



CUMMING SCHOOL OF MEDICINE  
GRADUATE COURSE OUTLINE

<b>COURSE TITLE:</b> Topics in Systems Physiology			
<b>Course</b>	MDSC 620		
<b>Pre/Co-Requisites</b>	Consent of the Course Coordinator		
<b>Faculty</b>	Cumming School of Medicine, Graduate Science Education		
<b>Instructor Name(s)</b>	Pierre-Yves von de Weid	<b>Email</b>	vonderwe@ucalgary.ca
<b>Office Location</b>	HSC1645	<b>Office Hours</b>	9 am – 5 pm, Mon - Fri
<b>Instructor Email Policy</b>			
<b>Telephone No.</b>	403-2207967		
<b>TA Name</b>		<b>Email</b>	
<b>Class Term, Days</b>	Wednesday September 9 <sup>th</sup> to Wednesday December 9 <sup>th</sup> 2020, M+W		
<b>Class Times</b>	10:30 – 11:50 am		
<b>Class Location</b>	Zoom for remote lectures and G748 for face-to-face presentations		

**This course is offered in a blended synchronous online via Zoom and face-to-face format.** When unable to participate live and/or in person due to the time difference or unforeseen circumstances, inform the instructor in advance and propose and implement an alternative participation activity

<b>COURSE INFORMATION/DESCRIPTION OF THE COURSE</b>
Designed for graduate students undertaking research in physiology or related disciplines, the course will broadly encompass basic physiological mechanisms with an emphasis on the role of the autonomic nervous system in the regulation of the cardiovascular, respiratory, gastrointestinal, renal, endocrine, and reproductive systems. A series of topics ranging from basic physiological systems through to translational clinical topics will be covered in a lecture and discussion format. Lectures will be followed by student presentations and critical discussion on related topics using selected original research articles. All students are expected to participate in whole group discussion.
<b>LEARNING RESOURCES/REQUIRED READING</b>
Access to library resources - There will not be a requirement for a designated textbook.

<b>COURSE OBJECTIVES/LEARNING OUTCOMES</b>
The general objective of the course is to (1) facilitate development of critical and analytical skills in selected topics in physiology and (2) create and develop an interactive learning environment At the end of the course, students will be able to:



(i)	demonstrate an understanding of the fundamental regulation of major physiological organ systems
(ii)	critically analyze scientific research papers in selected areas of physiology
(iii)	apply principles of integrative physiology to scientific research
(iv)	demonstrate scientific critique, methods of research investigations and oral presentations

**Communication**

Brightspace (By D2L) is located on the University of Calgary server and will be used extensively for communication with Students. A link to the zoom class will be provided on D2L. It is the student’s responsibility to ensure that they receive all posted communications and documents and that they receive e-mails send by instructors of fellow students through D2L. Only your @ucalgary.ca e-mail address maybe linked to D2L. Please ensure that you are regularly checking your @ucalgary.ca account

**Learning Technology Requirements**

In order to successfully engage in learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security and malware updates;
- A current and updated web browser;
- Webcam (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled;
- Broadband internet connection

Most current laptops will have a built-in webcam, speaker and microphone.

Please see the following for a detailed explanation of the minimal required technology for online learning <https://elearn.ucalgary.ca/technology-requirements-for-students/>

A laptop, desktop, tablet or mobile device is required for D2L access. If you need help accessing or using D2L, please visit the Desire2Learn resource page for students: <http://elearn.ucalgary.ca/d2l-student/>.

<b>CUT POINTS FOR GRADES</b>			
This course adheres to the grading system outlined in the University of Calgary, Faculty of Graduate Studies Calendar. Grades of A+ and A are not distinguished in the calculation of GPAs. Percentage/letter grade conversion used for this course is as follows			
<b>Grade</b>	<b>Grade Point Value</b>	<b>Percentage Conversion</b>	<b>Graduate Description</b>
A+	4.00	95-100	Outstanding

A	4.00	85-94	Excellent – superior performance showing comprehensive understanding of the subject matter
A-	3.70	80-84	Very Good Performance
B+	3.30	75-79	Good Performance
B	3.00	70-74	Satisfactory Performance
B-	2.70	65-69	Minimum Pass for Students in the Faculty of Graduate Studies
C+	2.30	55-64	All grades below 'B-' are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements
C	2.00	50-54	

<b>Assessment Components:</b> The University policy on grading related matters is outlined in the <a href="#">2019-2020 Calendar</a> .			
Assessment Methods	Description	Weight %	Due Date <u>and</u> Time
Oral presentation #1	Class journal club style presentation, student has choice of paper	20%	
Oral presentation #2	Class journal club style presentation chosen from a list related to lectures' topics	30%	
Written paper	Written assignment on important discovery related to human physiology	30%	Dec 2 <sup>rd</sup> , midnight
Class participation	Individual participation throughout sessions	20%	

<b>ASSESSMENT AND EVALUATION INFORMATION</b>
<p><b>ATTENDANCE AND PARTICIPATION EXPECTATIONS:</b> The schedule will be divided into lectures and journal club style presentations, with active participation and discussion expected for both. Students will each present 2 papers in a journal club style. The first one will be of their choice, related to their field of interest, while the second will be assigned/chosen based on a selection of papers provided by the instructors. Students are REQUIRED to complete the reading of assigned papers BEFORE each student presentation. Discussions in class will be conducted with the assumption that the papers assigned have been read. Students are also REQUIRED to submit a written assignment.</p> <p><b>GUIDELINES FOR SUBMITTING ASSIGNMENTS:</b> Guidelines will be provided during the first class.</p>

**FINAL EXAMINATIONS:**

No final examination.

**EXPECTATIONS FOR WRITING:**

Expectations will be provided during the first class.

**LATE AND/OR MISSING ASSIGNMENTS:**

We do not anticipate late assignments. However a 5% penalty per day will be given without prior agreement.

Is a passing grade on a particular component essential to pass the course as a whole? No

COURSE TIMETABLE			
Course Schedule Date	Topic & Reading	Instructor	Assignments/Due Dates & Times
Sep. 9 (W)	Introduction and overview to course	P.-Y. von der Weid	Via Zoom
Sep. 14 (M)	LECTURE 1: Physiology: A brief History	P.-Y. von der Weid	Via Zoom
Sep. 16 (W)	LECTURE 2: Scientific presentations, paper & critique example	P.-Y. von der Weid	Via Zoom
Sep. 21 (M)	LECTURE 3: Introduction to the Autonomic Nervous System	M. Giembycz	Via Zoom
Sep. 23 (W)	LECTURE 4: Respiratory system: ANS control of airway function in health & disease	M. Giembycz	Via Zoom
Sep. 28 (M)	LECTURE 5: Heart	W. Chen	Via Zoom
Sep. 30 (W)	LECTURE 6: Circulatory system: Vascular	W. Cole	Via Zoom
Oct. 5 (M)	LECTURE 7: Circulatory system: Lymphatics	P.-Y. von der Weid	Via Zoom
Oct. 7 (W)	Prep Time	No Class	
<b>Oct. 12 (M)</b>	<b>Thanksgiving Holiday</b>	<b>NO CLASS</b>	
Oct. 14 (W)	Student Journal Club Presentation & discussion (I)	P.-Y. von der Weid	G748
Oct. 19 (M)	Student Journal Club Presentation & discussion (II)	P.-Y. von der Weid	G748
Oct. 21 (W)	Student Journal Club Presentation & discussion (III)	P.-Y. von der Weid	G748



Oct. 26 (M)	Student Journal Club Presentation & discussion (IV)	P.-Y. von der Weid	G748
Oct. 28 (W)	LECTURE 8: GI: organization of GI function / physiology	K. Flanigan	Via Zoom
Nov. 2 (M)	LECTURE 9: GI: enteric nervous system, brain gut axis /secretion motility	J.-B. Cavin	Via Zoom
Nov. 4 (W)	LECTURE 10: Endocrine - Adrenal	F. Smith	Via Zoom
<b>Nov. 9 (M)</b>	<b>Reading Week</b>	<b>NO CLASS</b>	
<b>Nov. 11 (W)</b>	<b>Reading Week</b>	<b>NO CLASS</b>	
Nov. 16 (M)	LECTURE 11: Renal	F. Smith	Via Zoom
Nov. 18 (M)	LECTURE 12: Reproductive System: role of the ANS	D. Slater	Via Zoom
Nov. 23 (M)	Prep Time	No Class	
Nov. 25 (W)	Prep Time	No Class	
Nov. 30 (M)	Student Journal Club Presentation & discussion (V)	P.-Y. von der Weid	G748
Dec. 2 (W)	Student Journal Club Presentation & discussion (VI)	P.-Y. von der Weid	G748; Written paper due (midnight)
Dec. 7 (M)	Student Journal Club Presentation & discussion (VII)	P.-Y. von der Weid	G748
Dec. 9 (W)	Student Journal Club Presentation & discussion (VIII)	P.-Y. von der Weid	G748

### 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.

### **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/policies/forms/title>.

#### **INTERNET AND ELECTRONIC COMMUNICATION DEVICE INFORMATION**

Cell phones must be turned off in class unless otherwise arranged with the instructor.

The use of laptop and mobile devices is acceptable when used in a manner appropriate to the course and classroom activities. Students are to refrain from accessing websites that may be distracting for fellow learners (e.g. personal emails, Facebook, YouTube). 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-communicationspolicy.pdf>.

#### **MEDIA AND RECORDING IN LEARNING ENVIRONMENTS**

##### **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 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.

#### **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.

#### **Student Recording of Lectures**

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

### **UNIVERSITY OF CALGARY POLICIES AND SUPPORTS**

#### **ACADEMIC ACCOMMODATIONS**

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit [www.ucalgary.ca/access/](http://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 their Instructor. The full policy on Student Accommodations is available at <http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf>

#### **IMPORTANT INFORMATION**

Any research in which students are invited to participate will be explained in class and approved by the appropriate University Research Ethics Board

#### **INSTRUCTOR INTELLECTUAL PROPERTY**

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



### **COPYRIGHT LEGISLATION**

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright ([www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf](http://www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.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 unauthorised 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

### **ACADEMIC INTEGRITY**

The Cumming School of Medicine expects intellectual honesty from its students. Course participants should be aware of University policies relating to Principles of Conduct, Plagiarism and Academic Integrity. These are found in the printed Faculty of Graduate Studies Calendar, or online under Academic Regulations in the Faculty of Graduate Studies Calendar, available at [Faculty of Graduate Studies Academic Regulations](#)

### **ACADEMIC MISCONDUCT**

For information on academic misconduct and its consequences, please see the University of Calgary Calendar at <http://www.ucalgary.ca/pubs/calendar/current/k.html>

### **EMERGENCY EVACUATION AND ASSEMBLY POINTS**

Assembly points for emergencies have been identified across campus. The primary assembly points for South Campus (Health Science Centre (HSC); Health & Research Innovation Centre (HRIC); Heritage Medical Research Building (HMRB) and Teaching, Research and Wellness (TRW)) are:

- HSC and HMRB: HRIC Atrium (alternate assembly point is Parking Lot 6)
- HRIC: HMRB Atrium (alternate assembly point is Parking Lot 6)
- TRW: McCaig Tower (alternate assembly point is HMRB – Atrium)

### **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 N of the Faculty of Graduate Studies Calendar. Students must follow the official process and should 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

### **THE FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY (FOIP) 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





### **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 website <https://www.ucalgary.ca/mentalhealth/>

### **SUPPORTS FOR STUDENT LEARNING, SUCCESS, AND SAFETY**

**Student Ombudsman:** The Student Ombuds' Office supports and provides a safe, neutral space for students. For more information, please visit [www.ucalgary.ca/ombuds/](http://www.ucalgary.ca/ombuds/) or email [ombuds@ucalgary.ca](mailto:ombuds@ucalgary.ca)

**Student Union:** The SU Vice-President Academic can be reached at (403) 220-3911 or [suvpaca@ucalgary.ca](mailto:suvpaca@ucalgary.ca); Information about the SU, including elected Faculty Representatives can be found here: <https://www.su.ucalgary.ca>

**Graduate Student's Association:** The GSA Vice-President Academic can be reached at (403) 220- 5997 or [gsa.vpa@ucalgary.ca](mailto:gsa.vpa@ucalgary.ca); Information about the GSA can be found here: <https://gsa.ucalgary.ca>

### **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.