

ANTR 685: Directed Study in Clinical Prosection Elective Clerkship Rotation

Division of Human Anatomy, Department of Radiology
Michigan State University College of Osteopathic Medicine

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Course Description

ANTR 685 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.

ANTR 685 is a variable credit course with a current offering of a 2-week (3 credits) or 4-week (6 credits) rotation. A student may earn a maximum of 15 credits in all enrollments for this course. In the 4-week rotation, each student will be expected to present a 30-minute oral seminar-style discussion to the public (faculty, lab personnel, and undergraduate and medical students) at the completion of the prosection assignment. The seminar topic should be related to the anatomical region being prosected and is expected to draw information from at least two peer-reviewed journal articles covering recent innovative treatments encompassing clinical anatomy correlates/surgical techniques, or diagnostic imaging advances, or genetic/cell therapies, etc.

Course Objectives

ANTR 685 is an elective clerkship rotation where students will:

- Learn appropriate dissection techniques for prosection of various tissues.
- Learn appropriate use of dissection tools; most dissection techniques are translatable to surgical techniques.
- Work independently to complete the assigned prosection project.
- Communicate with division of human anatomy faculty and staff in a professional setting.
- Search for peer-reviewed publications related to their anatomical region of interest and identify studies of interest, such as recent advances in surgical techniques, diagnostic imaging, gene therapies, morphological variation, etc.
- Prepare and deliver an oral seminar-style presentation integrating their prosection assignment with the peer-reviewed publications of their choosing.

Required Course Materials

Personal Protective Equipment (PPE)

Students are required to wear appropriate PPE while working in the prosection lab, including:

- White lab coat.
- Closed-toe shoes.
- Long pants or skirt.
- Safety glasses.

Nitrile Gloves

Students are required to provide their own disposable nitrile gloves for prosection. Latex gloves are not permitted.

Course Academic Requirements

Attendance

Students are expected to spend 30-40 hours per week in the prosection lab. Students may prosect during any hours that the lab is open. A campus-specific schedule will be provided to the student.

Prosection Project

Students must complete a series of prosection projects that total **50 points (for a 4-week rotation)** or **30 points (for a 2-week rotation)** in assignment value. 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 (T = 1 -2 weeks)	Level 2 (DP = 2) Score = 20 Points (T = 2 -3 weeks)	Level 3 (DP = 3) Score = 30 Points (T = 3 - 4 weeks)	Level 4 (DP = 4) Score = 40 Points (T = 4 -5 weeks)	Level 5 (DP = 5) Score = 50 Points (T = 5 -6 weeks)
	Ant Sup Thorax Ant Sup Abdomen	Ant UL (muscular) Ant LL ANT Int Thorax	ANT Deep Thorax Ant Deep Abdomen	Ant Sup Head Ant Int Head Ant Deep Head Ant UL (Brachial plexus) Ant Int Abdomen
		Post UL Post LL Post Sup Back	Post Int Back	Post Laminectomy Back Post Deep Neck
1 Ant whole Pelvis*, (ligaments) 1 Post whole Pelvis*, (ligaments) 1 Heart 2 of the following: - Abdominal Viscera - Palmar Hand - Dorsal Hand - Plantar Foot - Dorsal Foot - Shoulder - Elbow Lig - Knee Lig - Foot Lig	2 Superior Orbits Vertebral (Ligament) Ant Half Pelvis* (Neurovasculature)	Pelvis*, Whole (Diaphragm with viscera) Pelvis*		
<p>-* Pelvic bucket specimens are automatically 10 pts, plus another 10 pts for each protocol listed. Total possible pts = 30 -Abbreviations: DPs = Difficulty Points; T= Expected time for finishing prosection. Ant = anterior; Post = Posterior; Sup = superficial; Int = intermediate; UL = upper limb; LL = lower limb.</p>				

Prosection Project Checkout

Upon completion of the prosection 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.

Students should address the following during their project checkout:

- Identify required structures.
- 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%).
- Oral Presentation at checkout (40%).
- Required objectives exposed (40%).
- Quality of prosection (15%).

Peer-Reviewed Journal Article Annotations (x2) (4-week rotation only)

Students will choose and annotate two peer-reviewed journal articles related to the anatomical region being prosected.

The articles should fit the following criteria:

- One landmark article that addresses how pathologies of the anatomical region have been historically treated (e.g., surgery, diagnostic testing, pharmaceuticals, etc.).
- One innovated article that addresses a recent innovation in the treatment of a condition related to the anatomical region being prosected (e.g., new surgical technique, therapeutic intervention, advancements in imaging, etc.)

Seminar-Style Presentation (4-week rotation only)

Students will give a 30-minute oral seminar-style presentation to the public (faculty, lab personnel, and students). The seminar topic should be related to the anatomical region being prosected and draw information from the two peer-reviewed journal articles annotated by the student.

Presentation should include:

- Overview of anatomical region.
- Introduction to seminar topic.
- Discussion of two peer-reviewed journal articles.
- Discussion of impact on the field.

Course Evaluation

Faculty require feedback for ongoing program improvement as well as for their own professional development. Students are asked to complete the ANTR 685 Course Evaluation via the online Student Instructor Rating System (SIRS).

Course Grade

Students can earn the following course grades:

P = Pass: A grade of “P” means that credit is granted and that the student achieved a level of performance judged to be satisfactory.

To earn a passing grade of “P”, the student must:

- Complete prosection assignment(s) with high quality accuracy.
- Annotate and summarize two peer-reviewed journal articles.
- Lead seminar-style presentation.

N = No Grade: A grade of “N” means that no credit is granted and that the student did not achieve a level of performance judged to be satisfactory.

ET = Extended Time: A grade of “ET” means that a final grade (“P” or “N”) cannot be determined due to one or more missing course requirements. In Years 3 and 4, the ET grade is used instead of an “Incomplete (I)” grade. Once all course requirements have been completed, received, and processed, the ET grade will be changed to a final grade. An ET will NOT remain on a student’s transcript.

Student Responsibilities

Professional & Ethical Behavior

Professional and ethical behavior is always expected during the course. This expectation includes, but is not limited to:

- Careful dissection of the donor material.
- Respect for donors in the lab and outside of lab.
- ABSOLUTELY NO PHOTOGRAPHY/VIDEO of donors or donor tissue specimens.
- ABSOLUTELY NO VISITORS OR UNAUTHORIZED PERSONS IN THE LAB.

Spartan Code of Honor: Academic Pledge

Michigan State University affirms the principle that all individuals associated with the academic community have a responsibility for establishing, maintaining, and fostering an understanding and appreciation for academic integrity. Academic integrity is the foundation for university success. Learning how to express original ideas, cite works, work independently, and report results accurately and honestly are skills that carry students beyond their academic career.

The Spartan Code of Honor Academic Pledge embodies the principles of academic integrity through a personal commitment to ethical behavior in a student’s studies and research. All undergraduate students are expected to uphold the academic pledge throughout their enrollment at MSU. Student conduct that is inconsistent with the academic pledge is addressed through existing policies, regulations, and ordinances governing academic honesty and integrity.

More information on policies included within the Academic Pledge can be found at <http://splife.studentlife.msu.edu/spartan-code-of-honor-academic-pledge>

Accommodations for Students with Disabilities

From the Resource Center for Persons with Disabilities (RCPD):

Michigan State University is committed to providing equal opportunity for participation in all programs, services and activities. Requests for accommodations by persons with disabilities may be made by contacting the Resource Center for Persons with Disabilities at 517-884-RCPD or on the web at rcpd.msu.edu. Once your eligibility for an accommodation has been determined, you will be issued a Verified Individual Services Accommodation ("VISA") form. Please present this form to me at the start of the term and/or two weeks prior to the accommodation date (test, project, etc.). Requests received after this date may not be honored.

Observance of Religious Holy Days

In accordance with University policy, course faculty strive to allow students to participate in religious observations without effect on their course performance whenever possible. Students who wish to be absent to allow for religious observation need to be in touch with course faculty at the earliest opportunity to allow consideration of alternative experiences or activities depending on the timing of the religious observation.

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 <https://civilrights.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.