

## COURSE SYLLABUS

### ANAT 315: CLINICAL HUMAN MUSCULOSKELETAL ANATOMY

#### General Course Information

Course/Section: ANAT 315 -001  
Term and year: Fall 2023  
Number of credits: 3 credits

#### Course Schedule

Lectures: Times: **Wednesdays and Fridays, 8:35 AM – 9:25 AM**  
Location: Leacock Building, Rm 219

Labs: Times: Section 002: **Thursdays 9:35 AM – 11:25 AM**  
Section 003: **Fridays 10:35 AM – 12:25 PM**  
Location: Strathcona Anatomy and Dentistry Building, Room 2/49

#### Course Director / Instructor Information

Name and Title: Dr. Mette Coleman, DSc., FAAOMPT, Faculty Lecturer  
Office: SABD, Room 2/38 A  
E-mail: [mette.coleman@mcgill.ca](mailto:mette.coleman@mcgill.ca)  
Office hours: By appointment (virtual/in-person)

Communication plan: 1. Discussion board via MyCourses  
2. E-mail for specific course inquiries (usual response time: 2-3 days)

#### Teaching Assistant (TA) information

Names: Ms. EmmaGrace Arcadi and Ms. Carol Wissa  
E-mails: [emmagrace.arcadi@mail.mcgill.ca](mailto:emmagrace.arcadi@mail.mcgill.ca) & [carol.wissa@mail.mcgill.ca](mailto:carol.wissa@mail.mcgill.ca)  
Laboratory Section: EmmaGrace – Thursday labs & Carol Wissa – Friday Labs  
Communication plan: 1. In-person anatomy laboratory time  
2. Discussion boards via MyCourses

#### Course Overview

Anatomy and Cell Biology: The regional human gross anatomy of the skeleton, joints, muscles, and neurovascular structures of the body as it relates to physical and occupational therapists and kinesiologists. Laboratories include the guided study of prepared cadaveric specimens (prosections) and the completion of a cadaveric dissection of the lower extremities.

#### Course Description

Clinical Human Musculoskeletal Anatomy (ANAT 315) is designed to provide students with detailed knowledge of human gross anatomy as it relates to the musculoskeletal system, discussing the structural and functional relationships of the structures within this body system. Emphasis will be placed on the following topics: skeletal morphology, muscle identification and function, joint classification, and movement, as well as the neurovascular supply of the musculoskeletal system. The course will follow a regional approach to the musculoskeletal system, beginning with the trunk, followed by the upper limb, and ending with the lower limb. This course also includes a weekly laboratory component in which students will have the opportunity to study and explore the human body through both cadaveric preparations (prosections) and dissection.

## Learning Objectives and Outcomes

By the end of this course, students will be able to...

1. Comfortably use anatomical terminology to describe structural characteristics, specimen/image orientation, location, and types of movement.
2. Outline and discuss the major components and morphological features of the axial and appendicular skeletons.
3. Discuss and describe the classifications of movements of the joints of the trunk and limbs of the body.
4. Describe the anatomical structures related to the function and support of these joints (e.g., ligaments).
5. Identify the muscles of the trunk and limbs of the body, describe their function, and outline their organizational relationship to other structures.
6. Outline the skeletal attachments of the muscles of the trunk and limbs.
7. Identify the neurovascular structures of the trunk and limbs. Outline their course through the body and describe the function they provide at their peripheral target (type of innervation or blood supply).
8. Carry out problem-solving and critical thinking techniques to apply anatomical theory to common clinical implications.
9. Demonstrate and carry out proper dissection techniques.
10. Demonstrate professional respect and responsible care of human specimens.

Please refer to the individual lecture file for topic/content-specific learning objectives.

## Instructional Method

**Lectures:** ANAT 315 will be delivered in person at times and locations specified above. In-person lectures will be recorded and posted to MyCourses after the lectures. However, please make every effort to attend the lectures in person, as the recordings will not capture everything (e.g., demos and in-class polling). The quality and availability of lecture recordings captured by Lecture Recording Systems (LRS) are not guaranteed and should only be treated as a supplemental resource. Your active participation in the in-person lectures will ensure that you gain the most comprehensive understanding of the course material.

**Laboratories:** All ANAT 315 laboratory sessions will be held in person in the anatomy laboratory (SADB room 2/49). In-person labs will NOT be recorded. Students are REQUIRED to attend only the lab section to which they have been assigned and respect their learning-group assignment as well.

The expectation is that students actively participate during the in-person laboratory sessions on a weekly basis; this demands that students prepare before coming to the lab. Labs will be carried out in small groups, and discussions will be facilitated by Teaching Assistants (TAs) and Undergraduate Course Assistants (UCAs).

**PLEASE NOTE:** The lab component is an integral part of this content-heavy course; it is, therefore, essential for students to participate fully in both components of this course to understand the material and to optimize success. Should a student be unable to participate in their weekly lab section indefinitely, they will not be able to complete the course. Students will be required to consult with their student affairs advisor to discuss alternative solutions. Labs will involve the review of cadaveric prosections (previously dissected material), and students will also complete a group dissection on the lower extremities. Students are, therefore, required to wear personal protective equipment (lab coat, gloves, closed-toe shoes, and safety glasses) and to always abide by the safety regulations of the Anatomy lab. It is expected that all students come to the lab prepared to work on the guided self-study activities during their assigned laboratory section. All students must read and electronically sign off on the Code of Conduct Form via myCourses. Students will not be provided access to course content on MyCourses, nor to the Anatomy lab, without confirmation of their signing to the Anatomy Laboratory Code of Conduct.

**PLEASE NOTE:** I do not need to be informed of occasional absences from lectures or labs. There will be no make-up labs. It is your responsibility to catch up on lecture/lab content you may have missed.

### COVID contingency plan

We will continue to follow the guidelines and instructions from McGill University related to COVID-19. If an outbreak leads to a university closure, we will shift to an online format for lectures and/or labs. More instructions will be provided at that time, and please check MyCourses and your email regularly for any relevant course updates.

### COVID-related protocols

- If you are experiencing COVID-compatible symptoms, have tested positive for COVID, or have been in contact with an individual who has tested positive for COVID, please stay home and follow public health directives concerning isolation/quarantine.
- Masks are strongly encouraged in all learning environments. Please respect individuals' [personal choice regarding the use of masks.

### Technologies We Will Use:

- [myCourses](#) – course content, important documents, discussion board
- **Zoom** web conferencing tool – **Lab 1 only**, or lectures, and in the event of a COVID outbreak.
- Online polling platforms. We will use free web-based polling systems to assess students' learning and encourage classroom participation. This participation is not graded but will help give you an idea of the types of questions found on your exams. We will primarily use [SLIDO](#) and [Kahoot](#), though we may also occasionally use complementary platforms. More details to follow.

### Expectations for student participation and conduct

It is the expectation that students conduct themselves in a professional and respectful manner. The University recognizes the importance of maintaining teaching spaces that are respectful and inclusive for all involved. Offensive, violent, disrespectful, or harmful language arising may be cause for disciplinary action.

### Required/Recommended Course Materials

Textbook Resources: These resources are not required. The instructor's recommendations are below.

Students are encouraged to purchase a textbook that suits their study needs and habits.

- Gilroy M. Anatomy: An Essential Textbook, 3rd ed. Thieme; New York, 2021 (highly recommended)
- Gilroy M. Atlas of Anatomy, 4th ed. Thieme, New York; 2020
- Rohen JW, et al. Anatomy: A Photographic Atlas, 9th ed. Wolters Kluwer; 2021

Textbooks have been put on reserve at the libraries; copies for purchase are available at the McGill Bookstore. Earlier versions of these textbooks are acceptable. Other texts, such as Netter's Atlas and Moore's Clinical Anatomy, are also sufficient for this course.

The library provides online access to course materials in its [Course Reserves](#) system. The library links to online materials (both e-books and e-journal articles).

### Other materials to acquire:

- To participate in anatomy laboratory sessions, students will NEED to bring the following list of items, many of which can be purchased at the University Bookstore.
  1. Knee-length lab coat
  2. Protective eyewear (safety glasses or a face shield)
  3. Gloves (e.g., latex or nitrile): Purchase a box or two; you will likely use multiple pairs per lab)
  4. Close-toes shoes
  5. Combination / key lock – Your personal bags/belongings are not permitted inside the anatomy laboratory, and you can store them in lockers in the Strathcona building.

### Learner Assessment / Evaluation

Students will NOT be allowed to write exams prior to the scheduled date. The final exams will be cumulative. The passing grade in the Faculty of Medicine and Education is 55%.

ASSESSMENT	ASSESSMENT DETAILS & DEADLINES	% of FINAL GRADE
Midterm	Date/ Time: <b>TBD</b> Content: Lectures 1- 10 + Lab 1 (Online - Zoom)	20%
Lab Quizzes (Online)	<u>Quiz 1</u> → Content: Labs 2-4; Sept 26 (available 5–11 PM) <u>Quiz 2</u> → Content: Labs 5-8; Oct 31 (available 5–11 PM)	10% (5% each)
Oral Dissection Evaluation	Held in Anatomy Lab in late November, <b>TBD</b>	10%
Final Lab Exam	Content: Cumulative – all laboratory content Date / Time: <b>TBD</b>	20%
Final Exam	Content: Cumulative – but an emphasis on lectures 11-24 Date / Time: <b>TBD</b>	40%

### Department of Anatomy & Cell Biology Midterm Exam/In-Course Assessment Deferral Policy

A MIDTERM exam or other in-course assessment (i.e., quiz, assignment, paper, etc.) in a course administered by the Department of Anatomy & Cell Biology may only be deferred in the case of a justified absence due to serious illness or significant extenuating circumstances AND when valid documentation is received by the Course Coordinator within FIVE working days of the original midterm exam or due date.

If the deferral request is accepted by the Course Coordinator, students may be offered one or both accommodations below, depending on the grading structure of the course:

- a) Add the weight of the midterm exam/in-course assessment to the final exam or another course component.
- b) Write a deferred midterm exam/submit a deferred assessment, which will be scheduled/due within 10 days of the original midterm exam/due date.

Please see the full policy, including information on valid documentation requirements, here:  
[www.mcgill.ca/anatomy/undergraduate/policies-resources](http://www.mcgill.ca/anatomy/undergraduate/policies-resources)

LAB QUIZZES: Students can only add the weight of a deferred lab quiz to the remaining lab quiz. If both lab quizzes are deferred, the weighting will be added to the weight of the Final Lab Exam. Writing a lab quiz outside of the provided timeframe will not be permitted.

### **Departmental policy on deferred final lab exams**

- Requests to defer a final LAB exam for an ANAT course scheduled during the final exam period must be made directly to the Course Coordinator using the request form found on the departmental website:  
[www.mcgill.ca/anatomy/undergraduate/policies-resources](http://www.mcgill.ca/anatomy/undergraduate/policies-resources).
  - Requests to defer a final WRITTEN exam must be made using the deferred exam application in Minerva: [www.mcgill.ca/exams/dates/supdefer](http://www.mcgill.ca/exams/dates/supdefer).
- Students registered with Student Accessibility & Achievement (formerly OSD) may request to complete a deferred lab exam with Student Accessibility & Achievement in accordance with the deadlines and procedures set out by that office, as per the Departmental policy on accommodations for anatomy lab exams.
- All deferred anatomy lab exams will be delivered in the same format as the original lab exam.
- Timing of deferred final lab exams:
  - Fall semester classes: Date to be set within the Winter Add/Drop period, in consultation with students.
  - Winter semester classes: Date to be set during the first week of May, in consultation with students.

### **Grading Policy for the Department of Anatomy & Cell Biology**

The Department of Anatomy & Cell Biology will NOT revise/upgrade marks except on sound academic grounds. Once computed, the marks in this course will NOT be altered/increased arbitrarily. Decimal points will be “rounded off” as follows: if the final aggregate mark is computed to be 79.5%, the mark will be reported as 80% (an A-); a final aggregate mark of 79.4% will be reported as 79% (a B+). These marks are FINAL and non-negotiable.

### **University Policy on Reassessments and Rereads**

Please see the eCalendar for policies regarding reassessments of coursework and rereads of final exams:  
[www.mcgill.ca/study/university\\_regulations\\_and\\_resources/undergraduate/gi\\_final\\_examinations](http://www.mcgill.ca/study/university_regulations_and_resources/undergraduate/gi_final_examinations)

## **Departmental policy on accommodations for anatomy lab exams**

- Students registered with Student Accessibility & Achievement (formerly OSD) who are eligible for exam accommodations and want to request accommodations for an anatomy lab exam must make their request directly to Student Accessibility & Achievement in accordance with the deadlines and procedures set out by that office.
- Lab exams written with Student Accessibility & Achievement will be in the format of a slide-based exam consisting of images equivalent to the specimens used for the in-person lab exam.
- Students approved to complete a lab exam with Student Accessibility & Achievement have the option to choose to forgo their accommodations and complete the exam in-person in the anatomy lab with the rest of the class.

### McGill Policy Statements

#### Language of Submission

“In accord with McGill University’s [Charter of Student Rights](#), students in this course have the right to submit in English or in French any written work that is to be graded. This does not apply to courses in which acquiring proficiency in a language is one of the objectives.” (Approved by Senate on 21 January 2009)

« Conformément à [la Charte des droits de l’étudiant](#) de l’Université McGill, chaque étudiant a le droit de soumettre en français ou en anglais tout travail écrit devant être noté, sauf dans le cas des cours dont l’un des objets est la maîtrise d’une langue. »

#### Academic Integrity

“McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism, and other academic offences under the [Code of Student Conduct and Disciplinary Procedures](#).” (Approved by Senate on 29 January 2003) (See McGill’s [guide to academic honesty](#) for more information.)

« L’université McGill attache une haute importance à l’honnêteté académique. Il incombe par conséquent à tous les étudiants de comprendre ce que l’on entend par tricherie, plagiat et autres infractions académiques, ainsi que les conséquences que peuvent avoir de telles actions, selon le Code de conduite de l’étudiant et des procédures disciplinaires (pour de plus amples renseignements, veuillez consulter le [guide pour l’honnêteté académique de McGill](#).) »

#### **Additional Statements:**

- As the instructor of this course, I endeavor to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me and the Student Accessibility & Achievement (formerly Office for Students with Disabilities) at 514-398-6009.
- The [University Student Assessment Policy](#) exists to ensure fair and equitable academic assessment for all students and to protect students from excessive workloads. All students and instructors are encouraged to review this Policy, which addresses multiple aspects and methods of student assessment, e.g., the timing of evaluation due dates and weighting of final examinations.
- Note that to support academic integrity, your assignments may be submitted to text-matching or other appropriate software (e.g., formula-, equation-, and graph-matching).

- Copyright ©: Instructor-generated course materials (e.g., handouts, notes, summaries, exam questions) are protected by law and may not be copied or distributed in any form or in any medium without the explicit permission of the instructor. Note that infringements of copyright can be subject to follow-up by the University under the Code of Student Conduct and Disciplinary Procedures.
- “McGill University is on land which has long served as a site of meeting and exchange amongst Indigenous peoples, including the Haudenosaunee and Anishinabeg nations. We acknowledge and thank the diverse Indigenous people whose footsteps have marked this territory on which peoples of the world now gather.”  
  
« L’Université McGill est sur un emplacement qui a longtemps servi de lieu de rencontre et d’échange entre les peuples autochtones, y compris les nations Haudenosaunee et Anishinabeg. Nous reconnaissons et remercions les divers peuples autochtones dont les pas ont marqué ce territoire sur lequel les peuples du monde entier se réunissent maintenant. »
- “Content warning: Please be aware that some of the course content may be disturbing for some students. It has been included in the course because it directly relates to the learning outcomes. Please get in touch with the instructor if you have specific concerns about this.”
- [“End-of-course evaluations](#) are one of the ways that McGill works towards maintaining and improving the quality of courses and the student’s learning experience. You will be notified by e-mail when the evaluations are available. Please note that a minimum number of responses must be received for results to be available to students.”
- “In the event of extraordinary circumstances beyond the University’s control, the content and/or evaluation scheme in this course is subject to change.”
- Additional policies governing academic issues that affect students can be found in the McGill Charter of Students’ Rights (see [document](#)).
- McGill has policies on sustainability, paper use, and other initiatives to promote a culture of sustainability at McGill. (See the [Office of Sustainability](#).)
- Guidelines for the use of mobile computing and communications (MC2) devices in classes at McGill have been approved by the APC. Consult the [Guidelines](#) for a range of sample wording that may be used or adapted by instructors on their course outlines.
- Workload management skills: If you are feeling overwhelmed by your academic work and would like to develop your time and workload management skills further, don’t hesitate to seek support from [Student Services](#).
- Wellness: Many students may face mental health challenges that can impact not only their academic success but also their ability to thrive in our campus community. Please reach out for support when you need it; [wellness resources](#) are available on campus, off campus, and online.

This syllabus is an important document and should be saved for future reference.  
It may be needed for credit transfer, employment, certification, or licensing purposes.

## ANAT 315 FALL 2023 – LECTURE AND LAB SCHEDULE

Wk.	Date	Lecture (L)	Topic
1	30/8/23	L1	Intro to anatomy & anatomical terminology
	1/9/23	L2	Vertebral column
31/8 and 1/9 – Lab 1: Bones, joints, and muscles (ONLINE – Zoom link on myCourses)			
2	6/9/23	L3	Intro to the nervous system
	8/9/23	L4	Muscles of the Back and Neck
7/9 and 8/9 – Lab 2: Vertebral column and spinal cord			
3	13/9/23	L5	Thoracic wall
	15/9/23	L6	Abdominal wall
14/9 and 15/9 – Lab 3: Muscles of the back and neck			
4	20/9/23	L7	Intro to upper extremity (UE)
	22/9/23	L8	Shoulder and proximal UE
21/9 and 22/9 – Lab 4: Thoracic and abdominal walls			
5	27/9/23	L9	Axilla
	29/9/23	L10	Brachial plexus
28/9 and 29/9 – Lab 5: Shoulder and proximal UE			
6	4/10/23	L11	Arm and elbow
5/10 and 5/6 – NO LABS – READING WEEK			
7	13/10/22	L12	Anterior forearm and hand
12/10 and 13/10 – Lab 6: Axilla and Brachial plexus			
8	18/10/23	L13	Posterior forearm and hand
	TBD	-	Midterm (contents up to and including lecture 10)
	20/10/23	L14	Intrinsic hand
19/10 and 20/10 – Lab 7: Arm, elbow, and anterior forearm			
9	25/10/23	L15	Intro to the lower extremity
	27/10/23	L16	Hip and gluteal region
26/10 and 27/10 – Lab 8: Posterior forearm and hand			
10	1/11/23	L17	Lumbosacral plexus
	3/11/23	L18	Anterior/medial thigh
2/11 and 3/11 – Lab 9: Hip and gluteal region			
11	8/11/23	L19	Posterior thigh, knee, and popliteal region
	10/11/23	L20	Anterior leg and foot
9/11 and 10/11 – Lab 10: Anterior/medial thigh			
12	15/11/23	L21	Posterior leg and foot
	17/11/23	L22	Intrinsic foot
16/11 and 17/11 – Posterior thigh, knee, and popliteal region			
13	22/11/23	L23	Anatomy of Gait
	24/11/23	L24	Gait disorders
23/11 and 24/11 – Leg and Dorsum of foot			
	29/11/23	L25	Review
	1/12/23	L26	Exam Q/A
30/11 and 1/12 –NO LABS			
TBD = Oral Dissection Evaluation (content: lower limb dissection) Lab Exam and Final Exam – scheduled during the December Exam period			