

ANTR 485: Directed Study in Human Prosection

Course Information

Instructor and Staff Information

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Lab Attendant (LA) Information

The Prosection Laboratory Attendants (along with Mr. McMillan) will be working with you on a day-in day-out basis. The LAs will post their lab working schedules and their contact information on a Google document (the link will be provided to you). They will distinguish themselves from students enrolled in the course by wearing bluecoats and/or name tags. You are not limited to dissecting while they are in the lab; however, you may find their presence useful, especially as you begin your first assignments. Their primary purpose is to keep you from getting bogged down because of uncertainty and to keep you progressing with your work so that you do not become frustrated and thus delayed in moving onto new assignments.

Course Description

ANTR 485 is an independent study laboratory course that offers students an opportunity to deepen their understanding of human anatomy while gaining prosection/dissection experience. Students will independently complete prosections of select anatomical regions and/or isolated organs of human donors under the guidance of faculty from the Division of Human Anatomy. These prosections will later be used as anatomical teaching specimens in the Gross Anatomy Lab.

In an effort to facilitate meaningful questions and discussions with faculty and to ensure that anatomical objectives are properly isolated, students are expected to prepare for assigned projects by consulting anatomical atlases as needed prior to working on each of their assigned prosections. This ensures that students can ask faculty or Laboratory Attendants meaningful questions as they prosect and above all, ensures that the various anatomical structures listed in the protocol objectives are preserved. As is generally true in any of life's endeavors, **the more you put into this course, the more you will get out of it.**

Course Materials

Required Materials

- Participation in the gross anatomy lab **REQUIRES** the use of personal protection equipment (PPE):
 - Closed-toed shoes;
 - Scrubs (top and long pants, do not need to be specific color or style) (**purchase**);
 - Plastic gown (**provided to you**);
 - Safety glasses certified to ANSI Z87 (**purchase, although we have many in the lab that you can use if you do not want to purchase**). (NOTE: prescription eyeglasses are not considered safety glasses unless they have both side shields and shatter-resistant lenses);
 - Safety glasses are available at MSU Stores or can be obtained from an online vendor.
 - Disposable **nitrile*** gloves (**purchase**). (*NOTE: as some individuals are allergic to latex, latex gloves are NOT allowed in the lab).

Recommended Materials

- **An Anatomy Atlas**
 - We recommend Gilroy Atlas of Anatomy. You can utilize this anatomy atlas, and many others, **FREE** through MSU's library: <http://libguides.lib.msu.edu/medicalebooks>
 - See additional list of online resources posted on D2L.

Lockers

While enrolled in the course, every prosector is entitled to a locker. During your one-on-one with an LA, you will be assigned a locker. You will also be given a combination lock to use for the duration of the semester.

Course Schedule

Orientation

During the first week of the semester, Dr. Geske will conduct a scheduled orientation session. The date and time will be posted on D2L. This orientation is **REQUIRED** and will cover the rules of the gross anatomy lab and introduce you to the space and LAs.

Important Due Dates

A list of important due dates for ANTR 485 will be posted on D2L and in the prosection lab. These dates mark the due dates for completing your mid-way check-in for your first project, for LA and faculty checkouts for your first and last projects, the last date to receive a donor or bucket assignment, and your summary statement.

Faculty Availability in Lab

Faculty will visit the prosection lab at various frequencies and some faculty will post weekly hours in which they will be in the lab. You may also email faculty members with questions or request a meeting to discuss your project during the dissection.

Course Requirements

Attendance

ANTR 485 is a two-credit course. Students should expect to spend **at least 6 hours** in the lab per week, with a recommendation of 8-10 hours per week to fulfill the course requirements. Students may prosect during any hours that the lab is open. A link for the open lab schedule will be posted on D2L and at the doors to the lab. Please note there is a rather precarious balance in this course between prosection speed and learning. Slow dissection facilitates learning, while some measure of speed permits additional and more varied assignments and an increase in exposure. Assignments are given with an estimated length of time required to complete that prosection – the number of weeks necessary to finish correlates to the point value of the assignment. **Prosection can be a tedious, slow, and frustrating process at times that requires attention to detail and planning.**

Your time spent in the prosection lab will be monitored. It is expected that you meet a **minimum of 6 hours per week**. Not meeting this requirement in addition to not finishing your assigned projects and/or rushing through your projects at the end of the semester will result in a **loss of two (2) points**.

Please let Dr. Geske know if you are sick and are not able to come into the prosection lab. As you set your own hours in this course, documentation is not required for “missing” prosection times. However, if illness impacts your ability to make progress in this course, it is encouraged that you provide Dr. Geske documentation for records and that you reach out to your advisor and the College Student Affairs office. If you are exposed/become ill with COVID-19 (or live with/care for someone who is exposed/becomes ill), please follow the CDC guidelines for self-isolating/staying home. Please notify your college for grief absences or extended absences such as hospitalizations.

One-on-One with LA

Prior to beginning your first prosection, you will need to schedule an appointment for a one-on-one meeting with a Laboratory Assistant (LA) (a Google Doc sign-up link will be posted on D2L). This is an opportunity for the LA to help you become acquainted with the prosection (PX) lab, your project, and your responsibilities, and to answer any questions. They will also share tips or suggestions from their own experience and will help you begin your first assignment. **You will begin your project during this meeting, so you must come in appropriate PPE.**

This meeting is a course requirement. The due date for when this should be completed will be listed in the Important Due Dates document on D2L. **DO NOT begin your assignment without meeting with an LA or if you are uncomfortable or unsure.** Ask for help early and avoid frustration later.

Prosection Projects

Students must complete a series of prosection projects that total **80 points** in assignment value. **Initial assignments in ANTR 485 will typically be worth 20 or 30 points.** Students can earn up to 80 by completing projects that have varying point values. For example, some students may begin with a 20-point project, then do a 50-point project, and finish with a 10-point project to earn up to 80 points. Other students may begin with a 30-point project and then do a 50-point project to earn up to 80 points. Other combinations of assignments are also possible, such as one 20-point project and two 30-point projects, etc.

Prosection projects have a designated point value based on the difficulty of the project and the length of time required for completion. The types of available projects are categorized by difficulty level (points) in the table below. Project assignments will be determined by the lead faculty member and will be based on several factors, including project availability, student interest, and the student's level of prosection and/or dissection experience.

Level 1 (DP = 1) Score = 10 Points Complete within 2 weeks	Level 2 (DP = 2) Score = 20 Points Complete within 3 weeks	Level 3 (DP = 3) Score = 30 Points Complete within 5 weeks	Level 4 (DP = 4) Score = 40 Points Complete within 7 weeks	Level 5 (DP = 5) Score = 50 Points Complete within 9 weeks
	<ul style="list-style-type: none"> - Ant Sup Thorax - Ant Sup Abdomen 	<ul style="list-style-type: none"> - Ant UL Muscular - Ant LL - Ant Int Thorax 	<ul style="list-style-type: none"> - Ant Deep Thorax - Ant Deep Abdomen 	<ul style="list-style-type: none"> - Ant Sup Head - Ant Int Head - Ant Deep Head - Ant UL Neurovasculature - Ant Int Abdomen
		<ul style="list-style-type: none"> - Post LL (Left Limb) - Post UL 	<ul style="list-style-type: none"> - Post LL (Right Limb) - Post Int Back 	<ul style="list-style-type: none"> - Post Laminectomy
<ul style="list-style-type: none"> - Hemi Hip Ligaments - Heart - Hand Neurovasculature - Foot Neurovasculature <p>5 points:</p> <ul style="list-style-type: none"> - Shoulder - Elbow Ligaments - Knee Ligaments - Foot Ligaments - Abdominal Viscera 	<ul style="list-style-type: none"> - Orbit (Both Sides) - Vertebral (Ligament) - Whole Hip Ligaments - Ant Hemi Pelvic Neurovasculature 	<ul style="list-style-type: none"> - Whole Pelvic Floor and Perineum 		
<p>- Pelvic bucket specimens are automatically 10 pts, plus another 10 pts for each protocol listed. Total possible pts = 30.</p> <p>- Abbreviations: DPs = Difficulty Points.</p> <p>Ant = anterior; Post = posterior; Sup = superficial; Int = intermediate; UL = upper limb; LL = lower limb.</p>				

You may find it helpful to closely examine any of the finished dissections on the main lab teaching floor at any time. If you have a question, ask an LA for help finding a donor with your assignment. Designation codes may not be intuitive.

PLEASE NOTE: Your assignment is unique! Do NOT judge your progress based on what others are doing. Each dissector has a different body/body region with different anatomical variation and each dissector generally has a different dissection assignment with different levels of difficulty. Furthermore, different students have different levels of motivation, manual dexterity, and experience. Thus, two students taking the dissection course for the same number of credit hours may end up completing different numbers of dissections, yet still receive the same final course grade.

IF YOU START A PROJECT BEYOND THAT EXPECTED IN THE COURSE, YOU MUST FINISH IT.

Midway Check-Ins

You will need to complete a midway check-in with either Dr. Geske or Bill around the halfway point of your first project. The due date for when this should be completed will be listed in the Important Due Dates document on D2L.

This check-in will evaluate that you are at least 30% complete with your first project and will ask you to identify the structures you have uncovered so far and describe the next steps in your project. It will also allow you to ask questions of Dr. Geske or Bill. The midway check-in only needs to be completed for your first project.

This meeting is a course requirement. Failure to complete a midway check-in will result in a **loss of two (2) points**. Failure to be at least 30% complete with your project during your midway check-in will result in a **loss of one (1) point**.

Dissection Project Checkouts

Upon completion of a dissection project, students are required to complete a project checkout. The project checkout will consist of the student orally presenting their project to a faculty member.

When your dissection assignment is completed:

1. Make arrangements to have a dissection Laboratory Attendant (LA) look over the dissection and confirm that ALL objectives are visible. You can find which LAs can checkout your project in the LA Completed Projects Google doc (link posted on D2L).
 - a. You will do a "practice" checkout with the LA so that they can ensure that you are ready for your faculty checkout and give you feedback.
2. **Complete any suggestions** offered by the LA (e.g., additional clean-up, etc.).
3. **Once the LA clears you**, then email the appropriate faculty member for FINAL check-out. (Please provide several dates and times that you are available to meet).
4. **If your designated faculty member is unavailable**, you may also email the other faculty members and request for help to check out.

Students should address the following during their project checkout:

- Identify the required structures listed in the protocol.
- Answer the learning objectives listed in the protocol.
- Discuss structure-function, where applicable
- Discuss pathology and/or structural variation, where applicable.

Projects will be evaluated according to the following criteria:

- Time on task (5%). Deductions will be made for projects that are overdue or do not meet the minimum hours spent in lab per week.
- Oral Presentation at checkout (40%). Deductions will be made for misidentified structures or incorrect learning objectives.
- Required objectives exposed (40%). Deductions will be made for missing or damaged objectives.
- Quality of prosection (15%). Deductions will be made for donors or projects that need additional cleaning or have been dried out or damaged.
- Professionalism (variable %). Deductions will be made for unprofessional behavior (see Professional section below).

Experience Summary Statement

After finishing your prosections for the semester, please complete a 1- to 2-page summary of your thoughts about the course. You may reflect upon any or all of the following questions, or you may wish to explore your own ideas: how did you feel upon beginning the course as opposed to finishing the course, why did you choose the project(s) that you selected, has the course influenced your career plans, what did you like or dislike about the course, how has this experience changed your overall understanding of human anatomy? The summary should be typed, with 1.5 spacing, size 12 font, saved as a Word document or PDF, and submitted through D2L. **This summary is worth five (5) points and is a course requirement.**

Grading Policy

Graded Course Activities

The final grade in ANTR 485 is based on the number of points earned from prosection assignments and a summary essay. Due dates for each assignment are listed in the "Important Due Dates" document posted on D2L and posted in the prosection lab.

Description	Total Points	Percent of Grade
Prosections (<i>each project is variable points, for a total of 80 points</i>)*	80	94%
Experience Summary Statement	5	6%
Total Points Possible	85	100%

***It is not possible to receive partial credit for an incomplete prosection.**

Grade Assignment

Grade	Approximate Percentage	Points Required	Number of Points Missed
4.0	93-100%	79-85 points	0-6 points
3.5	87-92%	74-78.5 points	6.5-11 points
3.0	81-86%	69-73.5 points	11.5-16 points
2.5	75-80%	64-68.5 points	16.5-21 points
2.0	69-74%	59-63.5 points	21.5-26 points
1.5	63-68%	54-58.5 points	26.5-31 points
1.0	57-62%	48-53.5 points	31.5-37 points
0.0	Below 57%	47.5 points or less or a violation of anatomy lab rules	Over 37.5 points

Course Policies

Professionalism

You will be given an introduction and a list of rules that apply to the Gross Anatomy Lab (GAL) during the prosection orientation. You may bring “smart” devices (cell phones, tablets, or laptops) into the lab for anatomy use (i.e., viewing anatomy resources), but you are **not allowed to take phone calls or photos in the lab or classroom**. Please make sure these devices have appropriate covers, such as placing plastic wrap over them or putting them in Ziploc baggies to protect them.

You are expected to follow ALL of the rules that govern the GAL and any failure to do so will result in appropriate disciplinary measures, potentially including your removal from the course.

Attendance of the GAL is restricted to only enrolled students or teaching staff. The Department of Radiology strictly adheres to the University policy regarding who may attend either the lectures or the laboratories during regularly scheduled sessions. Thus, all attendees must either be enrolled in the course or members of the teaching faculty assigned to the course.

THERE IS NO FOOD OR DRINKS ALLOWED IN THE ANATOMY AND PROSECTION LAB.

Acts of unprofessionalism directed towards the donors, faculty, staff, or other students may lead to failure of the course. Less severe acts may result in your overall grade being dropped one value (meaning that if you had a 4.0 your grade could be dropped to a 3.5). Examples of this include careless dissection without proper preparation, removal of the orange wristband from the donor, or allowing donors to dry out (this includes your project as well as neighboring projects if you fail to cover their regions while working). **A student will receive a 0.0 if they:**

- Bring an unauthorized visitor into the Gross Anatomy Lab. The visitor will be asked to leave immediately.

- Photograph or video cadaveric material.
- Do not perform the prosections and do not drop the course.

Accidents

Minor Cuts, Splashes, and/or Falls

Take care of the cut first and then clean up (mop and put up a “WET FLOOR” sign), and then **Fill out an INJURY/PROPERTY DAMAGE REPORT** (see below).

Eye Splashes

Immediately use the eye-wash fountains in the lab to thoroughly rinse out your eyes.

First Aid Kit

Located on the south side of the gross anatomy lab.

Injuries that Require Medical Attention

These injuries need to be addressed immediately in the lab if possible (e.g., wash the wound, stop any bleeding, bandage, and, if necessary, call 911). During working hours (M-F 8am-6pm; Sat 10am-1pm) go to Olin Health Center (note summer and break hours are M-F 8am-5pm). After hours (or when Olin Health Center is closed or inaccessible) go to the Sparrow Hospital-Lansing located at 1215 East Michigan Avenue, Lansing (517) 364-4149. Or go to the nearest Urgent Care Facility.

Injury/Property Damage Report

These forms are available in the lab monitor desk located in the lab near the classroom door. This report should be filled out and taken with the injured individual to a medical center. If the injured individual is unable to fill out the form, he/she may file the report with a prosection faculty member after seeking treatment.

When You May Drop This Course

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. It is the student's responsibility to understand when they need to consider un-enrolling from a course. Refer to the [Michigan State University Office of the Registrar](#) for important dates.

If it becomes apparent that this course does not meet your expectations, if you have difficulty meeting the time commitments, or if a personal emergency arises, **please notify Dr. Geske as soon as possible that you will be dropping the course.**

Grief Absence Policy

Michigan State University is committed to ensuring that the bereavement process of a student who loses a family member during the semester does not put the student at an academic disadvantage in their classes. If you require a grief absence, you must notify your Associate Dean via the “Grief Absence Request” web form before you leave campus. Your

Associate Dean will notify me, and I will work with you to make appropriate accommodations so that you are not penalized due to a verified grief absence. The link to the form can be found at <https://www.msu.edu/unit/ombud/classroom-policies/index.html#GriefAbsencePolicy>.

Incomplete Policy

The incomplete (I) grade will be granted in cases of extenuating and documentable circumstances such as protracted personal illness or family emergency. The university requires students to have completed 6/7ths of a course to be eligible for an incomplete. **You must complete at least 2 projects to be eligible for an Incomplete.** Note that the MSU registrar will automatically change an incomplete (I) grade into a 0.0 unless you complete your prosecution by the middle of the next semester you enroll for courses at MSU.

Academic Honesty

You are expected to complete all prosecutions yourself. You may ask for assistance from LAs and faculty; however, the prosecution must be the result of your work. **Students who violate MSU academic integrity rules may receive a penalty grade, including a failing grade on the assignment or in the course.**

Mandatory Reporting

Michigan State University is committed to fostering a culture of caring and respect that is free of relationship violence and sexual misconduct, and to ensuring that all affected individuals have access to services. For information on reporting options, confidential advocacy, and support resources, university policies and procedures, or how to make a difference on campus, visit the Title IX website at titleix.msu.edu.

Limits to confidentiality. Essays, journals, and other materials submitted for this class are generally considered confidential pursuant to the University's student record policies. However, students should be aware that University employees, including instructors, may not be able to maintain confidentiality when it conflicts with their responsibility to report certain issues to protect the health and safety of MSU community members and others. As the instructor, I must report the following information to other University offices (including the Department of Police and Public Safety) if you share it with me:

- Suspected child abuse/neglect, even if this maltreatment happened when you were a child;
- Allegations of sexual assault, relationship violence, stalking, or sexual harassment; and
- Credible threats of harm to oneself or to others.

These reports may trigger contact from a campus official who will want to talk with you about the incident that you have shared. In almost all cases, it will be your decision whether you wish to speak with that individual. If you would like to talk about these events in a more

confidential setting, you are encouraged to make an appointment with the MSU Counseling and Psychiatric Services.

Letters of Recommendation

If you want a letter of recommendation from a faculty member or Bill, please ask after the end of the semester. We will only agree to a letter of recommendation if we can write you a strong letter. We must easily be able to recognize your name and have had multiple interactions with you.