

Course Outline - MDSC 569 Maternal, Fetal and Newborn Physiology

Course Director & Instructor

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Office Hours/Policy on Answering Student Emails

- Contact me by email (fewell@ucalgary.ca) to set up appointment.
- Emails will be answered Monday to Friday from 0800 to 1600; questions regarding course material will be answered within 24 hours.
- Please note that all course communication must occur through your @ucalgary email.

Time and Location:

- Learning will occur in both synchronous (i.e., real-time Zoom lectures) and asynchronous (i.e., text & literature reading assignments) contexts. Lectures, presentations and discussions will be held on Mondays and Wednesdays from 1300 to 1415 via Zoom. Tutorials, as needed, will be held on Fridays from 1300 to 1350 via Zoom.
- This course will take place **online** via Desire2Learn (D2L) and Zoom. To best succeed in the course, students are encouraged to participate in the asynchronous learning tasks (e.g., read assigned material before lectures, presentations and discussions) and synchronous Zoom sessions.

Important Dates

Winter Term

- First day of class: Monday, January 11
- Winter term break (no classes held): February 14-20
- Good Friday/Easter Monday (no classes): April 2, April 5
- Last day of class: Wednesday, April 14

Prerequisite:

- MDSC 404 or Zoology 463

Course Description

- Designed for undergraduates with a general understanding of human physiology who wish to pursue advanced topics in a physiological system(s). The physiological system offered will vary from year to year and students should contact the instructor for more

information prior to enrolling in the course. There will be a review and then build on basic physiological principles through a series of lectures and/or discussion groups.

Overarching Theme

- This is an advanced half-course detailing the fundamental principles and concepts about the physiology of various organ systems in the mother during her adaptation to pregnancy and in the near-term fetus and newborn. Sessions will be facilitated by a published scholar in the field of maternal, fetal and newborn physiology, and will require active student participation.

Global Objective

- The global objective of MDSC 569 is to provide a founding in integrative human physiology of the mother, fetus and newborn.

Learning Objectives

- By the end of this course, students will have a founding in integrative human physiology of the mother, fetus and newborn that will allow them:
 - a) to recall fundamental principles and concepts regarding the physiology of the maternal adaptation to pregnancy, placental function, parturition and organ function in the fetus and newborn as well as the changes that occur during the transition from fetal to newborn life,
 - b) to apply these physiological principles and concepts to predict the bodies' response to perturbations that disrupt homeostasis, and
 - c) to predict how disease or injury of an organ can lead to disordered function (i.e., pathophysiology) and disrupt homeostasis.
- In addition, students will improve their skills in independent learning, oral presentation, scientific writing and critical review of journal articles.

Recommended Textbook

- Selected readings from the scientific literature will be required for this course.

A Note regarding readings

- A list of required readings for MDSC 569 will be outlined on D2L and links and documents will be made available, where possible. Required readings will be carefully chosen to enhance your learning experience. **All students are REQUIRED to attend every session and to complete assigned readings BEFORE each session.** Discussions in class and in tutorials will be conducted with the assumption that the assigned readings have been completed.
- 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.

Evaluation

- The University policy on grading and related matters is described in section F of the 2020-2021 Calendar.

- In determining the overall grade in the course, the following weights will be used:
 - written short essays 50% (maximum one page excluding figures, tables & figures); these will be submitted at regular intervals throughout the term according to the class schedule; there will be five in total worth 10% each.
 - class group presentations 45%; presentations will be done at regular intervals throughout the term according to the class schedule; there will be three in total worth 15% each.
 - class participation 5%.
- Writing and the grading thereof will be a factor in the evaluation of your examination (See [E.2 Writing Across the Curriculum](#) statement.); a passing grade on any particular component is not essential for the student to pass MDSC 569 as a whole; there will not be a final examination in MDSC 569.
- Students in MDSC 569 are not expected to participate as subjects in research projects of professors involved in the course.
- If you believe that a written assignment or class presentation has been marked unfairly, you must discuss your concerns with the course coordinator **within ten business days** of receiving your mark. If not satisfied, you have the right to take the matter to Dr. Ebba Kurz **within two days** who will arrange for a reassessment of the work. The result of this reassessment will be given to the student in writing. The reappraisal of your work may cause the grade to be raised, lowered or to remain the same.

A Note regarding Writing Assignments

- 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 2020-21 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 a number of 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
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	Did not meet course requirements	0-49

Missed Components of Term Work

- Assignments are to be handed in via the D2L dropbox before class each Monday afternoon. Late assignments will NOT be accepted and will receive a mark of zero. Extensions will not be granted on any assignment or class presentation except in the following circumstances: illness, domestic affliction and religious conviction. If you wish to defer an assignment, you must contact the course coordinator before the assignment due date and provide supporting documentation.

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).

Guidelines for Zoom Sessions

- Zoom is a video conferencing program that will allow us to meet at specific times for a 'live' video conference, so that we can have the opportunity to meet each other virtually and discuss relevant course topics as a learning community.
- To help ensure Zoom sessions are private, do not share the Zoom link or password with others, or on any social media platforms. **Zoom links and passwords are only intended for students registered in the course.** Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor's permission.
- The use of video conferencing programs relies on participants to act ethically, honestly and with integrity; and in accordance with the principles of fairness, good faith, and respect (as the Code of Conduct). When entering Zoom or other video conferencing sessions, you play a role in helping create an effective, safe and respectful learning environment. Please be mindful of how your behaviour in these sessions may affect others. **Participants are required to use names officially associated with their UCID** (legal or preferred names listed in the Student Centre) when engaging in these activities. Instructors/moderators can remove those whose names do not appear on class rosters. Non-compliance may be investigated under relevant University of Calgary conduct policies. If participants have difficulties complying with this requirement, they should email the instructor of the class explaining why, so the instructor may consider whether to grant an exception, and on what terms. For more information on how to get the most out of your zoom sessions visit: <https://elearn.ucalgary.ca/guidelines-for-zoom/>.
- If you are unable to attend a Zoom session, please contact your instructor to arrange an alternative activity (where available). Please be prepared, as best as you are able, to join class in a quiet space that will allow you to be fully present and engaged in Zoom sessions.

Students will be advised by their instructor when they are expected to turn on their webcam (such as for group work, presentations, etc).

- The instructor may record online Zoom class sessions for the purposes of supporting student learning in this class – such as making the recording available for review of the session or for students who miss a session. Students will be advised before the instructor initiates a recording of a Zoom session. These recordings will be used to support student learning only.

Attendance

- Students are expected to attend all sessions and are responsible for all material presented. Students are expected to take notes during each session and should not rely solely on handout material supplied by the instructors.

Conduct During Lectures

- The classroom (whether in-person or virtual) 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/policies/forms/title>.
- **Students are expected to take notes during class and should not rely solely on material supplied by the instructors.**

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 negatively affects the learning of the user and 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>).

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 their instructor.

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/.

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.

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 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>

Sexual 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/sexual-violence-support/policy>

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/
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.