

# Biology 487: A Survey of Human Dissection

*Times:* Lab: TNR 258 \*F **10:00am**-2:00pm  
\*2 hour shift-work within this schedule to-be-discussed in class

*Instructor:* Lindsay R. Dresang, Ph.D.  
Office: TNR 235  
Office hours: TR @ 2:00 p.m.  
or by appointment (can meet in the lab)  
E-mail: [LDresang@uwsp.edu](mailto:LDresang@uwsp.edu)  
Phone: 715-346-2627

**Course Description:** (Prereq: BIO 387 with a grade of B+ or better and permission from the instructor.) Additional study of human anatomy by dissecting a cadaver to provide prosected cadaver demonstrations for BIO 387. Complements BIO 387 with an introduction to cadaver dissection and review of human gross anatomy, but dissection is not exhaustive and is not the equivalent of a medical school dissection.

**Required Materials:** Clinically Oriented Anatomy by Kieth L. Moore *et al.*

**Additional Resources:** Some documents will be posted on the course website, Desire2Learn (D2L), including an inventory of surgical/dissection instruments, images of cadaver pathology from prior semesters, supplemental videos, etceteras. Beyond these resources, the following supplemental texts may be available in class, or are available for purchase in the campus bookstore. If you are uncertain as to whether or not a supplemental textbook is needed, wait until after we have begun dissection.

An Atlas of Human Anatomy by Frank Netter (any edition, even the coloring book),  
Atlas of Anatomy by Anne M. Gilroy *et al.*,  
The Color Atlas of Human Anatomy by P. Kopf-Maier,  
Lippencott Williams & Wilkens Atlas of Anatomy by P.W. Tank & T.R. Gest,

**Course Objectives & Grading Policy:** The emphasis of this dissection course is to introduce students to concepts and techniques which cannot be learned by reading textbooks or reviewing additional materials. The majority of the information gained pertains to tactile properties of human structures and dissection technique/experience. Therefore, the course grading scale is largely dependent upon attendance and in-class participation. This fall there are no Friday conflicts other than our November break, over which we will not meet. Therefore, there will be slightly more flexibility in completing the necessary dissection shift-work to attain full marks...on the other hand, there will be fewer opportunities to make up missed dissection classes! The “final period” is scheduled 12/18 @ 10:15am.

Here is the point scale for your grade:

|                |                |                |                          |
|----------------|----------------|----------------|--------------------------|
| A = 25 points  | A- = 24 points | B+ = 23 points | B = 22 points            |
| B- = 21 points | C+ = 20 points | C = 19 points  | F = fewer than 19 points |

OK, so here’s how you earn points. **Each hour of dissection will earn you 1 point.** Yes, if you complete a 1 hour shift one week and a 3 hour shift the following week, you will earn 4 points. If you do the math, you’ll notice that attending and participating in all classes will be *more than* enough to earn an A! In addition to attendance & in-class participation, you may also earn points as indicated on the next page, but **ONLY to a maximum of 2 points!**

**Pre-arranged absences for academic, medical, and professional purposes**, such as research presentations, medical seminar, or graduate school interviews, **are considered half accepted in place of in-class dissection** (assuming you normally complete 2-hour shift work). That is, a write-up for a pre-arranged absence could earn you as much as 1 point. There are other examples of acceptable pre-arranged absences, so it does not hurt to ask if the reason for your planned absence warrants points (the worst I can say is no). To earn your equivalent **1 point, I would like a short, 1½-to-2 page summary (double-spaced) of your excursion**, typed and emailed to me within one week of your absence. Part of the purpose of this course is also to serve as an aide to your prerequisite course, BIO 387. Opportunities *may* arise to assist with BIO 387 to earn make-up points. I will keep you posted over the semester as opportunities may become available.

**Alternate 1 point assignments include lab notebook entries and lab quizzes.** No, please don't freak out! Due to the very high demand and enrollment of this course, there may be some "downtime" during your dissection period now and then. It quite simply comes down to how much space there is around each tank and what is to be dissected. If we are assessing organs within the thoracic and abdominal cavities, the space around the tank shortens significantly.

Therefore, an activity which can be conducted in alternating fashion is to maintain a lab notebook with dissection drawings / recordings. Each class I will give some suggestions as to what structures you can sketch out to analyze positional relationships. No, you do not have to be an artist to keep a good lab manual! Cartoons, line schematics, even a hand-written log describing relationships will do. What I am particularly interested in is your notes and interpretations of structural relationships, tensile / textural qualities, your description of how the structure was dissected, and how you found the structures compared relative to an available atlas. If you feel that a particular entry is well-written, detailed, clearly labelled, etceteras, **I will consider a lab manual entry for 1 point.** You can always ask for me to look over an entry to see if you have sufficient detail for the points before submitting.

Along with suggestions of structures to draw, I will also have a 10-item quiz to draw for brave individuals. I will NOT take away points for incorrect answers! **If you take the 10-item quiz, and correctly identify all 10 structures** (you will be allowed 3 "life-lines"), **you will earn 1 point.** However, I might not be able to accommodate all quiz requests on a given day. In other words, if everyone is short points and wants to take the quiz on the last day of class, most students will be out of luck! (Dice are in the lab for settling priority disputes.)

**Preparing for Lab Sessions:** Dissection of the human body is greasy, messy, and dirty. **You should wear clothes that you do not need to worry about staining.** Tie back long hair, and do not wear dangling or loose sleeves. You can wear a lab coat and keep it in the lab during the semester, but they may not always prevent stains to your clothes. Do not wear shorts or skirts that end above the knee, unless you also have a lab coat which will go past your knees. **You MUST wear closed toe shoes!** They should also be sturdy shoes...ask yourself, if I drop a scalpel, will it be stopped by my shoe? Nitrile or latex lab gloves will be provided for you. The cadaver is not considered especially hazardous at this stage, therefore safety glasses or goggles are recommended, but not required. Disposable splash, face shields will be available. Splash retardant (but not splash resistant) gowns may also be provided. Days in which the bone saw is in use will minimally require the use of a surgical mask (again, to be provided in class).

**Tentative List of Dissection Activities:** I do mean tentative, as this schedule is dependent upon what we find in given donors. Different activities are listed as options as well, but time permitting we may only select one option per week per cadaver, or possibly less than that.

### **Cadaver 1 (new)**

- Week 1: Identify surface anatomy landmarks  
Start removing skin (posterior limbs / trunk)
- Week 2: Continue removing skin (ant. limbs / trunk)  
Edge along superficial veins/nerves
- Week 3: Continue to edge along superficial veins/nerves  
Define superficial muscles where accessible

### **BIO 387 exam review (show off what you've learned to BIO 387 students)**

- Week 4: Remove skin along head & neck
- Week 5: Prep muscles for chest plate removal

### **Suturing demonstration or outside talk**

- Week 6: Define neck major arteries / veins / nerves  
Define chest plate muscles & membranes  
Remove chest plate

- Week 7: (Nothing this week)

### **BIO 387 exam review (show off what you've learned to BIO 387 students)**

- Week 8: Begin edging along superficial muscles

- Week 9: Remove brain? (attendance pending)  
Define structures to mark half-way ref. point

### **Post-Turkey Day! (no class)**

- Week 10: Remove brain? (attendance pending)
- Week 11: Define structures to mark half-way ref. point  
(continued as needed)

### **BIO 387 exam review (show off what you've learned to BIO 387 students)**

- Week 12 / 18: **Last Chance for Lab Make-ups / Lab Notebook Submissions / Quiz Challenges**

### **Cadaver 2 (halfway dissected)**

- Examine visible structures (reference point)  
Define Rt. superficial / Lf. deep muscles (or vice versa)  
Define ligaments along knee and open joint  
Remove clavicle & define brachial plexus and deep arteries  
Prosect gluteal muscles to expose deep nerves / arteries  
Prosect hamstring muscles to expose deep nerves / arteries  
Other (to-be-determined based on interests)
- Remove heart, lungs, & liver  
Define coronary vasculature  
Define 1 bronchial tree  
Define muscles along head & neck
- Define thoracic / abdominal arteries / veins / nerves  
Continue to define coronary vasculature  
Continue to define 1 bronchial tree  
Remove as a set the abdominal esophagus to the sigmoid colon  
(with the spleen) AND the abdominal aorta / portal vein  
Dissect mandible for deep facial vasculature / nerves / muscles  
Dissect stomach, large intestine, small intestine  
Identify autonomic nerves & the phrenic nerves  
Bisect head and define nasal cavity
- Edge along major muscle groups for lower limb removal prep  
Edge along major muscle groups for laminectomy prep  
Begin orbital dissection
- Bisect pelvis  
Dissect urinary structures and genital structures  
Continue orbital dissection  
Other (to-be-determined based on interests)
- Laminectomy and examination of the spinal cord  
Section brain  
Dissect circle of Willis & meninges  
Other (to-be-determined based on interests)

***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 the Rights and Responsibilities document, is intended to help establish a positive living and learning environment. For more information go to: <http://www.uwsp.edu/stuaffairs/Pages/rightsandresponsibilities.aspx>. The Rights and Responsibilities document also includes the policies regarding academic misconduct, which can be found at: <http://www.uwsp.edu/stuaffairs/Documents/RightsRespons/SRR-2010/rightsChap14.pdf>.

In this class, academic misconduct would entail misrepresentation of absences, disrespect of the willed materials in class, or other ill misconduct directed toward other students and the instructor. Penalties will be discussed on a case-by-case basis, as individual assignments are not a part of this course. Please remember that specific topics in this class are of a sensitive nature. 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. As a final note, please be aware that capturing images of the materials in this class is not permitted, and redistributing images provided for academic use on the course website is prohibited.