



CUMMING SCHOOL OF MEDICINE  
GRADUATE COURSE OUTLINE  
Fall 2020

COURSE TITLE: Organ and Function of GI Tract			
<b>Course</b>	<b>MDSC 637.01</b>		
<b>Pre/Co-Requisites</b>	Consent of the instructor. If you have taken Animal Physiology II (ZOOL463) or Integrated Human Physiology (MDSC404) please discuss with the Course Co-ordinator		
<b>Faculty</b>	Cumming School of Medicine, Graduate Science Education		
<b>Instructor Name(s)</b>	Dr. D-M McCafferty (course coordinator) & various special topics instructors	<b>Email</b>	dmmccaff@ucalgary.ca
<b>Office Location</b>	HSC 1843	<b>Office Hours</b>	N/A
<b>Instructor Email Policy</b>	Contact Dr D-M McCafferty via email <a href="mailto:dmmccaff@ucalgary.ca">dmmccaff@ucalgary.ca</a> who will direct queries to the appropriate instructor. The student will receive a response within 24 h		
<b>Telephone No.</b>	403 210 9714		
<b>TA Name</b>	N/A	<b>Email</b>	
<b>Class Term, Days</b>	Mondays & Wednesdays		
<b>Class Times</b>	10:00-11:30		
<b>Class Location</b>	On-line via Zoom		

This course will take place **online** via Desire2Learn (D2L) and Zoom via synchronous instruction. To best succeed in the course, students are encouraged to participate in the synchronous Zoom sessions. When unable to participate live due to the time difference or unforeseen circumstances, inform the instructor in advance and propose and implement propose an alternative participation activity.

COURSE INFORMATION/DESCRIPTION OF THE COURSE
<p>MDSC 637.01 is a mandatory course for students enrolled in the Cumming School of Medicine Gastrointestinal Sciences graduate program (MDGI) and is aimed at preparing students for success in the MDGI program. Students in MDGI will do research in a wide range of research projects conducted by members of the Gastrointestinal Research Group (GIRG). Projects are primarily aimed at better understanding normal function of the digestive system and the mechanisms responsible for dysfunction and the development of disease. For further information and a list of recent publications, consult the GIRG's web site at <a href="http://www.ucalgary.ca/girg/">http://www.ucalgary.ca/girg/</a>. MDSC 637.01 will cover basic knowledge in gastrointestinal physiology,</p>



written and oral communication skills (weeks 1-8) and introduce students to current topics in intestinal immunopathophysiology (weeks 9-12).

#### LEARNING RESOURCES/REQUIRED READING

- A) The course will use an online textbook Gastrointestinal Physiology by Kim E. Barrett found at <http://accessmedicine.com>
- B) The Mosby Physiology Monograph Series - Gastrointestinal physiology, 7th Edition by Leonard R. Johnson is recommended

#### COURSE OBJECTIVES/LEARNING OUTCOMES

At the successful completion of this course, students should be able to;

1. Identify and describe the organization and function of the different segments of the gastrointestinal tract and associated organs as well as their interactions in the integrated response to a meal.
2. Integrate basic physiological function and mechanisms to understand pathophysiological outcomes.
3. Demonstrate effective communication skills through oral presentation and written assignments.
4. Analyze primary research articles pertaining to the field of mucosal immunopathology and critique their hypothesis, methods, major findings, and conclusions.

#### 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

Include any learning technology requirements. **Please discuss how you will communicate with your students (including how you provide link to online classes)**

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> .			
<b>Assessment Methods</b>	<b>Description</b>	<b>Weight %</b>	<b>Due Date and Time</b>
Mid session exam	This exam will cover the content of the lectures in weeks 1-8 and will take the form of multiple choice and short answer questions or essay-type questions.	26.66 %	In class time- week 7

Literature review (8 pages)	The literature review should be 8 pages double spaced on a topic given in the first week of class. A rubric for evaluation of presentations will be available on D2L with the assignment instructions.	20 %	Week 8
Oral presentation	Each student will be required to present one 20- minute oral presentation followed by 10 min of Q & A on the literature review topic given in the first week of class. A rubric for evaluation of presentations will be available on D2L with the assignment instructions.	13.33%	Week 8
Class participation (weeks 1-8)	The grade for class participation will be based on an assessment of active student engagement in class using the following criteria: attendance, attentive listening, effective listening through participation in classroom Q & A, and asking relevant questions/ participation in discussion especially during oral presentations by peers.	6.66 %	
Two paper critiques	Critiques should be 3 pages double spaced. Papers for critiques will be distributed at the start of Week 8. Information on how to write a critical review can be found at <a href="https://student.unsw.edu.au/writing-critical-review">https://student.unsw.edu.au/writing-critical-review</a> . A rubric for evaluation of the written assignments will be available on D2L with the assignment instructions.	10.01 % (x 2)	Weeks 9-12
Participation (Weeks 8-12)	Weeks 8-12 consists of four core lectures plus four journal club sessions where current literature pertaining to the topic is reviewed. All students are expected to review the journal manuscripts and come prepared to present and/or discuss them in class. The style of journal club may vary depending on the instructor. Information about each journal club session will be posted on D2L, along with the articles discussed.	13.33 %	

#### ASSESSMENT AND EVALUATION INFORMATION

**ATTENDANCE AND PARTICIPATION EXPECTATIONS:** attendance and participation are requirements. See above for participation expectations.



**GUIDELINES FOR SUBMITTING ASSIGNMENTS:** see rubriks available on D2L.

D2L: Desire to Learn (D2L) is located on the University server and will be used for communicating with students. Course documents and information for assignments including topics and critique papers will be available on D2L. **It is your responsibility to ensure that you access D2L for all posted communications and documents.** Your e-mail address on D2L will be the one you gave to the Registrar. **To ensure you receive e-mails sent by instructors or fellow students through D2L you should use an email on the University of Calgary server (your name@ucalgary.ca address).** Using an e-mail address on the University of Calgary server (your name@ucalgary.ca) will ensure that you receive e-mails and that, should the server be down, instructors are aware of it. Other servers sometimes filter our e-mails to students as spam.

**FINAL EXAMINATIONS:** none

**EXPECTATIONS FOR WRITING:** see instructions provided on D2L. In week one a class on writing expectations is delivered. Rubrics for assignments will be provided on D2L

**LATE AND/OR MISSING ASSIGNMENTS:** Late assignments will be penalized 10 % per day overdue

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
09-Sept	Introduction to course outline Presentations skills (oral and written)	Dr. D-M McCafferty	
14-Sept	Overview of gastrointestinal anatomy & function	Dr. D-M McCafferty	
16-Sept	Principles of Gastrointestinal control	Dr. D-M McCafferty	
21-Sept	Gastric Secretion	Dr. D-M McCafferty	
23-Sept	Gastrointestinal Motility	Dr. D-M McCafferty	
28-Sept	Liver & Biliary System	Dr. D-M McCafferty	
30-Sept	Pancreatic Secretions	Dr. D-M McCafferty	
5-Oct	Digestion & Absorption	Dr. D-M McCafferty	
7-Oct	Mucosal Immunology	Dr. D-M McCafferty	
12-Oct	No Class-Thanksgiving		
14-Oct	Introduction to Journal Clubs	TBA	
19-Oct	Free time (or Q & A)	Dr. D-M McCafferty	
21-Oct	<b>MIDTERM EXAM</b>		Midterm Exam
26-Oct	Draft Talk Feedback	Dr. D-M McCafferty	

28-Oct	STUDENT PRESENTATIONS	Dr. D-M McCafferty & Guests	Oral Presentations
02-Nov	STUDENT PRESENTATIONS	Dr. D-M McCafferty & Guests	<b>Literature Review Due Nov 6<sup>th</sup>, 9 AM</b>
04-Nov	<u>Topic 1:</u> The impact of the host-microbe interactions on the metabolism of drugs - have physiologists and pharmacologist overlooked something?	Dr. Simon Hirota	
09-Nov	No Class-Block week		
11-Nov	No Class-Block week		Journal Discussion (Topic 1)
16-Nov	Journal Discussion (Topic 1)		
18-Nov	<u>Topic 2:</u> The lymphatic system: a critical player in intestinal homeostasis.	Dr. P-Y von der Weid	
23-Nov	Journal Discussion (Topic 2)		<b>Written critique #1 Due Nov 18<sup>th</sup>, 9 AM</b>
25-Nov	<u>Topic 3:</u> Inflammation in the Liver	Dr. Paul Kubes	
30-Nov	Journal Discussion (Topic 3)		
02-Dec	<u>Topic 4:</u> Parasitic helminth regulation of disease	Dr. Derek McKay	
07-Dec	Journal Discussion (Topic 4)		<b>Written critique #2 Due Dec 9<sup>th</sup>, 9 AM</b>

### 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>.

<b>INTERNET AND ELECTRONIC COMMUNICATION DEVICE INFORMATION</b>
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 (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**

Audio and video recording of lectures will be taken and accessible to students upon. These recordings are intended to be used for lecture review only and will not be used for any other purpose.

### **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, student participation in the course may be captured. These recordings will be used for instructor self-assessment only and will not be used for any other purpose.

## **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.