

# 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  
BIO 387 exam set-up dates R 10/6, R 11/10, & T 12/20 @ 7:00pm

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Office hours: MW @ 1:00 p.m. & R @ 10:00 a.m.  
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**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 information gained is tactile properties of human structures and learning dissection technique. Therefore, the course grading scale is largely dependent upon attendance and in-class participation. This fall two Fridays correspond to BIO 387 exams and one Friday is after Thanksgiving (no classes). Therefore, there are 11 regularly scheduled dissection periods. The "final period" is scheduled on 12/20.

Here is the point scale for your grade:

A = 11 points

A- = 10½ points

B+ = 10 points

B = 9½ points

B- = 9 points

C+ = 8½ points

C = 8 points

F = fewer than 8 points

OK, so here's how you earn points. **Each 2-hour dissection shift completed 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 2 points. If you do the math, you'll notice that attending and participating in all classes will be enough to earn an A! But, attendance is not the only way to earn 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**. There are other examples, 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 ½ **point I would like a short, 1-page (double-spaced) summary of your excursion** typed and emailed to me within one week after your absence.

Part of the purpose of this course is also to serve as an aide to your prerequisite course, BIO 387. **Scheduled assistance outside of the regularly scheduled dissection period is worth a ½ point for each instance**. Examples include:

Exam setup @6pm the day before each test / final

Lab demonstrations during the week of the test (or the week before the final  
(Mondays @10am, Tuesdays @1pm, and Wednesdays @10am)

Proctoring a 2-hour period in the overflow room (times TBD)

**Alternate ½ 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 "down-time" 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 particularly entry is well-written, detailed, clearly labelled, etceteras, **I will consider a lab manual entry for a ½ 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 a ½ point**. However, I might only have 1 quiz on a given day, you cannot take back-to-back quizzes if another individual wishes to take the challenge, and individuals who have not yet attempted the challenge will get priority. Dice are in the lab for tie-breakers.

**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.

***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.

<b>Cadaver 1 (new)</b>	<b>Cadaver 2 (halfway dissected)</b>
Week 1: Identify surface anatomy landmarks Start removing skin (posterior limbs / trunk)	Examine visible structures (reference point) Define Rt. superficial / Lf. deep muscles
Week 2: Continue removing skin (ant. limbs / trunk) Edge along superficial veins/nerves	Define ligaments along knee and open joint Remove clavicle & define brachial plexus and deep arteries
Week 3: Continue to edge along superficial veins/nerves Define superficial muscles where accessible	Prosect gluteal muscles to expose deep nerves Prosect hamstring muscles to expose deep arteries
Week 4: Remove skin along head & neck	Wrap up bullet point dissection list for demonstrations
Week 5: <b>BIO 387 exam (no class)</b>	
Week 6: Continue removing skin along head & neck	Remove heart, lungs, & liver Define thoracic / abdominal arteries / veins / nerves
Week 7: Remove chest plate Define muscles along the head & neck	Define thoracic / abdominal arteries / veins / nerves Define coronary vasculature Define 1 bronchial tree
Week 8: Define chest plate muscles & membranes	Define thoracic / abdominal wall major arteries & veins Identify autonomic nerves & the phrenic nerves
Week 9: Define neck major arteries / veins / nerves	Dissect stomach, large intestine, small intestine
Week 10: <b>BIO 387 exam (no class)</b>	
Week 11: Dissect spermatic cord & male genitalia Remove brain? (attendance pending)	Bisect head and define nasal cavity Divide pelvis and dissect urinary and genital structures
Week 12: <b>Post-Turkey Day! (no class)</b>	
Week 13: Remove brain? (attendance pending)	Laminectomy and examination of spinal cord
Week 14: Dissect orbit or suture skin segments	Section brain
12 / 20: <b>Last Chance for Lab Make-ups / Lab Notebook Submissions / Quiz Challenges</b>	

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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.