



**CUMMING SCHOOL OF MEDICINE
GRADUATE COURSE OUTLINE**

COURSE TITLE: Fundamentals of Epidemiology			
Course	MDCH/VETM 640		
Pre/Co-Requisites	A working knowledge of basic statistics and probability is beneficial, usually at least an undergraduate statistics course. The official co-requisite is MDCH 610 (Biostatistics I).		
Faculty	Cumming School of Medicine, Graduate Science Education		
Instructor Name(s)	Kirsten Fiest and Miranda Fidler-Benaoudia	Email	kmfiest@ucalgary.ca miranda.fidler-benaoudia@ahs.ca
Office Location	Online only	Office Hours	By appointment
Instructor Email Policy	Email will be answered within 24 hours (unless extenuating circumstances)		
Telephone No.	403-944-1478		
TA Name	TBA	Email	TBA
Class Term, Days	Fall 2020: Lectures: Pre-recorded online. Tutorials: Online Tuesdays. Labs: Online Thursdays.		
Class Times	Online lecture and tutorial material for the week will be released Monday mornings at 8AM and should be watched by Tuesdays at 11:00 (except for the first and final lectures which will be live online). Tutorials: Online 11:00-11:50. Labs: Online 09:30-11:30.		
Class Location	Online (via Zoom or Microsoft Teams)		

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

COURSE INFORMATION/DESCRIPTION OF THE COURSE
This course covers the principles and methods of descriptive and analytic epidemiology. Emphasis is on the underlying concepts and methodological approaches of epidemiological research leading to competency in critical appraisal of epidemiologic studies including: observational and interventional study designs. Topics include vulnerability to bias, measures of frequency and association, basic methods for addressing sampling variability, confounding, and effect modification. Concepts related to causal judgement in epidemiology are also introduced. Assumptions about Incoming Students: Detailed knowledge of any specific content area related to health care or research, e.g. cancer, infectious disease is not assumed. It is assumed that all incoming students will

be familiar with basic statistical concepts, for example, by having taken an undergraduate statistical course or taking MDCH 610 (Biostatistics I) as a co-requisite.

Some of the instructional materials and tutorials will make use of spreadsheets, so you may find it valuable to have a spreadsheet program (e.g. Excel, OpenOffice) on your computer. The examples provided to you will be in Excel format. You will need a calculator, tablet or laptop for each class. The Labs will use Stata.

LEARNING RESOURCES/REQUIRED READING

Epidemiology for Canadian Students, 2nd edition. Patten SB. Brush Education, Edmonton, 2018.

Epidemiology for Canadian Students Workbook. Fiest, KM. Brush Education, Edmonton, 2018.

The textbook is available in the HSc Bookstore, and also at www.amazon.ca. Rothman's "Epidemiology, an Introduction" or Oleckno's "Epidemiology, Concepts and Methods" are additional reference sources that students find useful.

Additional required reading will be assigned during the course, there will usually be a peer reviewed publication assigned that must be read before the next lecture.

COURSE OBJECTIVES/LEARNING OUTCOMES

The course goal is to provide students with an introduction to epidemiological research methods and to equip students with skills in critical appraisal of the health sciences literature.

Upon completion of the course students will be able to critically appraise published studies from the epidemiological literature. Students will be basic epidemiological data analysis. Critical appraisal requires a comprehensive knowledge of epidemiology, but also requires skill and judgment. Practice is needed to become proficient in critical appraisal, so some of the class time will be devoted to practicing critical appraisal.

A more detailed list of objectives:

1. Define epidemiology and key epidemiological terms.
2. Identify the historical roots of epidemiological reasoning.
3. Describe the importance of epidemiology to health research professionals.
4. State the "fundamental assumption" of epidemiological research.
5. Explain the key concepts of association, proportion, prevalence, and point prevalence.
6. Identify the 2 main sources of error in epidemiologic research:
 - a. random error (sampling variability)
 - b. systematic error (bias)
7. Define critical appraisal.
8. Distinguish the parameter families of prevalence and incidence.
9. Define key parameters within each family.
10. Explain the relationship between proportions and odds.
11. Describe the relationship between prevalence and incidence.
12. Define cumulative incidence and how to calculate it.
13. Define and interpret key specialized measures of mortality:
 - a. cause-specific mortality rate,

- b. age- and sex-specific mortality rate,
 - c. perinatal mortality rate,
 - d. infant mortality rate
 - e. case-fatality rate.
- 14. Define and interpret composite health indicators: QALYs and DALYs.
- 15. Describe the role of these rates and indicators in monitoring population health.
- 16. Identify and differentiate the 2 main sources of error in epidemiologic research: random error and systematic error.
- 17. Describe the relationship between sampling and random error.
- 18. Define confidence intervals and be able to calculate a “Wald” confidence interval for prevalence.
- 19. Describe the relationship between sample size and precision in a prevalence study.
- 20. Differentiate estimation and statistical testing.
- 21. Describe statistical testing and define key related concepts (significant versus nonsignificant tests, type I and type II error, statistical power).
- 22. Explain the influence of sample size on statistical power.
- 23. Define measurement error, and distinguish it from selection error.
- 24. Distinguish among nominal, ordinal, and cardinal data, and continuous and discrete data.
- 25. Define and explain statistical strategies for quantifying classification errors:
 - a. Sensitivity and specificity
 - b. Positive and negative predictive values
 - c. Bayes’ theorem and likelihood ratios
 - d. Reliability
- 26. Define misclassification bias as a type of systematic error.
- 27. Describe sources of misclassification bias in terms of sensitivity and specificity.
- 28. Explain the concept of direction in misclassification bias.
- 29. Describe situations in which misclassification bias may result in over- or underestimation of a descriptive parameter.
- 30. Define selection bias as a type of systematic error arising from participation or nonparticipation in a study.
- 31. Identify sources of selection bias: selection itself, nonconsent, attrition, and missing data
- 32. Describe the mechanism by which defective selection can introduce bias into an estimated frequency such as prevalence.
- 33. Describe the direction of bias in a defective prevalence study in which selection depends on disease status.
- 34. Define confounding.
- 35. Define and describe strategies to adjust for confounding in descriptive studies:
- 36. Stratification
- 37. Direct standardization
- 38. Indirect standardization
- 39. Describe the concept of weighting.
- 40. Define cross-sectional studies.
- 41. Differentiate between the potential descriptive and analytical goals of cross-sectional studies.
- 42. Describe the following measures of association: prevalence differences, prevalence ratios, prevalence odds ratios, and specific types of linear equations.
- 43. Explain how to interpret measures of association calculated from cross-sectional data.

44. List strengths and weaknesses of cross-sectional studies.
45. Define case-control studies.
46. Explain how to interpret measures of association calculated from case-control data.
47. Describe recall bias.
48. Describe the rare disease assumption.
49. Distinguish between induction and latency periods for disease, and describe the dynamic of component causes of disease.
50. Define primary, secondary, and tertiary prevention.
51. List strengths and weaknesses of case-control studies.
52. Distinguish differential and nondifferential misclassification bias.
53. Explain the effect of differential and nondifferential misclassification bias on the interpretation of epidemiological conclusions.
54. Describe blinded outcome assessment.
55. Define prospective cohort studies.
56. Define measures of association in prospective cohort studies: risk ratios, incident rate ratios, and hazard ratios.
57. Explain how to interpret measures of association calculated from prospective cohort studies.
58. List strengths and weaknesses of prospective cohort studies.
59. Define extraneous variables, confounding and effect modification.
60. Describe key procedures to control confounding: standardization, restriction, randomization, and matching, stratification, and regression models.
61. Identify strengths and weaknesses of key procedures to control confounding.
62. Define external validity (generalizability)
63. Explain the key importance of analysis-stage techniques to control confounding.
64. Describe the following aspects of stratified analysis: fit with noncontinuous variables, pooling estimates for better precision, identification of effect modification, detection and adjustment for confounding variables.
65. List the steps of stratified analysis.
66. Describe the advantages of regression modelling over stratified analysis.
67. List the steps of regression modelling.
68. Describe important features of the following study designs: nested case-control studies, case-crossover studies, retrospective cohort studies, randomized controlled trials, case-cohort studies, and ecological studies.
69. Discuss advantages and disadvantages of these designs over other designs.

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/>.

CUT POINTS FOR GRADES			
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			
Grade	Grade Point Value	Percentage Conversion	Graduate Description
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	

Assessment Components: The University policy on grading related matters is outlined in the [2019-2020 Calendar](#).

Assessment Methods	Description	Weight %	Due Date and Time
Group Presentation	After being assigned a group, study design, and disease-exposure relationship, work together to make a case (in 15 minutes) for why your study should be selected. Disease-exposure relationship sections will be composed of 4 groups representing 1 of 4 study designs (prospective cohort, retrospective cohort, case-control, cross-sectional). Students will present online to the instructors and TAs a well-rounded (including advantages and disadvantages) case for why their study (using the assigned design) should be selected over the other 3 designs (groups) in their disease-exposure section.	25%	Week of October 12. Students will be assigned online timeslots during the 09:00-12:00 Tuesday and 09:30-11:30 Thursday course times.
Data Analysis Assignments	The course includes 9 assignments that involve data analysis tasks. The first 8 are each worth 3%, cumulatively amounting to 24% of the total course mark final mark. The final one is worth 6% and will be due on the last day of the term (electronic submission), such that the overall proportion of the final grade from data analysis assignments is 30%.	30%	09:30 on due date (see below for dates)
Final Exam	As an important objective of the course is competency in critical appraisal of epidemiological studies, the final exam will consist of one or more critical appraisal tasks. A detailed grading scheme will be posted on D2L well in advance of the actual exam.	45%	December 4-7 2020 (due at noon, 12:00 on December 7)

ASSESSMENT AND EVALUATION INFORMATION

ATTENDANCE AND PARTICIPATION EXPECTATIONS: Students are expected to attend the lectures, labs and tutorials. They are expected to read the assigned papers before the small group discussions and be prepared to participate in those discussions. The final exam is a take-home exam, but students are expected to work on this independently.

GUIDELINES FOR SUBMITTING ASSIGNMENTS: Assignments are due on the specified date by 9:30 AM in the appropriate D2L dropbox in either word or PDF format. See Timetable below for assignment deadlines



FINAL EXAMINATIONS: This will be a take home exam. The exam materials will be provided on December 4th at 0800H and will be due at noon on December 7th.

EXPECTATIONS FOR WRITING: All materials submitted for evaluation must be written in scientific language.

LATE AND/OR MISSING ASSIGNMENTS: Students who hand in assignments late will be penalized 33% (i.e. will be eligible for up to 2/3rds of the total grade) if they are less than one week late. Assignments that are handed in more than one week (7 calendar days) late will be penalized 66% (i.e. will be eligible for up to 1/3 of the grade). Assignments that are handed in 2 weeks (14 calendar days) or more after the due date will be refused and the students assigned a score of zero for the assignment.

Students may hand in assignments late without penalty under the following circumstances:

- The student has discussed the timelines with course instructor in advance of the due date and the course instructor has granted an extension.

There is a valid health or family emergency such as is discussed under the University regulations for deferral of final examinations. Students may be required to provide the Course Coordinator with such documentation related to illness and/or emergency as is discussed and required in the University regulations pertaining to deferral of final examinations. This information can be found in the University Calendar.

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
September 8th Tuesday 09:00-11:50 Live lecture	• Introduction to the course/marketing scheme etc. • Introduction of the Students and TA's • What is epidemiology? Epidemiological reasoning • Arithmetic Review – practice calculations (Workbook Section 1.1)	Dr. Kirsten Fiest Dr. Miranda Fidler-Benaoudia	Assigned Reading: For next class (a) Chapter 1: What is epidemiology? (b) Chapter 2: Epidemiologic reasoning (c) Chapter 3: Basic measures based on frequencies and rates (d) Critical Appraisal Study Workbook Sections 3.1 & 3.2
September 10th Thursday 09:30-11:30 Live lab	Basics of Stata Tutorial • Entering and inputting data • Generating, recoding, labeling and naming variables • Making tables and graphs	TAs	None
September 15th	• Basic measures based on frequencies and rates	Dr. Miranda Fidler-Benaoudia	Assigned reading: For next class

Tuesday Pre-recorded Lecture 11:00-11:50 Live tutorial	- Practice questions & calculations – frequencies and rates - Random error versus bias - Critical Appraisal Study: Live tutorial at 11:00		(a) Chapter 4: Specialized mortality rates and composite measures (b) Chapter 5: Random error from sampling (c) Critical Appraisal Study: Under the influence... (d) Workbook Section 2.4
September 17th Thursday 09:30-11:30 Live lab	Frequency estimates (prevalence) 1. Estimating proportions 2. Exact 95% confidence intervals for proportions 3. Categorizing a continuous variable	TAs	Assignment 1: Tables & Graphs (due at 9:30AM on D2L dropbox)
September 22nd Tuesday Pre-recorded Lecture 11:00-11:50 Live tutorial	- Specialized mortality rates and composite measures - Random error from sampling - Study Design Classification Examples - Critical Appraisal Study: Live tutorial at 11:00	Dr. Kirsten Fiest	Assigned Reading: For next class (a) Chapter 6: Measurement error that leads to misclassification (b) Chapter 7: Misclassification bias in descriptive studies (c) Critical Appraisal Study (d) Workbook Section 2.2
September 24th Thursday 09:30-11:30 Live lab	Mortality in Alberta vs. Nunavut 1. Crude mortality rates 2. Sex and Age specific mortality rates	TAs	Assignment 2: Prevalence (due at 9:30AM on D2L dropbox)
September 29th Tuesday Pre-recorded Lecture 11:00-11:50 Live tutorial	- Measurement error that leads to misclassification & associated questions - Misclassification bias in descriptive studies & associated questions - Calculating Sensitivity, Specificity, etc... - Critical Appraisal Study: Live tutorial at 11:00	Dr. Miranda Fidler-Benaoudia	Assigned Reading: For next class (a) Chapter 8: Selection error and selection bias in descriptive studies (b) Chapter 9: Confounding in descriptive studies (c) Critical Appraisal Study
October 1st Thursday	Measures of accuracy (Se, Sp, PPV, NPV, LR, AUC)	TAs	Assignment 3:

09:30-11:30 Live lab			Age and Sex Specific Rates (due at 9:30AM on D2L dropbox)
October 6th Tuesday Pre-recorded Lecture 11:00-11:50 Live tutorial	- Review of selected topics (e.g. study design classification) - Selection error and selection bias in descriptive studies - Confounding in descriptive studies - Critical Appraisal Study: Live tutorial at 11:00	Dr. Miranda Fidler-Benaoudia	Assigned Reading: For next class (a) Chapter 10: Cross-sectional studies (b) Chapter 11: Case-control studies (c) Critical appraisal study
October 8th	No lab- time to prep for presentations		None
October 13th Group Assignment	Group presentations (online) - Group 1: 09:00-10:00 - Group 2: 10:00-11:00 - Group 3: 11:00-12:00	Dr. Kirsten Fiest Dr. Miranda Fidler-Benaoudia TAs	Time slots and groups will be assigned in the first week of class
October 15th Group Assignment	Group presentations (online) - Group 4: 09:30-10:30 - Group 5: 10:30-11:30	Dr. Kirsten Fiest Dr. Miranda Fidler-Benaoudia TAs	Time slots and groups will be assigned in the first week of class
October 20th Tuesday Pre-recorded Lecture 11:00-11:50 Live tutorial	- Cross-sectional studies - Case-control studies - Critical Appraisal Study: Live tutorial at 11:00	Dr. Kirsten Fiest	Assigned Reading: For next class (a) Chapter 12: Differential and non-differential misclassification bias (b) Chapter 13: Prospective cohort studies (c) Chapter 14: Confounding and effect modification in analytical studies (d) Critical Appraisal Study
October 22nd Thursday 09:30-11:30 Live lab	Measures of association based on risk differences (RD, AR, AR%, PAR, PAR%) and ratios (PR, RR, OR)	TAs	Assignment 4: Measures of Accuracy (due at 9:30AM on D2L dropbox)
October 27th Tuesday Pre-recorded Lecture 11:00-11:50 Live tutorial	- Differential and non-differential misclassification bias - Prospective cohort studies - Critical Appraisal Study: Live tutorial at 11:00	Dr. Miranda Fidler-Benaoudia	Assigned Reading: For next week (a) Chapter 14: Confounding and effect modification in analytical studies (b) Chapter 15: Stratified analysis and regression modeling in analytical studies (c) Critical Appraisal Study

October 29th Thursday 09:30-11:30 Live lab	Standardization	TAs	Assignment 5: Measures of Association (due at 9:30AM on D2L dropbox)
November 3rd Tuesday Pre-recorded Lecture 11:00-11:50 Live tutorial	- Stratified analysis & regression modeling - Stratified analysis & regression models – some examples in Stata - Other study designs & classification examples - Critical Appraisal Study: Live tutorial at 11:00	TBA	Assigned Reading: For next week (a) Chapter 17: Other measures of association in epidemiology (b) Critical Appraisal Study
November 5th Thursday 09:30-11:30 Live lab	Stratified analysis	TAs	Assignment 6: Standardized Mortality Rates (due at 9:30AM on D2L dropbox)
November 10th	No class-reading break		None
November 12th	No class-reading break		None
November 17th Tuesday Pre-recorded Lecture 11:00-11:50 Live tutorial	- Other measures of association in epidemiology (incl. practice calculations) - Critical Appraisal Study: Live tutorial at 11:00	Dr. Kirsten Fiest	Assigned Reading: For next week (a) Chapter 18: Causal judgement in epidemiology (b) Chapter 19: Steps in critical appraisal (c) Critical Appraisal Study (d) Workbook Section 2.5
November 19th Thursday 09:30-11:30 Live lab	Logistic regression	TAs	Assignment 7: Stratified Analysis (due at 9:30AM on D2L dropbox)
November 24th Tuesday Pre-recorded Lecture	- Causal judgement in epidemiology - Doing critical appraisal in steps	Dr. Miranda Fidler-Benaoudia	Assigned Reading: For next week (a) Critical Appraisal Study (b) Critical Appraisal Study

11:00-11:50 Live tutorial			
November 26th Thursday 09:30-11:30 Live lab	- Time to work on final assignment - TAs to answer questions	TAs	Assignment 8: Logistic Regression (due at 9:30AM on D2L dropbox)
December 1st Tuesday Live Lecture	- Critical Appraisal Study: Large Group - Critical Appraisal Study: Large Group - Q&A for final exam	Dr. Kirsten Fiest	FINAL EXAM: This will be a take home exam. The exam materials will be provided on December 4th at 08:30 and will be due at noon on December 7th at 12:00 noon.
December 3rd Thursday	In five pages or less (double spaced, inclusive of Tables, Figures and references, present an analysis of an association between sex and a health outcome of your choice. Demonstrate the classical progression of univariate, bivariate and multivariable techniques. Structure your manuscript with (1) title page, (2) structured abstract, (3) rationale, (4) methods, (5) results, (6) discussion. Obtain the dataset here: http://libdata.ucalgary.ca/index.php?dir=Microdata/Canadian_Community_Health_Surveys/		Final Assignment due on Dec 3rd (due at 9:30AM on D2L dropbox)

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/. 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) 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/ or email ombuds@ucalgary.ca

Student Union: The SU Vice-President Academic can be reached at (403) 220-3911 or 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; 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.