

**MDSC 521
HUMAN ANATOMY**

Instructors:

Dr. Heather Jamniczky
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Dr. Sarah Anderson
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Office Hours/Policy on Answering Student Emails

Office hours are by appointment. Please note that all course communications must occur through your @ucalgary email, and we will respond to emails sent via students' @ucalgary emails within 48 hours.

Teaching Assistant:

Mr. Austin Ashbaugh
austin.ashbaugh@ucalgary.ca

Time and Location:

***Note: this course is blended and will include both synchronous and asynchronous components.**

Asynchronous dedicated podcast viewing time: M 1030-1150 (except Sept 12, 2022)

Synchronous Lectures: W 1030-1150 HSC G384

Synchronous Laboratories: M 1430-1630 ATSSL

Prerequisite/Co-Requisite:

Fourth-year standing in the BHSc Honours program.

Course Description:

An inquiry-based exploration of clinically significant human anatomy. The course will follow a systems-based approach, and will make use of multiple learning formats. Each week, the instructor will lead classroom and laboratory sessions that explore an anatomical system from developmental, functional, and clinical perspectives.

Overarching Theme

This course places human anatomy into a functional context by emphasizing five major areas of focus across the human body. The course will make use of several different approaches including individual and group work, discussion opportunities and personal reflection, case studies, guest speakers and peer teaching. This course fits into the BHSc program as a key component following from studies in human physiology and organismal biology, providing students with a mechanistic understanding of human anatomy in clinical and social context.

Global Objectives

- Students will develop fluency in the use of anatomical language, and will develop their ability to place anatomical information into a clinical and functional context that is accessible to others.

- Students will be able to explain the relevance of anatomical knowledge to basic and clinical sciences, and use anatomical concepts as a framework for clinical problem solving.
- Students will develop the ability to critically reflect on their own and others' positionality within our society, with particular reference to the health care system and social determinants of health as they relate to anatomical concepts in medicine.

Course Learning Outcomes

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

1. Identify major components of each anatomical system on prosected cadaveric material.
2. Explain the key functions of the major components of each anatomical system, and place these functions into a clinical context where appropriate.
3. Synthesize anatomical information across systems to explain the mechanism(s) behind commonly encountered clinical problems with anatomical correlates.
4. Apply a critical reflective lens that explicitly considers positionality to an understanding of social determinants of health as they relate to anatomical concepts
5. Deliver concise, effective, scientifically accurate and inclusive learning sessions to their peers describing a clinically relevant aspect of human anatomy along with key aspects of relevant societal context.

Transferable Skill Development:

Many of the skills and abilities that you are developing in your coursework are transferable to the workforce, graduate and professional studies and other facets of life. Employers seek applicants with transferable skills because they can be an asset in the workplace, regardless of industry or sector. Transferable skills are core skills for your success in building your future career.

The work that you will do in MDSC521 will help you build the following transferable skills:

- **Collaboration:** Work respectfully with others from different backgrounds, cultures, and countries.
- **Verbal Communication:** Learn and share information by presenting, listening, and interacting with others.
- **Creativity and Innovation:** Find different and better ways to do things, being curious, thinking imaginatively.
- **Critical Thinking:** Actively and skillfully conceptualize, apply, analyze, synthesize, and/or evaluate information (data, facts, observable phenomena, and research findings) to make a reasoned judgement or draw a reasonable conclusion.
- **Digital Skills:** Use digital technologies like computers, social media, virtual meeting platforms, and the internet.
- **Information Literacy:** Find, understand, and use information presented through words, symbols, and images
- **Problem solving:** Identify an issue, find and implement a solution, and assess whether the situation has improved.
- **Project Management:** Conceptualize, initiate, plan and execute a plan to achieve a predetermined goal (project) by effectively prioritizing activities and meeting deadlines.
- **Written Communication:** Share ideas and information by using words, images, and symbols.

Learning Resources

Links to weekly discussion papers and other electronic resources will be provided on the MDSC521 D2L site. There are no required textbooks for this course.

Recommended Textbooks/Readings

The following textbook is recommended for those looking to supplement materials provided in class, but is not required.

Gilroy AM. 2017. Anatomy: An Essential Textbook, 2e. New York: Thieme. Available via the UCalgary Library at: https://medone-education-thieme-com.ezproxy.lib.ucalgary.ca/ebooks/2137188#/ebook_2137188_SL81699818

A Note regarding readings

A list of required readings will be outlined on D2L and links and documents will be made available, where possible. Required readings have been chosen carefully to inform you and enhance the lecture material. **Students are REQUIRED to complete assigned readings BEFORE each learning activity.** Instructors will proceed in class on the assumption that students have read completely the assigned readings. Students should be aware that many of the readings they will be assigned may be of an unfamiliar nature and style. Students should allot sufficient time to allow for several reads of the assigned material.

Learning Technology Requirements

Brightspace (by D2L) is located on the University of Calgary server and will be used extensively for communication with students. **It is the student's responsibility to ensure that they receive all posted communications and documents and that they receive emails sent by instructors or fellow students through D2L.** Only your @ucalgary.ca email address may be linked to D2L. Please ensure that you are regularly checking your @ucalgary.ca account.

Evaluation

The University policy on grading and related matters is described in section F of the 2022-2023 Calendar.

***Note: this course makes use of an ‘ungrading’ approach to assessment¹. For each graded component, students will be invited to provide an assessment of their own performance for that component. These self-assessments will be scaffolded by guiding questions and extensive written feedback will be provided to each student for each submission. THE INSTRUCTORS RESERVE THE RIGHT TO ADJUST, IN CONSULTATION WITH THE STUDENT, THE STUDENT’S SELF-ASSIGNED GRADE FOR ANY COMPONENT OF THE COURSE.**

In determining the overall grade in the course, the following weights will be used:

Grade Component	Weight	Associated learning outcome(s)
Initial formative reflection post (must complete)	5%	2,3,4
Reflection post 1	10%	2,3,4
Reflection post 2	10%	2,3,4
Reflection post 3	10%	2,3,4
Reflection post 4	10%	2,3,4
Reflection post 5*	10%*	2,3,4
<i>*students will have a choice of five opportunities keyed to each major content objective (see Course Schedule), and the best four out of five will be counted in the final grade calculation. There will be opportunities for feedback and resubmission on some of these assignments (see rubrics for details).</i>		
Group presentation peer feedback (must complete; 5 x 2% each)**	10%**	1,2,3,4,5
<i>**students will have a choice of five opportunities keyed to each major content objective (see Course Schedule) to give two presentations on a topic relevant to that unit’s content. For each presentation (except their own) students will provide feedback to their peers. For their own presentations they will include reflection on this activity in their unit reflection post (see above).</i>		
D2L pre-lab quizzes (must achieve 80% to receive full grade on each quiz, with unlimited attempts available; 5 x 6% each)	30%	1,2,3,4
End of course reflection (must complete)	15%	1,2,3,4,5

There will NOT be a final exam scheduled by the Registrar.

A student’s final grade for the course is the sum of the separate assignments. It is not necessary to pass each assignment separately in order to pass the course.

A Note regarding Writing Assignments:

¹ Blum SD, (Ed.). (2020). *Ungrading: Why Rating Students Undermines Learning (and What to Do Instead)*. West Virginia University Press.

Writing skills are important to academic study in all disciplines. In keeping with the University of Calgary's emphasis on the importance of academic writing in student assignments (section E.2 of 2022-23 Calendar), writing is emphasized, and the grading thereof in determining a student's mark in this course. The Bachelor of Health Sciences values excellence in writing. Competence in writing entails skills in crafting logical, clear, coherent, non-redundant sentences, paragraphs and broader arguments, as well as skills with the mechanics of writing (grammar, spelling, punctuation). Sources used in research papers must be properly documented. The University of Calgary offers instructional services through the Students' Success Centre's Writing Support Services (<http://www.ucalgary.ca/writingsupport/>) for students seeking feedback on assignments or seeking to improve their general writing skills. Students are **strongly encouraged** to take advantage of these programs.

Grading Scheme:

Letter Grade	Description	Percentage
A+	Outstanding performance	96-100
A	Excellent performance	90-95.99
A-	Approaching excellent performance	85-89
B+	Exceeding good performance	80-84
B	Good performance	75-79
B-	Approaching good performance	70-74
C+	Exceeding satisfactory performance	65-69
C	Satisfactory performance	60-64
C-	Approaching satisfactory performance	57-59
D+	Marginal pass	54-56
D	Minimal pass	50-53
F	Does not meet course requirements	0-49

Missed Components of Term Work:

Late assignments will lose 5% per day late past the deadline for all assignments if the instructors have not been consulted in advance. Assignments will **NOT** be accepted more than 72 hours after the posted deadline and students failing to submit any assignment within this time frame will receive a mark of zero. **There will be NO exceptions to this policy. Please contact the instructors as soon as possible if you have a challenge in meeting a deadline in the course.**

It is the agreement of all Faculty involved in MDSC 521 that **extensions will NOT normally be granted** on any assignments. The only exceptions to this are those in keeping with the University Calendar (debilitating illness, religious conviction, or severe domestic affliction) that are received in writing and with supporting documentation. Traffic jams and late or full buses are common events in Calgary and are NOT acceptable reasons for late arrivals to class, meetings and examinations. Please note that while absences are permitted for religious reasons, students are responsible for providing advance notice and adhering to other guidelines on this matter, as outlined in the University Calendar (<https://www.ucalgary.ca/pubs/calendar/current/e-4.html>).

Course Evaluations and Student Feedback

Student feedback will be sought at the end of the course through the Universal Student Rating of Instruction (USRI) and a qualitative student evaluation. Students are welcome to discuss the process and

content of the course at any time with the instructor. Students may also address any concerns they may have with Dr. Ebba Kurz, Associate Dean (Undergraduate Health and Science Education) in the Cumming School of Medicine (kurz@ucalgary.ca).

Attendance

Students are expected to attend and participate actively in lecture and laboratory sessions, including presentations by classmates.

Conduct During Lectures

The classroom should be respected as a safe place to share ideas without judgement - a community in which we can all learn from one another. Students are expected to frame their comments and questions to lecturers in respectful and appropriate language, always maintaining sensitivity towards the topic. Students, employees, and academic staff are also expected to demonstrate behaviour in class that promotes and maintains a positive and productive learning environment.

As members of the University community, students, employees and academic staff are expected to demonstrate conduct that is consistent with the University of Calgary Calendar, the Code of Conduct and Non-Academic Misconduct policy and procedures, which can be found at <https://www.ucalgary.ca/legal-services/university-policies-procedures>.

Students are expected to take notes during class and should not rely solely on material supplied by the instructors.

Conduct during Laboratory Sessions

Laboratory and Workbook sessions in this course involve the use of human cadaveric specimens. These materials are utilized as a real-life representation of human anatomical features including the inherent variation present in individuals making up any community. Although these specimens serve as an irreplaceable resource, it is critical that every student not lose sight of the source of these resources and how they come to be available within the program. The anatomical specimens utilized within the Cumming School of Medicine are provided through the gracious generosity of individuals from families in Southern Alberta who agree to have their remains used for educational purposes at the time of death. As such, **ALL anatomical specimens (including skeletal preparations and individual organs) must be treated with the same regard and respect as would be appropriate for any living individual.** Due to the requirements of demonstrating specimens for study, these individuals may be presented in a manner that would be disturbing to their families or members of the general public. In order to protect everyone involved and to demonstrate our regard for these gracious individuals who have entrusted us with such sensitive and personal material, **it is absolutely critical that no photographs be generated that include these specimens, even inadvertently. As such, the Cumming School of Medicine has a strict policy that NO photography is allowed in the anatomical laboratories. In addition, any images or video footage provided in course materials is NOT permitted to be shown to those not enrolled in this course. The specimens will be treated with the highest regard at all times.**

Use of Internet and Electronic Communication Devices in Class

The Bachelor of Health Sciences program aims to create a supportive and respectful learning environment for all students. The use of laptop and mobile devices is acceptable when used in a manner appropriate to the course and classroom activities. However, research studies have found that inappropriate/off-topic use of electronic devices in the classroom negatively affects the learning of others during class time.

Students are responsible for being aware of the University's Internet and email use policy, which can be found at <https://www.ucalgary.ca/policies/files/policies/electronic-communications-policy.pdf> .

UNIVERSITY OF CALGARY POLICIES AND SUPPORTS

Copyright

All students are required to reach the University of Calgary policy on Acceptable Use of Material Protected by Copyright (<https://www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright-policy.pdf>) and requirements of the Copyright Act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorized sharing of course materials (including instructor notes, electronic versions of textbooks, etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy <https://www.ucalgary.ca/pubs/calendar/current/k.html>.

Instructor Intellectual Property

Course materials created by instructors (including course outlines, presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may **NOT** be reproduced, redistributed or copied without the explicit consent of the professor. **The posting of course materials to third party websites such as note-sharing sites without permission is prohibited.** Sharing of extracts of these course materials with other students enrolled in the course **at the same time** may be allowed under fair dealing.

Academic Accommodations

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The Student Accommodations policy is available at <https://ucalgary.ca/student-services/access/prospective-students/academic-accommodations>. Students needing an accommodation based on disability or medical concerns should contact Student Accessibility Services (SAS) in accordance with the Procedure for Accommodations for Students with Disabilities (<https://www.ucalgary.ca/policies/files/policies/procedure-for-accommodations-for-students-with-disabilities.pdf>). SAS will process the request and issue letters of accommodations to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/ .

Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to Dr. Ebba Kurz (kurz@ucalgary.ca), Associate Dean (Undergraduate Health and Science Education).

Academic Misconduct

The University of Calgary is committed to the highest standards of academic integrity and honesty. The University of Calgary has created rules to govern all its members regarding the creation of knowledge and the demonstration of knowledge having been learned.

Academic Misconduct refers to student behaviour that compromises proper assessment of a student's academic activities and includes (but is not limited to): cheating, fabrication, falsification, plagiarism, unauthorized assistance, failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses, and failure to comply with exam regulations applied by the Registrar. **It also includes using of third party websites/services to access**

past/current course material, essay/assignment writing services, or real-time assistance in completing assessments, seeking answers to assessment questions and similar, whether paid, bartered or unpaid.

For information of the Student Academic Misconduct Policy and Procedures, please visit;
<https://ucalgary.ca/policies/files/policies/student-academic-misconduct-policy.pdf>
<https://ucalgary.ca/policies/files/policies/student-academic-misconduct-procedure.pdf>

Additional information is available on the Academic Integrity website at: <https://ucalgary.ca/student-services/student-success/learning/academic-integrity>.

Recording of Lectures

Audio or video recording of lectures (or similar) is prohibited except where explicit permission has been received from the instructor.

Freedom of Information and Protection of Privacy Act

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary

Appeals

If there is a concern with the course, academic matter or a grade, first communicate with the instructor. If these concerns cannot be resolved, students can proceed with an academic appeal, as per Section I of the University Calendar. Students must follow the official reappraisal/appeal process and may contact the Student Ombuds' Office (<http://www.ucalgary.ca/ombuds>) for assistance with this and with any other academic concerns, including academic and non-academic misconduct. Students should be aware that concerns about graded term work may only be initiated **within 10 business days** of first being notified of the grade. <https://www.ucalgary.ca/pubs/calendar/current/i-2.html>

MEDIA RECORDING

Please refer to the following statement on media recording of students: https://elearn.ucalgary.ca/wp-content/uploads/2020/05/Media-Recording-in-Learning-Environments-OSP_FINAL.pdf

Media recording for lesson capture

The instructor may use media recordings to capture the delivery of a lecture. These recordings are intended to be used for lecture capture only and will not be used for any other purpose. Although the recording device will be fixed on the Instructor, in the event that incidental student participation is recorded, the instructor will ensure that any identifiable content (video or audio) is masked, or will seek consent to include the identifiable student content to making the content available on University approved platforms.

Media recording for self-assessment of teaching practices

The instructor may use media recordings as a tool for self-assessment of their teaching practices. Although the recording device will be fixed on the instructor, it is possible that student participation in the course may be inadvertently captured. These recordings will be used for instructor self-assessment only and will not be used for any other purpose.

Media recording for the assessment of student learning

The instructor may use media recordings as part of the assessment of students. This may include but is not limited to classroom discussions, presentations, clinical practice, or skills testing that occur during the course. These recordings will be used for student assessment purposes only and will not be shared or used for any other purpose.

Sexual and Gender-Based Violence Policy

The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's sexual violence policy guides us in how we respond to incidents of sexual violence, including supports available to those who have experienced or witnessed sexual violence, or those who are alleged to have committed sexual violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the policy available at <https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf>

Resources for Support of Student Learning, Success, Safety and Wellness

Student Success Centre	http://www.ucalgary.ca/ssc/
Student Wellness Centre	http://www.ucalgary.ca/wellnesscentre/
Student Advocacy and Wellness Hub (CSM)	https://cumming.ucalgary.ca/student-advocacy-wellness-hub/home
Distress Centre	http://www.distresscentre.com/
Library Resources	http://library.ucalgary.ca

Wellness and Mental Health Resources

The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the excellent mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (<https://www.ucalgary.ca/wellnesscentre/services/mental-health-services>) and the Campus Mental Health Strategy (<http://www.ucalgary.ca/mentalhealth/>).

Student Ombuds' Office

The Student Ombuds' Office supports and provides a safe, neutral space for students. For more information, please visit www.ucalgary.ca/ombuds/ or email ombuds@ucalgary.ca

BHSc Student Faculty Liaison Committee (SFLC)

The BHSc SFLC, with elected representatives from all majors, serves to raise issues of interest to BHSc students to the program administration, including items pertaining to curriculum, scheduling and events. A list of current representatives can be found on the BHSc website.

Student Union (SU) Information

The SU Vice-President Academic can be reached at (403) 220-3911 or suvpaca@ucalgary.ca; the SU representatives for the Cumming School of Medicine can be reached at medrep1@su.ucalgary.ca or medrep2@su.ucalgary.ca.

Student Success Centre

The Student Success Centre provides services and programs to ensure students can make the most of their time at the University of Calgary. Our advisors, learning support staff, and writing support staff assist students in enhancing their skills and achieving their academic goals. They provide tailored learning support and advising programs, as well as one-on-one services, free of charge to all undergraduate and graduate students. For more information visit: <https://www.ucalgary.ca/student-services/student-success>

Emergency Evacuation/Assembly Points

As part of the University of Calgary Emergency Evacuation plan, students, faculty, and staff should locate the closest Assembly Point in case of Fire Alarm. Safety signage is posted throughout the campus showing the locations and the possible route to these locations. All students, faculty, and staff are expected to promptly make their way to the nearest Assembly Point if the Fire Alarm is activated. No one is to return into campus facilities until an all clear is given to the warden in charge of the Assembly Area. For more information, see <https://www.ucalgary.ca/emergencyplan/building-evacuation/assembly-points>

Safewalk

Campus security will escort individuals, day or night, anywhere on campus (including McMahon Stadium, Health Sciences Centre, Student Family Housing, the Alberta Children's Hospital and the University LRT station). Call 403-220-5333 or visit <http://www.ucalgary.ca/security/safewalk>. Use any campus phone, emergency phone or the yellow phone located at most parking lot pay booths. Please ensure your personal safety by taking advantage of this service.

Class Schedule

Week	Lab (M)	Podcast (M)	Discussion (W; note some topics may vary slightly due to class interests explored in week 1)
Sep 5	n/a		Intro to MDSC521 (podcast) Orientation to Reflection (podcast) Opening circle dialogue, concept mapping, exploration of class interests
Sep 12	Bones, muscles, movement	Classroom-based lab orientation discussion Skeletal system Muscular system Innervation	Accessibility and mobility, equity, diversity and inclusivity
Sep 19	Group work	Group work	Presentations x 2
Sep 26	Gas exchange and circulation	Heart Lungs Innervation	Social determinants of heart health
Oct 3	Group work	Group work	Presentations x 2
Oct 10	NO CLASS	NO CLASS	NO CLASS- Time to complete reflection post 2
Oct 17	Eating and drinking	GI tract Urinary tract Innervation	Food insecurity as a social determinant of health
Oct 24	Group work	Group work	Presentations x 2
Oct 31	Sexual health and reproduction	Repro spectrum Innervation	2+LGBTQIA healthcare access
Nov 7	READING BREAK	READING BREAK	READING BREAK
Nov 14	Group work	Group work	Presentations x 2

Nov 21	Neurobiology	Skull Brain Selected cranial nerves	Neurodivergence and/or mental health
Nov 28	Group work	Group work	Presentations x 2
Dec 5	Time to complete final reflection post	Time to complete final reflection post	Closing circle dialogue
