

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.

Time and Location:

- Lectures, presentations and discussions will be held on Mondays & Wednesdays from 1300 to 1415 in HSC G743. Tutorials, as needed, will be held on Fridays from 1300 to 1350 in HSC 1405B

Prerequisite:

- MDSC 404 Integrative Human Physiology, Zoology 461 & 463 Animal Physiology I & II or consent of course director.

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 foundation 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.2 of the 2018-2019 Calendar.
- In determining the overall grade in the course, the following weights will be used:
 - written short essays 40% (maximum one page excluding figures, tables & figures),
 - class group presentations 40%, and
 - class participation 20%.
- 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 fifteen days** of

receiving your mark. If not satisfied, you have the right to take the matter to Dr. Ebba Kurz who will arrange for a reassessment of the work **within the next fifteen days**. 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 2018-19 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). 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

A+ 97-100%	B+ 80-84%	C+ 65-69%	D+ 54-56%
A 90-96%	B 75-79%	C 60-64%	D 50-53%
A- 85-89%	B- 70-74%	C- 57-59%	F 0-49%

Missed Components of Term Work

- Assignments are to be handed in 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: debilitating illness, severe 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.

Brightspace by Desire2Learn (D2L)

- Brightspace (by Desire 2 Learn) 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.** Using an email address on the University server (name@ucalgary.ca) will ensure that you receive emails and that, should the server ever be down, instructors will be aware of it. Other servers sometimes filter D2L or instructor group mailings as spam; **we therefore require that you have your @ucalgary.ca email address linked to D2L.**
- If you need help accessing or using D2L, please visit the Desire2Learn resource page for students: <http://elearn.ucalgary.ca/d2l-student/>.

Policies Governing the Course:

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 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 conduct themselves in a mature and courteous manner during ALL lectures. Students are expected to frame their comments and questions to lecturers in respectful and appropriate language, always maintaining sensitivity towards the topic.

Electronic Devices

- The Bachelor of Health Sciences program aims to create a supportive and respectful learning environment for all students. Research studies have found that student use of electronic devices (laptops, tablets, etc) in the classroom negatively affects the learning of both the user and those sitting nearby. Inappropriate use of laptops is also disruptive to your fellow classmates and disrespectful to the lecturer. Their use in the classroom is **strongly discouraged** and may be prohibited by instructors except in circumstances related to course content. Should laptops be permitted, their use is limited to taking notes and **NOT to surf the web, check email or do other unrelated work**. Students who use their laptops inappropriately or are otherwise disruptive during lectures will be asked to leave. Repeat offences may be considered non-academic misconduct and disciplined accordingly.
- Cell phones and similar devices **must be turned off** (not merely silent) during class time. Students who disregard this rule during lectures or tutorials will be asked to leave. These items are not permitted under any circumstance during exams/quizzes, etc.

Copyright

- It is the responsibility of students and professors to ensure that materials they post or distribute to others comply with the Copyright Act and the University's Fair Dealing Guidance for Students (library.ucalgary.ca/files/library/guidance_for_students.pdf). Further information for students is available on the Copyright Office web page (<http://library.ucalgary.ca/copyright>)

A Note Regarding Instructor Intellectual Property

- Generally speaking, course materials created by professor(s) (including course outlines, presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the professor(s). 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 Based on Disability or Medical Condition

- It is the student's responsibility to register with Student Accessibility Services to be eligible for formal academic accommodation 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_0.pdf). If you are a student who may require academic accommodation and have not registered with Student Accessibility Services, please contact their office at (403) 220-8237; <http://www.ucalgary.ca/access/>. Students will be provided with all necessary accommodations to ensure equal opportunity to succeed in this course. Please provide the instructor your accommodation letter from Student Accessibility Services within 14 days after the start of this course so that all needed arrangements for exams and assignments can be made.

Accommodations on Protected Grounds other than Disability

- Students who require an accommodation in relation to their coursework based on a protected ground other than disability, should communicate this need, preferably in writing, to the designated BHSc program contact, Mrs. Jennifer Logan (jljlogan@ucalgary), or to Dr. Ebba Kurz, Associate Dean, Undergraduate Health and Science Education, Cumming School of Medicine. Students who require an accommodation unrelated to their coursework or the requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Vice-Provost (Student Experience). 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. These rules are contained principally in Sections J to L of the *University of Calgary Calendar*. Students are expected to be familiar with these standards and to uphold the policies of the University in this respect. The Calendar also stipulates the penalties for violating these rules. Please know that the University and the Cumming School of Medicine take these rules seriously. **All incidences of academic dishonesty in this course, such as cheating and plagiarism, will be reported to the Associate Dean for investigation;** infractions will be noted on the record of a student found to be guilty.

Recording of Lectures

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

Other Important Information

Freedom of Information and Protection of Privacy Act

- This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIP) and students should identify themselves on written assignments (exams and term work.) by their name and ID number on the front page and ID on each subsequent page. Assignments given by you to your course instructor will remain confidential unless otherwise stated before submission. The assignment cannot be returned to anyone else without your expressed permission to the instructor. Grades will be made available on an individual basis and students will not have access to other students' grades without expressed consent. Similarly, any information about yourself that you share with your course instructor will not be given to anyone else without your permission. See <http://www.ucalgary.ca/policies/files/privacy-policy-2011.pdf> for more information.

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/provost/students/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 15 days of first being notified of the grade.

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 (Room 370 MacEwan Student 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

Student Union (SU) Information

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

Emergency Evacuation/Assembly Points

- Assembly points for emergencies have been identified across campus. Assembly points are designed to establish a location for information updates from the emergency responders to the evacuees; and from the evacuated population to the emergency responders. The primary assembly point for the Health Science Centre is the Health Research Innovation Centre (HRIC) Atrium. For more information, see the University of Calgary's Emergency Management website:
<http://www.ucalgary.ca/emergencyplan/assemblypoints>.

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.