

Biology 387: Human Anatomy Syllabus

Course Overview:

<i>Summer Times:</i>	Lecture:	CBB 320	MTWRF	8:45 a.m. – 10:15 a.m.
	Lab:	CBB 320	MTWRF	10:30 a.m. – 12:00 p.m.
<i>Fall Times:</i>	Lecture:	CBB 131	TRF	9:00 a.m. – 9:50 a.m.
	Lab 1:	CBB 320	W	2:00 p.m. – 4:50 p.m.
	Lab 2:	CBB 320	W	9:00 a.m. – 11:50 a.m.
<i>Spring Times:</i>	Lecture:	CBB 101	MWF	1:00 p.m. – 1:50 p.m.
	Lab ?:	CBB 320	R	8:00 a.m. – 10:50 a.m.
	Lab ?:	CBB 320	R	12:00 p.m. – 2:50 p.m.
	Lab ?:	CBB 320	F	9:00 a.m. – 11:50 a.m.

Exams: During the summer, exams take place in lecture/lab on Fridays of the 2nd, 4th, and 6th weeks. During the fall and spring, exams take place in lab over the 5th and 10th weeks, as well as over final's week (**either at 10:15 a.m. or 2:45 p.m. on Friday, December 21st**). Exams take place in lab.

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Formal Course Description: (Prereq.: BIOL 111 or 160 or 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 spacial 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 contexts.

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

Required Materials: Bring these materials to class every day.

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)

Human Anatomy by Marieb, Wilhelm, and Mallat, 8th Ed.

Highly Suggested Resources:

Electronic Device Capable of Taking D2L Quizzes...additional handouts may be worthwhile to access from such devices, posted under “important” or “optional” folders of units 1, 2, and 3

A Photographic Atlas for Anatomy & Physiology by Hebert, Heisler, Krabbenhoft, Malakhova, and Chinn, 1st 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. I hesitate to list potential apps, as they can really start to add up with each module that you buy, and certain apps are better suited to different electronic devices. Feel free to garner opinions from tutors, TAs, other students who have taken the class, etceteras. Here are some resources which are available at the bookstore or on the course website:

An Atlas of Human Anatomy by Netter, 5th 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, 1st 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, 4th 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 4th 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)

D2L Handouts posted under “extras” folders of units 1, 2, and 3 (these resources are available should you be interested in additional information about a particular topic...if you are able to relate anatomy with something else you are more interested in, like diet or dinosaur bones, it might help you remember different concepts)

BIO 399 Project Reviews posted on D2L (teaching assistants supervise open lab sessions, while also working on an independent study topic chosen between student and instructor; these projects give TA's an idea of what creating course resources is like, while also learning additional details about their topic; these projects are carefully reviewed by the instructor throughout their formation; students find them very helpful!!!)

If you are interested in completing a BIO 399 project after you have completed this course, let me know.

Model Pictures & Keys posted on D2L (there are a LOT of pictures for most of the available models, in addition to their keys when applicable, but be aware that not every image may be as crisp as you'd like or show the number you're trying to find...in other words, yes, you still have to study the models in lab; you can take your own pictures to study at home, but you cannot post pics on unsecured websites, not even facebook)

X-ray Library posted on D2L (only a few resources have been put together as a teaching assistant project, otherwise the images are unlabeled; 2 X-rays will be used on each exam)

Lectures & Labs: In class I will discuss materials from the textbook, course packet, handouts on D2L, and provide demonstrations with anatomical models, X-rays, prosected cadavers, and other materials. Recordings of lectures and lab discussions will be posted on D2L, but no recording is ever guaranteed or fool-proof. While the course packet is your primary resource for what will likely be on the test, portions of the packet are left blank for you to review various properties of structures on your own. The study of anatomy requires your outside commitment to the material *in addition* to what is covered in class. Supervised open lab times and digital libraries of the anatomical models & X-rays are available for outside class review. Cadavers will not be used for exams; X-rays will be used on exams.

Course Requirements and Grading:

Letter Grades (rounded at the hundredths):

A = 100-90% A- = 89.9-87.5% B+ = 87.4-85% B = 84.9-80% B- = 79.9-77.5% C+ = 77.4-75%
C = 74.9-70% C- = 69.9-67.5% D+ = 67.4-65% D = 64.9-60% 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 and be let in, or you could earn an A and not be let in.*

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			
Scantron	@ 50 pts	(54 pts)	×	3	=	150 pts	(162 pts)
Practical	@ 50 pts	(54 pts)	×	3	=	150 pts	(162 pts)
Quizzes	@ ~11pts	(12 pts)	×	9	=	100 pts	(108 pts)
Worksheets	@ 0pts	(-4 pts*)	×	12	=	0 pts	(-48 pts*)
Outside Extra Credit	*optional*	(4 pts)	×	2	=	0 pts	(8 pts)
Final						400 pts	(440 pts)

**Incomplete worksheets count against your overall grade.*

Exams: Each exam will have both a practical component and a scantron-based component. Both parts of the test will be taken at the same time. For the practical component, no word bank is provided, and spelling is taken into careful consideration. For some anatomical terms, a single letter change may drastically alter its meaning (i.e., abduct vs. adduct), whereas other terms may have multiple names or alternate spelling possibilities. Because of this variability, **I cannot give you a simple guideline of how much partial credit will or will not be awarded when one or two letters are out of place.** If spelling is not your strong suit, you will want to incorporate spelling into your study habits. The scantron used on exams may have more than one letter to fill in for your answer. The types of questions will include matching of terms, diagrams, cross-sections, double-column matching, and *multiple*-multiple choice questions. Scantron entries are final, so make sure you remember to "bubble-in" all of your answers. *Any exam copies withheld or copied digitally will result in forfeiture of your exam grade!*

Quizzes: Quizzes are designed to complement content covered in both lecture and lab up through a particular topic. The assigned due dates will vary somewhat depending on how quickly we progress through content. Quiz questions and exam questions are incredibly similar, and occasionally they are identical. The biggest difference between them is that practical-style questions will not *exactly* evaluate spelling; quizzes will instead include a word bank...then again, misspelled terms *may* be incorrect options in the word bank's choices. You will have a minimum of 2 attempts on each quiz. Quiz questions will randomize each time, so they may or may not be repeated in your question set for subsequent attempts. Select quizzes taken in lab may be submitted using a handed out paper form; the person in the group logging in *may* then be given an extra attempt. **Whichever score of your 2 attempts is higher will be retained in the grade book.**

You are **ENCOURAGED** to tackle quizzes in small groups of *currently enrolled* BIO 387 students. **HOWEVER**, you will each need to log-in to your own account to take the quiz. Be forewarned: I am **NOT** getting involved with who draws the short straw to take the quiz last when all the other group members have gone home! You are allowed to use notes, but these quizzes **ARE TIMED** (usually between 30-60 minutes each)! D2L will prevent you from making changes once time expires; often it will also prevent you from submitting your work if you start the quiz too close to the deadline, so be careful! There are other occasional hiccups with digital quizzes, so email me ASAP if you encounter submission errors. I can usually see the glitch through instructor access, and sometimes there is an easy fix.

The point of these quizzes is three-fold:

- 1) ensure you are maintaining the right study pace over each unit,
- 2) prepare you for the types of questions you will encounter for the exams, and
- 3) get you in the habit of discussing challenging material with me and/or your peers.

Try to review questions you answered incorrectly; they're likely your weaker topics. If you are still confused by the topic, talk with me, tutors, and other students to clear things up, preferably before you repeat the quiz or at least before the test. **You will have the option to ask me questions during the quiz if you take it in lab, but I will probably answer your question with a question.** If you are confused by a question on the quiz, **SPEAK UP!** It does you no good working as part of a group that speeds through the questions if you aren't given the chance to contribute, or at least being given the chance to say, wait, back up, I didn't understand that one, can you help me understand it!!!

After each quiz is complete, you will have access to *temporary feedback on questions answered incorrectly*. Starting one hour after the quiz's deadline passes, you will be able to access the *questions you completed, along with their answers*. Here are the instructions to review quiz questions, in brief:

Go to quizzes (an hour after the deadline) → click the quiz name → click the “dropdown actions” triangle (right of the quiz name) → click submissions → click the individual attempt.

You will not have access to *all* of the possible questions, but you can compare your attempted questions with the questions other students completed. Make of that what you will...

Worksheets: Worksheets will be handed out in lab and/or involve a progress check of your course packet. They include instructions on identification exercises or similar activities and verification of notes on assigned topics. You may think of these worksheets as lab-based attendance and participation exercises, since they will not be graded for accuracy. They are intended to provide focus on a particular set of structures tackled in lab/lecture. Too often students review material in their books and leave early, or figure they will master as much as they can on just the bones and then have very little time to try and cram in the muscles they are also supposed to learn. I am trying to break these habits. Be aware that if you miss an activities-based worksheet, it may not be possible to make up the activity outside of lab. Please let me know if you need to attend a different lab section. **Failure to complete a worksheet results in a deduction of up to 4 points.**

Extra Credit Write-ups/Talks/Activities: On occasion there are speakers or groups providing demonstrations which will significantly tie into the material we discuss in class. I will announce some of these talks or activities as they occur during the semester. If you think there is an upcoming event on campus that I have not announced, you can always check to see if it would count as part of an extra credit assignment. You will need to write up a talk summary and upload it to D2L. If you cannot attend one of the available talks, there are alternate write-up assignments possible. Additional details are found under extra credit guidelines of this packet. You may submit 2 summaries for extra credit, worth up to 4 points each; 1 is due ~mid-semester, and 1 is due the last day of regular class. Alternatively, if you are able to volunteer for activities set up by Colleges Against Cancer, you may earn 2 points per volunteer activity (again, maximum of 8 points).

Outside Lab Availability:

Tutoring in Lab: Outside lab availability is purely at the instructor's discretion, as well as the availability of tutors and teaching assistants (which can be fairly limited during summer months). Tutors and teaching assistants may need priority use of the available models, and they may also need to close lab early/suspend an open lab session according to unexpected scheduling conflicts. Please give tutors and teaching assistants your respect. Group tutoring schedules and open lab times supervised by teaching assistants will be announced sometime after the first week of class (again, fairly limited during summer months). Requests for one-on-one tutoring may be conducted in the lab, of course, they can also be arranged in the tutoring and learning center as well in accordance with their hours (a few anatomical models are even available over there).

Open Lab Policy: Should vandalism or theft arise, open lab times will either be restricted or abolished completely. Please let me and/or the overseeing teaching assistant/tutor know if you accidentally break something; do not have me assume the worst. Small parts are also easily lost, so please reassemble and put away any models after you are done studying them. Several complex models have their own container, but even if they don't and you can't figure out how to reassemble a model, at least put all the pieces together in one spot and set them aside for me to put back together later. Teaching assistants are there to help if you have questions about a model, and they can help you put things back together, but they are NOT there to pick up your mess for you!

I encourage group work in the lab, but please be mindful of others studying around you. Group work can occasionally get noisy if you forget your surroundings. It is still acceptable to carry on normal conversation, and even take quizzes in groups, during open lab. Designated quiet open lab times are possible, but only arranged on an as-needed basis. No, models **CANNOT** be checked out from open lab...sorry!

Electronic Devices:

Please arrive to lecture on time and silence your cellphone or turn it off! Cell phones, laptops, and e-readers are permissible in lab for you to reference the course resources on D2L. You will not be permitted to use such devices for non-class activities (i.e., facebook). Should you disregard this policy, you will not be allowed to use personal electronic devices in lab in the future. These devices can be quite useful when taking the quizzes, as only a few computers are available in the lab at any given time.

Absence Policy:

While you are not required to attend lecture and lab beyond the first few days of class, should you not attend class regularly it will be to your downfall. Anatomy is not a subject you can learn on your own just by reading a textbook (at least, not very well). **It is imperative that you study the anatomical models in lab and work with others!** That being said, I cannot make you study how I think you should. If you miss a lecture or lab, you do not need to email me. You will, however, miss out on completing in-lab worksheets without otherwise arranging to attend another lab that same week (resulting in a loss of 4 points). Download the recording from D2L and borrow someone's notes to catch up on the days that you miss. In the event that an absence occurs during one of the scheduled exams, **YOU MUST CONTACT ME IMMEDIATELY!** Not all absences will be honored for potential make-up exams. **I will notify the registrar that you have stopped attending should you fail to complete 3 assignments in a row.**

Accommodations:

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 (6th 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 extended quiz durations, scheduling an adjacent room with proctor for quieter test-taking, use of ear plugs, etceteras. Such requests are confidential. More information about the ADA at UWSP can be found under this subsection of the human resources webpage at <https://www.uwsp.edu/hr/Pages/Affirmative%20Action/ADA.aspx>.

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 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). Some of the materials made available in lab have been willed to the university and should be treated with respect. Inappropriate conduct in this class and/or open lab will get you kicked out 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: if you have an electronic device used for supplemental study in lab, 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 (in other words, think before you post, or better yet, don't post at all).