usu.edu)). All disability related accommodations must be approved by the DRC. Once approved, the DRC will coordinate with faculty to provide accommodations.

Students who are at a higher risk for complications from COVID-19 or who contract COVID-19 may also be eligible for accommodations.

Diversity Statement

Regardless of intent, careless or ill-informed remarks can be offensive and hurtful to others and detract from the learning climate. If you feel uncomfortable in a classroom due to offensive language or actions by an instructor or student(s) regarding ethnicity, gender, or sexual orientation, contact:

- Division of Student Affairs: https://studentaffairs.usu.edu (https://studentaffairs.usu.edu/), (435) 797-1712, studentservices@usu.edu (mailto:studentservices@usu.edu), TSC 220
- Student Legal Services: https://ususa.usu.edu/student-association/student-advocacy/legal-services (https://ususa.usu.edu/student-association/student-advocacy/legal-services), (435) 797-2912, TSC 326,
- Access and Diversity: http://accesscenter.usu.edu (http://accesscenter.usu.edu), (435) 797-1728, access@usu.edu (mailto:access@usu.edu), TSC 315
- Multicultural Programs: http://accesscenter.usu.edu/multiculture (http://accesscenter.usu.edu/multiculture), (435) 797-1728, TSC 315
- LGBTQA Programs: http://accesscenter.usu.edu/lgbtqa (http://accesscenter.usu.edu/lgbtqa/), (435) 797-1728, TSC 3145
- Provost's Office Diversity Resources: https://www.usu.edu/provost/diversity (https://www.usu.edu/provost/diversity/), (435) 797-8176

You can learn about your student rights by visiting:
The Code of Policies and Procedures for Students at Utah State University: https://studentconduct.usu.edu/studentcode

Grievance Process
Students who feel they have been unfairly treated may file a grievance through the channels and procedures described in the Student Code: Article VII (https://studentconduct.usu.edu/studentcode/article7).

Full details for USU Academic Policies and Procedures can be found at:

- **Student Conduct**  (http://www.usu.edu/studentconduct)
- **Student Code**  (https://studentconduct.usu.edu/studentcode/)
- **Academic Integrity**  (https://studentconduct.usu.edu/studentcode/article6)
- **USU Selected Academic Policies and Procedures**  (http://www.usu.edu/provost/faculty-life/syllabus.cfm)
- **Academic Freedom and Professional Responsibility Policy**  (http://www.usu.edu/hr/files/uploads/Policies/403.pdf)

**Emergency Procedures**

In the case of a drill or real emergency, classes will be notified to evacuate the building by the sound of the fire/emergency alarm system or by a building representative. In the event of a disaster that may interfere with either notification, evacuate as the situation dictates (i.e., in an earthquake when shaking ceases or immediately when a fire is discovered). Turn off computers and take any personal items with you. Elevators should not be used; instead, use the closest stairs.

**Mental Health**

Mental health is critically important for the success of USU students. As a student, you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce your ability to participate in daily activities. Utah State University provides free services for students to assist them with addressing these and other concerns. You can learn more about the broad range of confidential mental health services available on campus at Counseling and Psychological Services (CAPS) (https://counseling.usu.edu).

Students are also encouraged to download the “SafeUT App” (https://healthcare.utah.edu/uni/programs/safe-ut-smartphone-app) to their smartphones. The SafeUT application is a 24/7 statewide crisis text and tip service that provides real-time crisis intervention to students through texting and a confidential tip program that can help anyone with emotional crises, bullying, relationship problems, mental health, or suicide related issues.

**Course Summary:**

https://usu.instructure.com/courses/612230/assignments/syllabus
<table>
<thead>
<tr>
<th>Date</th>
<th>Details</th>
<th>Due by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sun Sep 6, 2020</td>
<td>📡 Block 1 Quiz (<a href="https://usu.instructure.com/courses/612230/assignments/2992818">https://usu.instructure.com/courses/612230/assignments/2992818</a>)</td>
<td>11:59pm</td>
</tr>
<tr>
<td>Sun Sep 13, 2020</td>
<td>📡 Block 2 Discussion (<a href="https://usu.instructure.com/courses/612230/assignments/2992828">https://usu.instructure.com/courses/612230/assignments/2992828</a>)</td>
<td>11:59pm</td>
</tr>
<tr>
<td>Sun Sep 20, 2020</td>
<td>📡 Block 2 Quiz (<a href="https://usu.instructure.com/courses/612230/assignments/2992822">https://usu.instructure.com/courses/612230/assignments/2992822</a>)</td>
<td>11:59pm</td>
</tr>
<tr>
<td></td>
<td>📡 Block 3 Discussion (<a href="https://usu.instructure.com/courses/612230/assignments/2992829">https://usu.instructure.com/courses/612230/assignments/2992829</a>)</td>
<td>11:59pm</td>
</tr>
<tr>
<td></td>
<td>📡 Block 3 Quiz (<a href="https://usu.instructure.com/courses/612230/assignments/2992811">https://usu.instructure.com/courses/612230/assignments/2992811</a>)</td>
<td>11:59pm</td>
</tr>
<tr>
<td>Tue Sep 22, 2020</td>
<td>📡 Block 1 Assignment (<a href="https://usu.instructure.com/courses/612230/assignments/2992846">https://usu.instructure.com/courses/612230/assignments/2992846</a>)</td>
<td>11:59pm</td>
</tr>
<tr>
<td>Mon Sep 28, 2020</td>
<td>📡 Block 1 Discussion (<a href="https://usu.instructure.com/courses/612230/assignments/2992827">https://usu.instructure.com/courses/612230/assignments/2992827</a>)</td>
<td>11:59pm</td>
</tr>
<tr>
<td>Tue Oct 20, 2020</td>
<td>📡 Block 2 Assignment (<a href="https://usu.instructure.com/courses/612230/assignments/2992847">https://usu.instructure.com/courses/612230/assignments/2992847</a>)</td>
<td>11:59pm</td>
</tr>
<tr>
<td>Tue Nov 17, 2020</td>
<td>📡 Block 3 Assignment (<a href="https://usu.instructure.com/courses/612230/assignments/2992848">https://usu.instructure.com/courses/612230/assignments/2992848</a>)</td>
<td>11:59pm</td>
</tr>
<tr>
<td></td>
<td>📡 Block 13 Quiz (<a href="https://usu.instructure.com/courses/612230/assignments/2992815">https://usu.instructure.com/courses/612230/assignments/2992815</a>)</td>
<td>11:59pm</td>
</tr>
<tr>
<td>Sun Dec 6, 2020</td>
<td>📡 Block 4 Discussion (<a href="https://usu.instructure.com/courses/612230/assignments/2992837">https://usu.instructure.com/courses/612230/assignments/2992837</a>)</td>
<td>11:59pm</td>
</tr>
<tr>
<td>Tue Dec 8, 2020</td>
<td>📡 Block 4 Assignment (<a href="https://usu.instructure.com/courses/612230/assignments/2992844">https://usu.instructure.com/courses/612230/assignments/2992844</a>)</td>
<td>11:59pm</td>
</tr>
<tr>
<td></td>
<td>📡 Assignment Template (<a href="https://usu.instructure.com/courses/612230/assignments/2992840">https://usu.instructure.com/courses/612230/assignments/2992840</a>)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>📡 Classic Quiz Template (<a href="https://usu.instructure.com/courses/612230/assignments/2992814">https://usu.instructure.com/courses/612230/assignments/2992814</a>)</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Details</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>📚 Practice Quiz (Remotely Proctored) (<a href="https://usu.instructure.com/courses/612230/assignments/2992825">https://usu.instructure.com/courses/612230/assignments/2992825</a>)</td>
<td></td>
</tr>
</tbody>
</table>