

ANTR 355: Human Gross Anatomy Laboratory

Spring 2024

Gross Anatomy Laboratory: E220 (Lab) & E221 (Classroom) Fee Hall

Section 1: Mondays and Wednesdays: 11:00am – 12:20pm

Section 2: Mondays and Wednesdays: 9:20am – 10:40am

Course Information

Instructor Information

Course Director and Instructor: Dr. Nicole Geske

E-mail: geskenic@msu.edu (preferred contact method)

Office Hours: [by appointment](#).

Please contact Dr. Geske for all course administration issues

Instructor: Dr. Libby Bradley

E-mail: bradl437@msu.edu (preferred contact method)

Office Hours: [by appointment](#).

Instructor: Bill McMillan

E-mail: mcmill11@msu.edu

Course Description

Introductory, structured laboratory survey of human regional gross anatomy using prosections, medical imaging, and multimedia for students in allied medical fields. The objectives of this course are for you to understand and correctly use anatomical terminology and develop a foundational knowledge of “normal” human anatomy using prosected cadaveric material and online learning activities.

Course Materials

Required Materials

- Internet-compatible device (phone, tablet, laptop) that can access **Top Hat** during the class session. Top Hat is available as a webpage and as an app.
 - Top Hat course name: **ANTR 355 Spring 2024**
 - Top Hat join code: **066397**
- Participation in the gross anatomy lab **REQUIRES** the use of personal protection equipment (PPE):
 - **Nitrile gloves (purchase)**. These can be purchased online or at most pharmacies/box stores.
 - **Protective eyewear (purchase)**. Prescription eyeglasses are not considered

protective eyewear. These must have both side shields and shatter-resistant lenses. Most eyewear used for other laboratory courses (such as chemistry) is compatible.

- **Closed-toed shoes and ankle-length pants/skirt.**
- A **lab coat** and your **ANTR 355 nametag (both provided to you).**

Recommended Materials (FREE):

- **An Anatomy Atlas**, which can be accessed through the **MSU Online Library Resources**: These resources can be accessed in the MSU Library Medical E-books Collection using the following link: <https://libguides.lib.msu.edu/anatomy-resources>.
- **The BioDigital Human**: 3D interactive BioDigital models will be embedded in Top Hat activities. You may also access a basic (free) version of human anatomy using your MSU account: <https://www.biodigital.com/>

Course Requirements

- Internet-compatible device with access to Desire 2 Learn (D2L) and Top Hat.

Course Structure

The materials for this course will be delivered online through the course management system Desire 2 Learn (D2L) and Top Hat. Top Hat will be used for all course materials. D2L will be utilized for grades.

Technical Assistance

If you need technical assistance at any time during the course or to report a problem:

- **D2L**: Call the help desk (517-432-6200 or 844-678-6200) and report the incident and ask that a copy of the “trouble ticket” be emailed to Dr. Geske.
- **Top Hat**: Contact their support team by email (support@tophat.com), through the app directly, or by phone (1-888-663-5491).

Course Schedule

Refer to the course schedule below for specific lab topics and due dates for pre-lab assignments and extra credit. **Pre-Lab Assignments and Optional Extra Credit Assignments are located on Top Hat and are due at 11:59pm the day prior to the associated lab.**

Week	Date	Topics
1	Jan 8	Orientation <i>Pre-Lab Assignment: Orientation</i>
	Jan 10	Introduction to Anatomy & Axial Muscles <i>Pre-Lab Assignment: Anatomical Movements & Axial Muscles</i>
2	Jan 15	NO CLASS: MLK Day
	Jan 17	Axial Skeleton <i>Pre-Lab Assignment: Introduction to Skeletal System & Axial Skeleton</i>
3	Jan 22	The Spine & Spinal Cord <i>Pre-Lab Assignment: Spinal Cord</i>
	Jan 24	Exam 1 Review Day & Practice Exam <i>Preparation for Class: Re-read Lab Exam Procedures</i>
4	Jan 29	NO CLASS
	Jan 31	EXAM 1 <i>Optional Extra Credit Assignment: Radiology of the Back</i>
5	Feb 5	Upper Limb <i>Pre-Lab Assignment: Upper Limb</i>
	Feb 7	Lower Limb <i>Pre-Lab Assignment Lower Limb</i>
6	Feb 12	Somatic Peripheral Nerves <i>Pre-Lab Assignment: Somatic Peripheral Nerves</i>
	Feb 14	Exam 2 Review Day
7	Feb 19	EXAM 2 <i>Optional Extra Credit Assignments: Upper Limb Radiology, Lower Limb Radiology</i>
	Feb 21	Cranial Nerves, Eye and Ear <i>Pre-Lab Assignment: Cranial Nerves, Eye and Ear</i>

Week	Date	Topics
SPRING BREAK		
8	Mar 4	Brain <i>Pre-Lab Assignment: Brain</i>
	Mar 6	Autonomic Nervous System <i>Pre-Lab Assignment: Autonomic Nervous System</i>
9	Mar 11	Exam 3 Review Day
	Mar 13	EXAM 3 <i>Optional Extra Credit Assignment: Brain Radiology</i>
10	Mar 18	Heart and Mediastinum <i>Pre-Lab Assignment: Heart and Mediastinum</i>
	Mar 20	Vessels <i>Pre-Lab Assignment: Vessels</i>
11	Mar 25	Respiratory System <i>Pre-Lab Assignment: Respiratory System</i>
	Mar 27	Exam 4 Review Day
12	Apr 1	EXAM 4 <i>Optional Extra Credit Assignment: Basics of Chest Films</i>
	Apr 3	Digestive System <i>Pre-Lab Assignment: Digestive System</i>
13	Apr 8	Perineum and Urinary System <i>Pre-Lab Assignment: Perineum and Urinary System</i>
	Apr 10	Reproductive System <i>Pre-Lab Assignment: Reproductive System</i>
14	Apr 15	Exam 5 Review Day
	Apr 17	EXAM 5 <i>Optional Extra Credit Assignment: Abdomen Radiology</i>

Grading Policy

Graded Course Activities

Description	Total Points	Percent of Grade
Laboratory Practical Exams (5 exams, 40 points each) <ul style="list-style-type: none"> - Individual portion of each exam = 32 points - Group portion of each exam = 8 points 	200	58.14%
Pre-Lab Assignments (16, 4 points each, can earn up to 60 points)	60	17.44%
Post-Lab Quizzes (15, 6 points each, can earn up to 84 points)	84	24.42%
Radiology Extra Credit (up to 6 points total)	(+6)	--
Total Points Possible	344	100%

It is recommended that you schedule blocks of time each week to 1) complete the assigned pre-lab assignments and 2) spend time reviewing material in the anatomy lab.

Laboratory Practical Exams

A total of five (5) laboratory summative examinations will be given: one to follow each unit. These exams will be conducted in the gross anatomy laboratory using donors, anatomical material, models, bones, and imaging and will cover laboratory objectives listed within the provided laboratory guides.

You must take all five exams to receive a grade in the course. All exams will be hand-graded within five business days of the exam date. Your score will be posted to D2L, and you will be able to look through your exam during the next class period.

For exams, you are required to bring some form of **photo identification** (student ID, driver's license, passport, etc.) to the exam. This follows professional and medical school policies. If you do not have a valid photo identification for exam check-in, you will be deducted two (2) points on that exam.

During exams, you are required to wear lab exam attire, consisting of including **long pants, closed-toed shoes, and a lab coat with nametag**, but you do not need to wear goggles or gloves. If you do not have appropriate lab exam attire, you will not be able to take the exam and will receive a zero (0) for that exam. Please see the **ANTR 355 Lab Exam Procedures** document on Top Hat for more information about laboratory exams (which will be posted before the first exam).

Each lab practical exam will consist of thirty-two (32) questions. You will rotate around the lab with each question set up as a station. You will have one minute per station. After you have completed the exam, you will retake the same exam with your assigned group members. You will rotate around the room (with no station time limits) and together decide on an answer for each question.

Both the individual and group portions of the exam will be totaled to equal forty (40) points. The individual portion of the exam is timed (with one (1) minute per station) and each question is worth one (1) point (32 points total). The group portion of the exam will have a 30-minute time cap with no time limit per station to encourage discussion among group members. The group portion of the exam will be worth eight (8) points in total, scaled based on correctness.

Pre-Lab Assignments

Pre-lab assignments will be pages on Top Hat that are due at the start of each lab on the date listed in the course schedule above. Each pre-lab assignment may include text, videos, interactive BioDigital models, and assessment questions. The assessment questions will primarily be a mix of multiple-choice, sorting, matching, ordering, and fill-in-the-blank questions. There will also be questions that will ask you to complete a table or upload a drawing.

Each pre-lab assignment is graded based on the completion of the assessment questions, and each is worth four (4) points (all questions within the assignment will be scaled to equal two (2) points for participation and two (2) points for correctness by the 2nd attempt). Please note that Top Hat only records your **last** response. Questions asking you to complete a table or submit a drawing will be graded for both participation and correctness, with correctness measured by your honest attempt. These questions will be hand-graded after the lab is complete. Keys for questions asking you to complete a table or submit a drawing will be posted at the start of each lab.

There will be a total of 15 pre-lab assignments, each worth four (4) points. Instead of dropping the lowest assignment, you can earn up to 56 points on the pre-lab assignments (out of 60 points available). This means that you can miss up to four (4) points on the pre-lab assignments without any penalty.

If you find yourself in a situation that prevents you from completing the pre-lab assignments, please reach out to Dr. Geske as soon as possible so that I may work with you to accommodate your absence. See the make-up policy for more details.

Post-Lab Quizzes

At the conclusion of each of the regular lab sessions (last 10-15 minutes), a post-lab quiz will be given over that day's lab material. **The post-lab quiz will be given through Top Hat; therefore, you are required to bring a device with you to lab that can access the Top Hat website or app.**

Post-lab quizzes are closed notes and will use a lockdown browser. Questions are based on the learning objectives found in **both** the pre-lab assignment and the lab guide for each lab (see the learning objective document for each unit). It is best that you come to lab prepared and utilize each lab session effectively. Please see the **ANTR 355 Strategies for Success** document on Top Hat for more information about how to best prepare for lab.

Each post-lab quiz will consist of six (6) questions worth a total of six (6) points. Most questions on the quiz will be identification questions using images from Anatomy and Physiology Revealed (APR). Some questions may be second-order questions that will ask you to apply a learning objective to an identification question (see **ANTR 355 Lab Exam Procedures** document for more information on these types of questions). Each question is worth one (1) point (0.5 points for participation and 0.5 points for correctness). Quizzes will be given on Top Hat and attendance will be taken prior to the quiz.

There will be a total of 15 post-lab quizzes, each worth six (6) points. Instead of dropping the lowest quiz, you can earn up to 84 points on the post-lab quizzes (out of 90 points available). This means that you can miss up to six (6) points on the post-lab quizzes without any penalty.

If you are unable to attend class due to illness or other documented reasons, please contact Dr. Geske to schedule a make-up online post-lab quiz. The make-up post-lab quiz will consist of six (6) questions, with each question worth one (1) point (0.5 points for participation and 0.5 points for correctness) and will be set to a six (6) minute timer.

Radiology Extra Credit

There are six (6) radiology extra credit assignments on Top Hat. These have a variable number of questions and may take you up to an hour and a half to work through. Each assignment is worth one (1) extra credit point (0.5 points for participation and 0.5 points for correctness by the 2nd attempt) for a possible total of six (6) extra credit points. See the course schedule above for radiology extra credit due dates.

Make-Up Policy

In the event of illness, family emergencies, grief absence, or other excused absences, please contact Dr. Geske and provide documentation, if possible (a list of accepted documentation is found below). Ideally, make-up requests should be made BEFORE and within 36 hours of the assessment due date. A relative or friend should contact Dr. Geske if the student is unable to do so. All make-up requests fall under the discretion of the course director and requests may be denied if students do not follow the policies laid out in the syllabus.

Documentation includes:

- Valid medical excuse: written statement on medical clinic letterhead and signature of attending health professional on or near exam date.
- Grief Absence Request Form through your College and with the approval of your Associate Dean. Michigan State University – and the Division of Human Anatomy – 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. Dr. Geske will work with you to make appropriate accommodations so that you are not penalized due to a verified grief absence.
- Professional/graduate school interviews: emails or letters of interview itinerary should be sent to Dr. Geske at least one week prior to the interview date.
- Top Hat Support emails reporting any issues with questions or connectivity.
- Car accidents/breakdowns: police report, insurance claim information, or towing receipts.
- For vacations, weddings, field trips, scientific meetings, or intercollegiate athletic events, please contact Dr. Geske at least one week prior to the missed assignment due date to make arrangements to make up the assignment(s).
- For other situations not listed here, please contact Dr. Geske to figure out what type of documentation may be appropriate.

If you are exposed/become ill with COVID-19 (or live with/care for someone who is exposed/becomes ill), please follow current MSU guidelines and contact Dr. Geske to request due date extensions or make-up assessments.

Please notify your College for grief absence or extended absences such as hospitalizations. In the case of extended absences, please contact Dr. Geske to discuss options for making up multiple course assignments.

Make-Ups for Labs

If you miss a lab, please contact Dr. Geske as soon as possible. A make-up quiz can be given if you contact Dr. Geske to request one.

Failing to complete three (3) or more pre-lab assignments and/or labs will require a meeting with Dr. Geske to discuss the student's ability and capacity to continue their enrollment in ANTR 355. A student who is unable to meet the academic requirements of ANTR 355 by repeatedly being unable to take examinations or complete pre-lab assignments, labs, and/or post-lab quizzes may need to take a Medical Withdrawal.

Make-Ups for Exams

If you miss an exam, please contact Dr. Geske as soon as possible. Make-up exams will be scheduled based on the faculty's schedule, student's or students' schedule(s), and the open lab schedule. If an alternative time cannot be reached, the make-up exam will be given during the scheduled final exam time for the course.

If only one student needs to make up an exam, the exam may be given orally, and the group portion of the exam will be averaged from the group scores that the student participated in.

If more than one student needs to make up the same exam, a full make-up lab exam may be given or the exam may be given orally. Depending on the exam format, the group portion of the exam will either be conducted with the students making up the exam or it will be averaged from the group scores that the student participated in.

Grade Assignment

Your course grade will be kept up to date in the D2L gradebook. There is a gradebook feature on Top Hat, but it will not be used for your course grade. **It is your responsibility to keep track of your grade and points in D2L.** Grades will be updated after the completion of each quiz and an email notification will be sent through D2L to advise you to check your gradebook. Contact Dr. Geske about any grade errors within two (2) weeks of each assignment posted to the gradebook.

Your final course grade is based solely on your mastery of the course material as reflected by your grand point total. There is no curve in this course, and you will not be bumped up to the next highest grade, even if you are just 0.1 points away.

**Note that the grade scale below has already accommodated rounding.*

Percentage	Final Points	Final Grade
90-100%	309.45 – 344	4.0
85-89%	291.45 – 309.44	3.5
80-84%	274.45 – 291.44	3.0
75-79%	257.45 – 274.44	2.5
70-74%	239.45 – 257.44	2.0
65-69%	222.45 – 239.44	1.5
60-64%	205.45 – 222.44	1.0
0-59%	0 – 205.44	0.0

Incomplete Policy

The MSU registrar requires grades to be submitted by the Tuesday after finals week. As a result, students who are unable to take all exams by the Monday after finals week due to protracted illness or family emergency may receive an Incomplete (I). Students requesting Incompletes must be on track to earn a 2.0 or higher in the course. Incompletes must be reconciled by the middle of the next semester the student is enrolled at MSU. If an Incomplete is not reconciled, the Registrar will automatically turn an “I” into a ‘0.0’. For more information, see “Incomplete grades” on the Registrar's Office website.

Course Policies

Syllabus Disclaimer

This Course Syllabus represents a sincere effort on the part of the faculty to provide a set of policies and procedures that allow for fair and efficient administration of the course to all duly enrolled students. However, unforeseen circumstances or unintended policy consequences may require modification of this syllabus during the semester. The faculty reserve the right to amend this syllabus to accommodate and adapt to any unforeseen circumstances or unintended policy consequences provided all duly enrolled students are treated fairly and equitably without compromising the instructional objectives of the course. All students will be notified of any syllabus amendments via an oral class announcement, email broadcast, and web posting.

Professionalism

Incidents of academic dishonesty or professional misconduct will be addressed by the faculty, administration, or staff; such action may include, but is not limited to: giving a failing grade, referring a student for judicial review, directing the student to the Associate Dean of Medical Education, evaluation by the Committee on Student Evaluation, and other actions outlined in the Medical Student Rights and Responsibilities document.

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>

Academic Honesty

You may (and I encourage you to) work together to complete your assignments and self-assessment questions on Top Hat. I also encourage you to meet with your classmates outside of our designated times for study sessions in the lab.

Post-lab quizzes and exams are closed notes. You will work with your group members on assessments only during the group portion of exams.

Accommodations for Students with Disabilities

Michigan State University is committed to providing equal opportunity for participation in all programs, services, and activities. If you have a documented disability and verification from the [Resource Center for Persons with Disabilities](#) (RCPD) and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to RCPD and meet with an RCPD specialist to request special accommodation *before* classes start.

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 the instructor at the start of the term and/or two (2) weeks prior to the accommodation date.** 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 affecting 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.

Understand 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 and deadlines.

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 instructors, we must report the following information to other University offices (including the Department of Police and Public Safety) if you share it with us:

- 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

For many of you, this will be one of the smallest classes you'll take during your undergraduate education. Typically, that allows the faculty to write you a stronger letter. However, you will need to stand out as a dedicated student.

If you believe you may want a letter of recommendation from Dr. Geske or Dr. Bradley, **please request a letter of recommendation after the first exam**. You will need to **regularly interact with that faculty member** so that they have face-to-face interaction with you. You may be required to fill out a letter of recommendation information packet that may take a few hours to complete. We will only agree to a letter if you plan on applying during the **upcoming application cycle**.

We will also ask you to share any information you can, such as your resume, personal statement, volunteer work, and any research abstracts/posters you have completed. See the AAMC letter of evaluation guidelines to see what is often desired in letters of recommendation.