



**CUMMING SCHOOL OF MEDICINE
GRADUATE COURSE OUTLINE**

COURSE TITLE:			
Course	MDCH 629 Foundations and Practice of Science in Medical Education		
Pre/Co-Requisites	This course is the foundation course for the Medical Education specialization. Open Studies students can apply to participate by contacting Dr. Ellaway (Rachel.ellaway@ucalgary.ca) in advance of the course starting in September.		
Faculty	Cumming School of Medicine, Graduate Science Education		
Instructor Name(s)	Dr. Rachel Ellaway (IoR) Dr. Martina Kelly	Email	Rachel.ellaway@ucalgary.ca
Office Location	Online until further notice	Office Hours	By appointment
Instructor Email Policy			
Telephone No.	403 220 6076 (Dr. Ellaway)		
Class Term, Days	September 8 - December 1, 2020 - Tuesdays		
Class Times	9:00am-11:50am		
Class Location	All classes will be delivered through Zoom – a link to the Zoom meeting will be emailed to students prior to the class each week.		

This course will take place **online** via Desire2Learn (D2L) and Zoom. 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 an alternative participation activity.

COURSE INFORMATION/DESCRIPTION OF THE COURSE
This single semester course sets out the foundational academic concepts in the science of medical education. The course provides an overview of the philosophy of science, history of medical education and medical education scholarship along with fundamental concepts in medical education scholarship such as ethics and professionalism, critical appraisal and academic leadership.
LEARNING RESOURCES/REQUIRED READING

Godfrey-Smith P. Theory and Reality: An Introduction to the Philosophy of Science. University of Chicago Press; 2003.

COURSE OBJECTIVES/LEARNING OUTCOMES

Participants in this course will learn to:

1. Apply a solid grounding in the philosophy of science in their future studies and scholarly activity
2. Situate their work within broader systems and traditions of medical education scholarship
3. Critically appraise research and other artefacts from across the field of medical education
4. Understand and model academic professional standards in medical education scholarship

Communication

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 sent by instructors. Only your @ucalgary.ca e-mail address should be used. 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 and Zoom access. If you need help accessing or using D2L, please visit the Desire2Learn resource page for students: <http://elearn.ucalgary.ca/d2l-student/>. For more information on how to get the most out of your zoom sessions visit: <https://elearn.ucalgary.ca/guidelines-for-zoom/>.

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
Presentation	A 30-minute presentation to the class on a medical education topic from the perspective of a particular paradigm. The goal is to present a critical and balanced view of the chosen topic. This should include how the topic has developed, key papers in its development and critique, and a review of its strengths and weaknesses. The presentation should not just present what others have said or thought, students need to make a cogent argument around their own position relative to the topic. Students may use whatever means they wish to present their material as long as it will function in a University small group room. The presentation should be 20-25 minutes max to allow time for discussion at the end. Marks will be given on: the selection of an appropriate topic, the literature review and conceptual framing of the topic, the critique presented, audience engagement and discussion, and the quality of the presentation.	20%.	Scheduled in the second half of the course in discussion with the course coordinator.
Written	An essay describing how a particular topic in medical education scholarship has developed and changed over time. Students are asked to select a topic that has some history (i.e. not a topic that has only recently emerged). Marks will be awarded based on: 1. Topic (20% of the mark) What is the topic? Why is it significant? What has been the historical development of the topic? What is the current state of this topic with respect to medical education and medical education research?	30%.	Due 3 rd November 2020 9am

	<p>2. Literature review (40% of the mark) How does this topic appear in the literature? How has the topic and the research in to the topic developed and changed over the years? What are the strengths and weaknesses of the literature in and around this topic? What have been the key studies in advancing thinking around this topic? How has the topic been researched? How might this research have been more effective? What is the current state of knowledge on the topic?</p> <p>3. Future research and implications for medical education research (30% of the mark) Where is this topic going? What are the current challenges and opportunities with thee regard to the topic? What are the implications for future research and education? How would you like to see the topic develop?</p> <p>4. References, Flow, Style & Composition (10% of the mark) Has the literature been adequately and appropriately cited and referenced? Is the writing clear and concise? Is the argument logically constructed and well-argued?</p>		
Written	<p>An essay taking a critical perspective on a topic in contemporary medical education science. Students are asked to select a topic that has been debated or that has differing perspectives on it.</p> <p>Marks will be awarded based on:</p> <ol style="list-style-type: none"> 1. Topic (20% of the mark) What is the topic? Why is it significant? What is the current state of this topic with respect to medical education and medical education research? 2. Critical perspective (40% of the mark) What think are the philosophical underpinnings of the topic? What theory or theories apply to this issue? What is your view on the topic? What are the opposing views on the issue? What are the strengths and weaknesses of different perspectives? 3. Implications for medical education science (30% of the mark) What are the implications for contemporary medical education and medical education science? What are the theoretical bases for your arguments? How might the topic be resolved or advanced? 4. References, Flow, Style & Composition (10% of the mark) Has the literature been adequately and appropriately cited and referenced? Is the writing clear and concise? Is the argument logically constructed and well-argued? 	30%.	Due 17 th November 2020 9am
Written	<p>Written conceptual framing for a research study and the connection between the relevant problem or issue being explored, the background literature, and the development of robust research questions.</p> <p>Marks will be awarded based on:</p> <ol style="list-style-type: none"> 1. Selection of an issue in medical education that warrants investigation (5%) 2. Literature review identifying what is and is not known about the issue under consideration (30%) 3. Defining the gap the research study will explore and how it will fill it (25%) 	20%.	Due 24 th November 2020 9am

	4. Framing of the research question(s) and objectives (30%)		
	5. Flow, style, and composition of the proposal (10%)		

ASSESSMENT AND EVALUATION INFORMATION
<p>ATTENDANCE AND PARTICIPATION EXPECTATIONS: attendance at every class is not mandatory but it is highly recommended</p> <p>GUIDELINES FOR SUBMITTING ASSIGNMENTS: submit by email to rachel.ellaway@ucalgary.ca and get confirmation of receipt</p> <p>FINAL EXAMINATIONS: None</p> <p>EXPECTATIONS FOR WRITING:</p> <p>LATE AND/OR MISSING ASSIGNMENTS: Late assignments will <u>not</u> be accepted.</p> <p>Is a passing grade on a particular component essential to pass the course as a whole? No.</p>

COURSE TIMETABLE		
Course Schedule Date	Topic & Reading	Assignments, Due Dates & Times
Week 1 (8 Sep)	Philosophy of science 101. Topics: Philosophical basis of science, ontology and epistemology, objectivism and subjectivism, positivism and empiricism, systems and emergence, theory, deduction and induction, falsifiability and truth, value and evaluation, measurement.	
Week 2 (15 Sep)	Philosophy of science 102. Topics: Paradigms, critical theory, dialectics, post-colonialism, gender, technology, critique, modernism and postmodernism, metanarratives, legitimation and power, debate and rhetoric.	
Week 3 (22 Sep)	Philosophy of science 103. Topics: being a researcher, observers and observation, bias and errors, representation, reflexivity and motive, psychology of science, science as a collective, field, habitus, and doxa.	
Week 4 (29 Sep)	History of medical education. Topics: historical development, key events and changes, key thinkers and leaders, how medical education changes and develops, scholarship of medical education history and historicity.	
Week 5 (6 Oct)	History of medical education scholarship. Topics: the development of medical education as field. Historical trends and themes in education and medicine and how they interact. Current views of the field in terms of its historical roots.	Student presentations
Week 6 (13 Oct)	Critical appraisal in medical education research. Topics: the shape and expression of the medical education literature how to search the literature, how to read a paper, critical appraisal of medical education scholarship, scholarship of literature synthesis and review.	Student presentations

Week 7 (20 Oct)	Inquiry. Topics: progression of inquiry, ontology and epistemology reprised, formulating and refining research questions, inductive and deductive approaches to inquiry, alternative approaches to exploring similar areas and topics.	Student presentations
Week 8 (27 Oct)	Methodology and methods. Topics: selecting a methodological strategy, a repertoire of methodologies and their implications, selecting tactical methods within a methodological frame, theoretical borrowing of methods, triangulation.	Student presentations
Week 9 (3 Nov)	Ethics and professionalism. Topics: principles of morals and ethics, research ethics, REBs and TCPS, professionalism in medicine and education, an outline of professionalism in medical education scholarship, equity and justice.	Essay 1 due 3 rd Nov by 9am
Fall break		
Week 10 (17 Nov)	Social contract, social responsibility, social accountability. Topics: the social contract (Rousseau to Cruess), social responsibility and social accountability (Osler to Boelen), mission and scholarship, moral agency in scholarship.	
Week 11 (24 Nov)	Local and international perspectives. Topics: medical education and scholarship around the world, connection between education, research and healthcare systems, IMGs and CSAs, cultural competence, scholarship of context, rural and remote.	Essay 2 due 24 th Nov by 9am
Week 12 (1 Dec)	Academic policy, academic leadership. Topics: systems of higher and professional education, accreditation, approvals, due process, professional development, admissions, progression, remediation, exclusion, discipline. Medical education and medical education scholarship as social processes, roles and styles of participation, leaders and leadership, modeling, and mentoring in medical education.	Conceptual framing for a research study due 1 st Dec by 9am

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.