

# **Biology 387: Human Anatomy Syllabus – Online, Spring 2021**

## **Course Overview:**

### ***Spring “Times”:***

This term human anatomy will be offered in an entirely online format; times are asynchronous, except for scheduled review sessions and assignment/exam deadlines. If you do poorly with asynchronous learning, attend office hours. You may complete the assignments earlier as you wish.

Most recommendations indicate a student should spend 3 hours studying per college credit, per week for a traditional 15 week course (Cornell University conducted several studies on it). **The course videos, which combine both lectures and demonstrations with laboratory models, total ~76.5 hours of material.** Therefore, you are recommended to spend: 180 hours – 76.5 hours = 103.5 outside, *additional* hours for this 4 credit course...or more if the topic isn't making sense!!!

### ***F.Y.I.:***

**A large volume of content is covered in this course.** The rigor of this course is maintained both to best prepare students majoring in a variety of subjects and to match its 300-level designation. Studying for this course is quite unlike studying for many other courses. Since a substantial amount of translation is needed to understand course content, it will be relatively easy to fall behind without continuous review, to say nothing of the least in trying to binge-learn the material. If you are not a crammer, or even if you think you are, you are highly advised to study multiple times a week if not a little bit each day.

### ***Instructor:***

Lindsay R. Dresang, Ph.D.

Office: Instruction from home (otherwise normally CBB 313)

Office/Zoom hours: Mondays @ 4:30 p.m. + Wednesdays @ 1:00 p.m., or schedule an appointment

E-mail: [LDresang@uwsp.edu](mailto:LDresang@uwsp.edu) *Phone contact is not available at this time.*

***Formal Course Description:*** (Prereq.: BIOL 111, 160, 285, 286, 287, or 385) Examine human anatomy using models, diagrams, X-rays, digital media, histology, and prosected cadaver demonstrations. Complements BIOL 385 to provide general background in human structure and function. Recommended for students interested in medicine, physical therapy, pharmacy, dietetics, and related health fields.

***Course Objectives:*** Anatomy has layers upon layers of detail. While the amount of material covered in this class is daunting, it will prepare a wide range of students interested in continuing their education in several related topics, from graduate-level anatomy, to pathology, neurobiology, and even assessments of diet & nutrition impacts on organ systems. In this class you will:

- 1) Learn and apply the language(s) of anatomy, including how to define spatial relationships between different structures in anatomical position;
- 2) Evaluate how multiple organ systems are arranged within a specific region, both in two- and three-dimensions;
- 3) Relate structures of embryonic and fetal development to the final adult structures;
- 4) Recognize how each major organ's structure, histology, and/or overall position is related to its function; and
- 5) Apply structure and function relationships in various clinically-relevant pathologies, common injuries, sources of pain and damage, or related pertinent contexts.

Informally, you will also be trained to recognize patterns in anatomy & histology. *Without pattern recognition, studying this course would be impractical.*

***Required Materials:*** Have these materials available for class every day.

**Canvas main course page AND the model/X-ray library (it's also linked in the first module of the main page)**

**Human Anatomy** by Marieb, Wilhelm, and Mallat, 8<sup>th</sup> Ed.

If you have a copy with a different edition, I have not yet noticed a difference in any of the pages per reading assignments outlined in the course packet...you should still be OK.

**Course Packet “BIO 387: Human Anatomy”** by your instructor, available at the bookstore (ZERO profits are made from the sale of this course packet per regulation under copyright fair use agreements; its price is for printing and shelving)

The course packet is your primary resource for what will likely be on the test (with its cross-references to the textbook). I will be drawing in it for most recordings, BUT some portions of the packet are designated for you to fill in on your own! The study of anatomy requires your outside commitment to the material *in addition* to what is covered in class. If you are used to reading content from textbooks without taking notes, and not preparing for exams by reviewing your own notes and those you take in class, you are in for a rude awakening. Human Anatomy requires learning many terms in Latin, Greek, recognizing 2-D and 3-D relationships, functions related to form, and more; what might work for other classes just might not work in studying for this one.

**Your greatest resource is each other.** While I recognize that studying with your peers will be a challenge while also social distancing, consider setting up zoom meetings with others and participate in digital tutoring opportunities. Alternatively, see if you can attend my digital office hours with a group of other students so that you can meet other students and learn from questions that others may have had. The course is never curved, so you are not in competition with each other.

**Highly Suggested Resources:**

**A Photographic Atlas for Anatomy & Physiology** by Hebert, Heisler, Krabbenhoft, Malakhova, and Chinn, 1<sup>st</sup> Ed. (the only reason this resource is not required is that it is a paper, unbound copy that does not lend well to the text rental system)

**Optional Resources:** There are many different reference textbooks, or even digital applications, which you may find useful while studying this topic. The only app I have tested out is called **3D4Medical**, but then again, I did not use it in creating the course videos. (I just learned about it at a teaching conference in March from the Pittsburgh PT instructor; he really likes it for undergrad and grad instruction.) Apps can really get expensive, so I'd recommend skipping them unless you're *really* into 3D-interaction software. Here are some resources which are available at the bookstore:

**An Atlas of Human Anatomy** by Netter, 5<sup>th</sup> Ed., but ANY edition will do fine (this supplemental atlas is used frequently in many medical/health programs; it comprehensively highlights structures in a particular view, which can be intimidating; even the coloring book is fairly useful)

**Lippencott Williams & Wilkens Atlas of Anatomy** by Tank and Gest, 1<sup>st</sup> Ed. (an alternate supplemental atlas which focuses on a select group of structures in a particular view at a time; it is less comprehensive than the Netter series, but that can have its advantages at times)

**A Visual Analogy Guide to Human Anatomy** by Krieger, 4<sup>th</sup> Ed. (somewhere between a coloring book and a study guide; it is helpful if you really don't have any background in the topic as it makes excellent visual analogies; others may find the resource too basic)

**The Anatomy Coloring Book** by Kapit and Elson 4<sup>th</sup> Ed. (somewhere between a coloring book and a full textbook; it is helpful if you really love to draw/fill in drawings to learn; others may find the resource way too dense)

**Class Recordings:** For class recordings I will discuss materials from the textbook, course packet, handouts/websites on Canvas, and provide demonstrations with anatomical models, X-rays, cadaveric images, and other materials. Most recordings are delivered via Kaltura Capture with two screens using a picture-in-picture format. This format allows me to draw under the document camera or demonstrate structures on the models used for your exams while simultaneously being able to jump to the digital content. Review sessions will be via Zoom; only attendees will can record sessions.

**Course Requirements and Grading:**

<b>Letter Grades (rounded at the hundredths):</b>	A = 100-94%	A- = 93.9-90%
B+ = 89.9-86%	B = 85.9-82%	B- = 81.9-78%
C+ = 77.9-74%	C = 73.9-70%	C- = 69.9-66%
D+ = 65.9-63%	D = 62.9-60%	F ≤ 59.9%

*\*B+ or better is needed for enrollment in BIO 487, a Survey in Human Dissection...your attendance, professionalism, and consistent participation are also evaluated...you could earn a B/B- and be let in, or you could earn an A and not be let in. It might also be possible to enroll in the course concurrently if you have earned an A- or better in BIOL 385 or BIOL 287 AND have an essay outlining your reasons for enrolling early, along with a recommendation from the 385/287 instructor.*

**Point Distribution (pts = points):**

Your grade will be based out of **400 points**; it will be *possible to earn 440 points* in this class. Here are your possible itemized points:

Graded Item	“Out of”	(Available)	Frequency	Base Pts	(Possible)
Exams	@ 100 pts	(108 pts)	× 3		
<u>Conceptual questions using diagrams, matching, multiple-multiple choice, etc.</u>					
	@ 50 pts	(54 pts)	× 3	= 150 pts	(162 pts)
<u>Practical-style fill-in-the-blank questions</u>					
	@ 50 pts	(54 pts)	× 3	= 150 pts	(162 pts)
Quizlets &	@ <i>most</i> *4-17 pts	( <i>same</i> )	× 3/unit	= ~95 pts	( <i>combined 108 pts</i> )
Discussion Posts	@ ~0.5 pts each (~1pt each)		× ~13	= ~5 pts	
Outside Extra Credit	*optional*	(4 pts each)	× 2	= 0 pts	(8 pts)
<b>Final</b>				<b>400 pts</b>	<b>(440 pts)</b>

\*Individual quizlets will vary in points and question number by topic; discussions may also vary. However, for any given unit there will be ~33⅓ pts assigned, 36pts possible.

**Exam Practical Questions:** Half of each exam will involve the identification of structures using an image of an anatomical model, X-ray, or other medium to be reported in a fill-in-the-blank format. Typically you will need to fill in multiple blanks, as a single questions may require you listing the feature, the organ, a function, or some other multifaceted aspect of that structure. On one hand, that might seem like there are more places to get mixed up...on the other hand, that means there is a TON of partial credit possible! There may be multiple terms for a particular structure, or multiple spellings...then again, there might not. A single letter difference may drastically change the meaning of a term (like abduct and adduct, which are opposing terms!). Therefore, your answers must be spelled correctly for credit. I can't give you a hard and fast rule regarding how many letter differences will equate to a certain amount of partial credit, or no credit at all. It comes down to a case-by-case scenario. My judgement calls are final.

**Warning:** The autograded score after every exam (and quizlet) will likely be the minimum obtainable score. The canvas software is very picky! Any differences in plural/singular form, capitalization, term sequencing, or even spacing relative to the way I registered acceptable answers on my end will result in an auto-grade of zero for that question. I add back part of the points later on if there was an error, and potentially all of the points if there was just a simple case of accidentally using ALL CAPS with a correct entry. I will need to manually check all practical answers, so you will may need patience before I announce corrected grades.

**Exam Conceptual Questions:** The other half of each exam will involve your recall, application, evaluation, etc. in a format which can be assessed using matching questions (either using terms, descriptions, or diagrams), ordinal questions (placing things in order), multiple-multiple choice questions (you select the number of correct options based on a number requested), or other format. You might still need to recognize structures practically on occasion, but it will involve drop down menus or bullets to click instead of filling in blanks. Questions will randomize options; unfortunately, this means some drop-down menus with letters A-Z might not be arranged in that order...sorry, I can't change that.

**YOU MUST COMPLETE ALL EXAMS USING HONORLOCK.** The HonorLock format requires a webcam and microphone, along with a pre-exam and during-exam recording of you and your surroundings. Talking, other people walking in the room, repeatedly looking somewhere that a phone might be hidden off camera, etc. will all flag the session. If your pet or toddler walked in the room, a reviewer can usually judge that a flag is not needed. You can use a blank sheet of paper to write on if you wish to take notes during the exam, but you are NOT allowed to use any other resources. Questions are selected randomly from a databank that I have generated; therefore, questions might not be the same for everyone. Only one attempt is permitted per exam. You will not have access to exam questions and/or answers post completion. You can arrange to review your exam by appointment via zoom, but cannot record the session in any way. **If you cannot use HonorLock, you must contact me ASAP!!!!**

**Extra Credit Write-ups/Talks/Activities:** It is possible for you to earn outside extra credit, up to a maximum of 8 points maximum regardless of which type or types you complete. Specific details are posted on Canvas in the “start here” module.

**Discussion Posts:** Discussion posts will be used as a means for me to answer your questions and share these answers with the class. You will need to post a unique question per major topic for a full point. If you really have no questions, you can literally submit a post of “no question” instead, or indicate under a thread “same question” if your only question was already asked. These latter two examples will only be worth a half a point. Forgetting to post anything before the deadline means you lose out on the half point of which most posts are valued. One or two discussion posts may break from this format (see instructions on canvas). **Inappropriate comments / non-content questions incur negative points.**

**Quizlets:** Most quizlet questions will involve a combination of identifications (especially using the online model/X-ray library), translations, position relationships, function assignments, etc. forms of questions. Most questions will match those you may encounter on exams...they may even be recycled for exams. Remember, not all practical-style questions will auto-grade correctly, so I will need to announce when quizlet scores are updated. Since I will need to review all practical-style questions manual, you will only be allowed two attempts on each quiz. I will keep the higher of the two scores. **You CAN use your notes AND work in groups when completing quizlets!!!** I encourage you to collaborate with others (via zoom, for instance) and discuss which resources you used to answer different questions. These assignments are intended to best prepare you for the exams and learn which topics may need your further attention. However, you cannot submit a group quiz; all students must login and submit their own quiz responses.

### **Requests for Accommodations / Altered Schedules / Altered Content:**

In compliance with the Americans with Disabilities Act (ADA), I will make every effort to honor requests for reasonable accommodations made by individuals with disabilities. If you have a disability and require accommodations, please register with the Disability and Assistive Technology Center (6<sup>th</sup> floor Learning Resource Center in the Library) and *let me know as soon as possible*. Requests for accommodations, including university-sanctioned extra-curricular event conflicts, can be responded to most effectively if I receive the requests early. Examples of accommodations include alternate exam durations, assignment make-ups, etc. Such requests are confidential. More information about ADA at UWSP can be found on the human resources webpage <https://www.uwsp.edu/hr/Pages/Affirmative%20Action/ADA.aspx>.

If you are colorblind, even red-green colorblind, it does help to bring this information to my attention. I will try and avoid conflicting color combinations and change up the types of writing utensils I use to still distinguish different content I am highlighting, but I you might occasionally need a re-print of a note page. Just let me know if you do. If you are hard of hearing, UWSP has resources on campus to assist with closed-captioning, signing, etc., but do still let me know. If you require any clarification from me or altered note formats from me directly, also let me know.

### **UWSP Community Bill of Rights and Responsibilities:**

UWSP values a safe, honest, respectful, and inviting learning environment. A set of expectations for students and instructors, known as Student Rights and Responsibilities, is intended to help establish a positive living and learning environment. For more information go to the webpage for the Dean of Students, which outlines expectations for a respectful learning environment, as well as the an overview on school policies regarding academic misconduct. The *minimum* penalty for violating this policy is a recorded zero for the assignment in question. The Dean of Students webpage is found at: <https://www.uwsp.edu/dos/Pages/default.aspx>.

In addition to these standard words on rights and responsibilities, it is prudent to formally discuss class conduct. Specific topics in this class are of a sensitive nature. Please be conscientious of what you say/post and be respectful of each other. I want to maintain a comfortable learning environment, and also prepare you for appropriate conduct in your future health professions (certain conduct could get you kicked out of a graduate program, for instance). Inappropriate conduct in this class (including in online discussion threads) will get you kicked off of class access without re-entry until appropriate conduct is sincerely assured and provided in writing (the length of such writings will be dependent upon the extent of misconduct). **PLEASE, DO NOT TEST ME ON THIS POLICY.**

Additional food-for-thought: when you are studying several topics in this class, it is prudent to use terminology “as scientific as possible” when conducting searches (your search may still return more than you bargained for). This point is also a good reminder that certain topics that you study maybe shouldn’t be reviewed in public areas...most passers-by at a local coffee shop do not want to see cadaver images. Finally, any images taken in lab of the various materials *may* be subject to copyright. Posting images on an academic course page restricted to the instructors/students/TAs/tutors permitted to use these models is allowed under fair use laws, but doing the same on a public, shared site outside of class does not fall under fair use (in other words, think before you post, or better yet, don’t post at all).