



CUMMING SCHOOL OF MEDICINE  
GRADUATE COURSE OUTLINE

COURSE TITLE:			
<b>Course</b>	MDCH 730: Doctoral Seminar in Medical Education Research		
<b>Pre/Co-Requisites</b>	Participants need to be enrolled in the Medical Education specialization of the CHS Graduate Education Program. Open Studies students may be considered on a case-by-case basis and would need to be able to undertake both semesters.		
<b>Faculty</b>	Cumming School of Medicine, Graduate Science Education		
<b>Instructor Name(s)</b>	Dr. Rachel Ellaway (IoR) Dr. Kent Hecker	<b>Email</b>	Rachel.ellaway@ucalgary.ca kghecker@ucalgary.ca
<b>Office Location</b>	Online until further notice	<b>Office Hours</b>	By appointment
<b>Instructor Email Policy</b>			
<b>Telephone No.</b>	403 220 6076 (Dr. Ellaway) 403 220 8499 (Dr. Hecker)		
<b>Class Term, Days</b>	September 8-December 1, 2020 - Tuesdays January 12 – April 6, 2021- Tuesdays		
<b>Class Times</b>	13:00 pm - 15:50 pm		
<b>Class Location</b>	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 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 explore whether an alternative participation activity can be arranged.

COURSE INFORMATION/DESCRIPTION OF THE COURSE
This is a 6 unit (1.0 full course equivalent) doctoral seminar in Medical Education Research). Running for 26

weeks across the Fall and Winter terms, this course immerses students in the field of medical education research. The course considers:

- key papers, studies, thinkers, models, frameworks, and trends in medical education research
- the nature of contemporary medical education and the challenges and opportunities of conducting research in this area
- the kinds of research that can be and are being undertaken in the field
- the moral and ethical basis of medical education research

As a discussion course, the specifics vary from year to year, both in response to the interests of the students taking part, and in response to broader issues and developments in the field of medical education. The course combines seminars and discussions with independent reading and writing activities.

#### **LEARNING RESOURCES/REQUIRED READING**

1. Walsh K (ed) Oxford Textbook of Medical Education. OUP: 2013.
2. Cleland J, Durning SJ. Researching Medical Education. Wiley; 2015.

#### **COURSE OBJECTIVES/LEARNING OUTCOMES**

On completion of this course participants will be able to:

1. Participate in academic debate around key issues in medical education scholarship
2. Situate their interests and work in medical education in the context of medical education scholarship
3. Be able to design, and conduct research into topics in medical education

#### **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 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/>.

<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> .			
There are two presentation and two written assignments in each of the two semesters of this course. As this is a single two-semester course, final grades are given at the end of the second semester.			
<i>Methods</i>	<i>Description</i>	<i>Weight %</i>	<i>Due Date and Time</i>
<b>Fall Semester</b>			
<i>Presentations</i>	<p><b>A 30-minute presentation to the class on a key topic in medical education scholarship</b></p> <p>The goal is to present a critical and balanced view of the chosen topic. This should include how the topic has developed, the key steps in its development, 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.</p> <p>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.</p>	8%	Given in class – time to be scheduled with the instructor
	<p><b>A 30-minute in-depth critical appraisal of a paper in medical education</b></p>	8%	Given in class – time to be

	<p>Each student should select a substantial paper (i.e. not an editorial or commentary etc.) and present an analysis of the study design and execution, the findings and discussion, and the overall strengths, weaknesses, and significance of the paper. Students should also consider how the study or the reporting of the study might have been done differently.</p> <p>Marks will be given on: the selection of an appropriate paper, the conceptual framing of the critique, the depth of analysis, the conclusions drawn, and the quality of the presentation.</p>		scheduled with the instructor
Written assignments	<p><b>Literature review and synthesis on a selected topic in medical education</b></p> <p>Students should identify a topic (different to those covered in the presentations) and conduct a literature review on that topic. The topic should be discrete enough that the literature is not too broad but substantial enough that there is sufficient material to draw on. The review should include at least 15 papers on the topic.</p> <p>Marks will be given on: the selection of an appropriate topic, how papers were identified, how the papers were synthesized, the synthesis of the findings, the significance of the synthesis, the strengths and weaknesses of the papers reviewed, and the logical argument and clarity of writing.</p>	17%	9am on 27 October 2020
	<p><b>Essay exploring a contested issue in medical education</b></p> <p>Students should identify an issue where there are diverging opinions, positions, or arguments. These different positions should be identified, critiqued and compared, and the student's own position within this debate should be clearly articulated and defended.</p> <p>Marks will be given on: the selection of an appropriate topic, the identification and critique of the differing perspectives, the exploration of the implications of these perspectives, the student's own positioning within this argument, and the logical argument and clarity of writing.</p>	17%	9am on 17 November 2020
<b>Winter Semester</b>			
Presentations	<p><b>A 30-minute presentation on the student's personal orientations to theory in medical education scholarship</b></p> <p>Students are asked to reflect on their own emerging research practices and the theories and theoretical positions that they are basing their work on, the implications of their theoretical stance, and viable alternatives.</p> <p>Marks will be given on: the depth of argument presented, the articulation and comparison of different theoretical positions, the reflexive critique presented, audience engagement and discussion, and the quality of the presentation.</p>	8%	Given in class – time to be scheduled with the instructor
	<p><b>A 30-minute presentation on the future direction of an area of medical education scholarship</b></p> <p>Students are asked to select a topic in medical education scholarship, to map out how it has developed to the present day, and then to argue for how it may develop in the future. Students are not expected to accurately predict the future, only to provide a coherent and defensible argument about how things might develop. Factors within medical education, within the philosophy of science, and in the broader healthcare and societal context should all be considered.</p>	8%	Given in class – time to be scheduled with the instructor

	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.		
Written assignments	<p><b>Essay on the published work of a leading scholar in medical education</b></p> <p>Students should identify a scholar who has published a body of research over time and who has made other contributions to medical education scholarship. A critical history of this scholar's work and other contributions should be presented setting out the areas they have been active in, their theoretical and methodological positions, and their overall contributions to the field.</p> <p>Marks will be given on: the selection of an appropriate scholar, the appraisal of their work and contributions, the analysis of their positions and contributions, and the logical argument and clarity of writing.</p>	17%	9am on 9 <sup>th</sup> March 2021
	<p><b>Research proposal</b></p> <p>Students should present a fully-developed research proposal for a program of research that comprises at least 3 sub-studies. This can be the proposal for a student's PhD research studies but does not have to be. This proposal should focus on the conceptual framing of the overall study and the connection between the relevant problem or issue being explored, the background literature, the design of sub-studies and their methodological approaches, ethics issues, timelines, budgets, and projected outcomes.</p> <p>Marks will be given on: articulation of a problem area, the identification of research questions and the design of sub-studies to address them, attention to detail and logical flow, consideration of ethical, logistical and resource issues, and clarity of writing.</p>	17%	9am on 6 <sup>th</sup> April 2021

#### ASSESSMENT AND EVALUATION INFORMATION

**ATTENDANCE AND PARTICIPATION EXPECTATIONS:** attendance at every class is not mandatory but it is highly recommended. It is recommended that students discuss the topics for their assignments with the course tutor.

**GUIDELINES FOR SUBMITTING ASSIGNMENTS:** Presentations are given in-class at a time agreed with the course tutor. Written assignments should be submitted by email before the respective deadline to [rachel.ellaway@ucalgary.ca](mailto:rachel.ellaway@ucalgary.ca) and the student should ensure they have confirmation of receipt for each submission.

**FINAL EXAMINATIONS:** None.

**EXPECTATIONS FOR WRITING:** Note that this is a PhD-level course and students are expected to perform at a PhD level throughout. This includes contributing to class discussions, helping to shape the course, and demonstrating autonomy and self-direction in learning and professional development.

**LATE AND/OR MISSING ASSIGNMENTS:** Late assignments will not be accepted.

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

<b>COURSE TIMETABLE</b>			
<b>Course Schedule Date</b>	<b>Topic &amp; Reading</b>	<b>Instructor</b>	<b>Assignments, Due Dates &amp; Times</b>
<b>Fall Semester</b>			
<b>Week 1 (8 Sep)</b>	<p><b>Introduction to medical education</b></p> <p>Broad overview of medical education and medical education scholarship. Systems of higher and professional education, accreditation, approvals, due process, professional development, admissions, progression, remediation, exclusion, discipline.</p> <ul style="list-style-type: none"> <li>• Medical Education – Waugh D, Bailey PG - <a href="http://www.thecanadianencyclopedia.ca/en/article/medical-education/">www.thecanadianencyclopedia.ca/en/article/medical-education/</a></li> </ul>	Dr. Ellaway	
<b>Week 2 (15 Sep)</b>	<p><b>History of medical education and medical education scholarship</b></p> <p>History of medical education; key events and changes, key thinkers and leaders, how medical education changes and develops, scholarship of medical education history and historicity.</p> <ul style="list-style-type: none"> <li>• Hodges B. The many and conflicting histories of medical education in Canada and the USA: an introduction to the paradigm wars. Med Educ. 2005;39(6):613-21.</li> <li>• Cooke M, Irby DM, Sullivan W, Ludmerer KM. American medical education 100 years after the Flexner report. N Engl J Med. 2006;355(13):1339-44.</li> <li>• Norman G. Fifty years of medical education research: waves of migration. Med Educ. 2011;45(8):785-91.</li> </ul>	Dr. Ellaway	
<b>Week 3 (22 Sep)</b>	<p><b>The Canadian landscape of medical education</b></p> <p>Contemporary issues in Canadian medical education: CanMEDS, CBME, social missions and accountability, economics, and sociopolitical influences and drivers.</p> <ul style="list-style-type: none"> <li>• CanMEDS 2015 - <a href="http://canmeds.royalcollege.ca/uploads/en/framework/CanMEDS%202015%20Framework_EN_Reduced.pdf">http://canmeds.royalcollege.ca/uploads/en/framework/CanMEDS%202015%20Framework_EN_Reduced.pdf</a></li> <li>• CAPER Annual Census of Post-M.D. Trainees 2015 - <a href="https://caper.ca/~assets/documents/pdf_2015_16_CAPER_Census.pdf">https://caper.ca/~assets/documents/pdf_2015_16_CAPER_Census.pdf</a></li> <li>• Future of Medical Education in Canada (FMEC) - <a href="https://afmc.ca/medical-education/future-medical-education-canada-fmec">https://afmc.ca/medical-education/future-medical-education-canada-fmec</a></li> </ul>	Dr. Ellaway	
<b>Week 4 (29 Sep)</b>	<p><b>International perspectives on medical education</b></p> <p>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, the social contract (Rousseau to Cruess), social responsibility and social accountability (Osler to Boelen), mission and scholarship, moral agency in scholarship.</p> <ul style="list-style-type: none"> <li>• Boelen C, Heck J. 1995. Defining and measuring the social accountability of medical schools. Geneva: World Health Organization. Online at <a href="http://whqlibdoc.who.int/hq/1995/WHO_HRH_95.7_fre.pdf">http://whqlibdoc.who.int/hq/1995/WHO_HRH_95.7_fre.pdf</a></li> </ul>	Dr. Ellaway	
No scheduled class - self-study			

	<ul style="list-style-type: none"> <li>• Cruess RL, Cruess SR. (2008). Expectations and obligations: professionalism and medicine's social contract with society. <i>Perspectives in Biology and Medicine</i>, 51(4), 579-598.</li> </ul> <p>General perusal of the following websites:</p> <ul style="list-style-type: none"> <li>• FAIMER - <a href="http://www.faimer.org">www.faimer.org</a></li> <li>• World Federation for Medical Education - <a href="http://wfme.org">http://wfme.org</a></li> <li>• World Directory of Medical Schools - <a href="http://www.wdoms.org">www.wdoms.org</a></li> </ul>		
<b>Week 5 (6 Oct)</b>	<p><b>Philosophical basis of medical education scholarship</b></p> <p>Philosophy and medical education scholarship approaches to scholarship: meta-scholarship, evaluation, translation, research, innovation, conceptual, synthesis.</p> <ul style="list-style-type: none"> <li>• Ronaghy H. Philosophy of Medical Education. <i>J. Adv Med&amp;Prof</i>. 2013;1(2):43-45.</li> <li>• Bleakley A, Cleland J. Chapter 8 Sticking with messy realities: how 'thinking with complexity' can inform healthcare education research 81-92. In: Cleland and Durning, <i>Researching Medical Education</i>, 2015.</li> </ul>	Dr. Ellaway	
<b>Week 6 (13 Oct)</b>	<p><b>Medical education as a field</b></p> <p>Major paradigms, trends, and thinkers in medical education scholarship, the development of medical education as field. Intersectionality of medical education scholarship with other disciplines and fields.</p> <ul style="list-style-type: none"> <li>• Regehr G. Trends in medical education research. <i>Acad Med</i>. 2004;79(10):939-47.</li> <li>• Traynor R, Eva KW. The evolving field of medical education research. <i>Biochem Mol Biol Educ</i>. 2010;38(4):211-5.</li> <li>• Mann K, MacLeod A. Chapter 6 Constructivism: learning theories and approaches to research 51-66. In: Cleland and Durning, <i>Researching Medical Education</i>, 2015.</li> </ul>	Dr. Ellaway	
<b>Week 7 (20 Oct)</b>	<p><b>Medical education evidence</b></p> <p>What constitutes evidence, what evidence base for medical education there is, how evidence is expressed and used in medical education. What is evidence, critical appraisal and evidence-based practice, 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.</p> <ul style="list-style-type: none"> <li>• Cook DA, Levinson AJ, Garside S. Method and reporting quality in health professions education research: a systematic review. <i>Med Educ</i>. 2011;45(3):227-38.</li> <li>• Wong G. Chapter 3 Literature reviews: who is the audience? 25-34. In: Cleland and Durning, <i>Researching Medical Education</i>, 2015.</li> <li>• Van Der Vleuten C, Dolmans D, A. Scherpbier J. 2000. The need for evidence in education, <i>Med Teach</i>, 22(3);246-250.</li> </ul>	Dr. Hecker	
<b>Week 8 (27 Oct)</b>	<p><b>Theories and questions</b></p>	Dr. Ellaway	

	<p>Kinds of theory, uses of theory, theory and empiricism, progression of inquiry, observation, description, models, frameworks, theories, hypotheses, research questions, writing good questions.</p> <ul style="list-style-type: none"> <li>• McMillan W. Chapter 2 Theory in healthcare education research: the importance of worldview 15-24. In: Cleland and Durning, Researching Medical Education, 2015.</li> <li>• Bezuidenhout J, van Schalkwyk S. Chapter 4 Developing the research question: setting the course for your research travels 35-42. In: Cleland and Durning, Researching Medical Education, 2015.</li> </ul>		
<b>Week 9 (3 Nov)</b>	<p><b>Methodologies</b></p> <p>Selecting a methodological strategy, a repertoire of methodologies and their implications.</p> <ul style="list-style-type: none"> <li>• Cleland J. Chapter 1 Exploring versus measuring: considering the fundamental differences between qualitative and quantitative research 3-14. In: Cleland and Durning, Researching Medical Education, 2015.</li> <li>• Varpio L, Martimianakis MA, Mylopoulos M. Chapter 21 Qualitative research methodologies: embracing methodological borrowing shifting and importing 245-258. In: Cleland and Durning, Researching Medical Education, 2015.</li> </ul> <p>Optional readings:</p> <ul style="list-style-type: none"> <li>• Billett S, Sweet L. Chapter 11 Participatory practices at work: Understanding and appraising healthcare students' learning through workplace experiences 117-128. In: Cleland and Durning, Researching Medical Education, 2015.</li> <li>• Monrouxe LV, Rees CE. Chapter 12 Theoretical perspectives on identity: researching identities in healthcare education 129-140. In: Cleland and Durning, Researching Medical Education, 2015.</li> <li>• Artino AR, Brydges R, Gruppen LD. Chapter 14 Self-regulated learning in healthcare profession education: theoretical perspectives and research methods 155-166. In: Cleland and Durning, Researching Medical Education, 2015.</li> </ul>	Dr. Ellaway and Dr. Hecker	
<b>Fall break</b>			
<b>Week 10 (17 Nov)</b>	<p><b>Methods</b></p> <p>Methods - selecting tactical methods within a methodological frame, theoretical borrowing of methods, triangulation.</p> <ul style="list-style-type: none"> <li>• Stansfield RB, Gruppen L. Chapter 5 Power analyses: planning conducting and evaluating education research 43-50. In: Cleland and Durning, Researching Medical Education, 2015.</li> <li>• Johnston J, Dornan T. Chapter 9 Activity theory: mediating research in medical education 93-104. In: Cleland and Durning, Researching Medical Education, 2015.</li> <li>• Sullivan GM. Getting Off the "Gold Standard": Randomized Controlled Trials and Education Research. J Grad Med Educ. 2011; 3(3): 285-289.</li> </ul>	Dr. Ellaway and Dr. Hecker	



	<ul style="list-style-type: none"> <li>Tavakol M, Sandars J. Quantitative and qualitative methods in medical education research: AMEE Guide No 90: Part II. Med Teach. 2014. 36(10); 838-848.</li> </ul>		
<b>Week 11 (24 Nov)</b>	<p><b>Data</b></p> <p>Data: what is it, what do you need, how do you get it, what can you do with it?</p> <ul style="list-style-type: none"> <li>Fenwick T, Nimmo GR. Chapter 7 Making visible what matters: sociomaterial approaches for research and practice in healthcare education 67-80. In: Cleland and Durning, Researching Medical Education, 2015.</li> <li>Norman G. When I say ... reliability. Med Educ. 2014;48(10):946-7.</li> <li>Cook DA. When I say... validity. Med Educ. 2014;48(10):948-9.</li> <li>Thistlethwaite J. When I say ... realism. Med Educ. 2015;49(5):459-460</li> </ul>	Dr. Ellaway and Dr. Hecker	
<b>Week 12 (1 Dec)</b>	<p><b>Instruments</b></p> <p>Designing, testing, validating and using research instruments: surveys, scripts, tasks, observation.</p> <p>Reprise of semester 1, preparation for semester 2.</p> <ul style="list-style-type: none"> <li>Artino AR, La Rochelle JS, Dezee KJ, Gehlbach H. Developing questionnaires for educational research: AMEE Guide No. 87. Med Teach. 2014; 36(6): 463-474.</li> <li>Cook DA, Reed DA. Appraising the quality of medical education research methods: the Medical Education Research Study Quality Instrument and the Newcastle-Ottawa Scale-Education. Acad Med. 2015;90(8):1067-76.</li> </ul>	Dr. Ellaway and Dr. Hecker	
<b>Christmas break</b>			
<b>Winter Semester</b>			
<b>Week 13 (Jan 12)</b>	<p><b>How to get a PhD</b></p> <p>The steps, the journey, supervision, personal and professional development, managing the process, challenges and problem-solving, making the most of the experience.</p> <ul style="list-style-type: none"> <li>Phillips EM, Pugh DS How to get a PhD: A handbook for students and their supervisors. Open University Press; 5th ed. 2010. This valuable how to guide is available as an ebook through the University of Calgary Library.</li> </ul> <p>Note that it is not necessary to have read the entire book for this session but it is a recommended resource throughout your PhD studies.</p>	Dr. Ellaway	
<b>Week 14 (Jan 19)</b>	<p><b>Academic writing</b></p> <p>Techniques, approaches, discipline, styles. Writing a research proposal at a PhD level.</p> <ul style="list-style-type: none"> <li>Lingard L, Driessen E. Chapter 22 How to tell compelling scientific stories: tips for artful use of the research manuscript and presentation genres 259-268. In: Cleland and Durning, Researching Medical Education, 2015.</li> <li>Lingard L. Joining a conversation: the problem/gap/hook heuristic. Perspect Med Educ. 2015;4(5):252-3. Why Academics Have a Hard Time</li> </ul>	Dr. Ellaway	

	<p>Writing Good Grant Proposals - Robert Porter - Journal of Research Administration; Fall 2007; 38, 2.</p> <ul style="list-style-type: none"> <li>How to write your research proposal - <a href="http://www.ed.ac.uk/files/imports/fileManager/HowToWriteProposal090415.pdf">http://www.ed.ac.uk/files/imports/fileManager/HowToWriteProposal090415.pdf</a></li> </ul>		
<b>Week 15 (Jan 26)</b>	<p><b>Ethics</b></p> <p>Ethical concerns 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.</p> <ul style="list-style-type: none"> <li>TCPS 2 (2014) Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans - <a href="http://www.pre.ethics.gc.ca/pdf/eng/tcps2-2014/TCPS_2_FINAL_Web.pdf">http://www.pre.ethics.gc.ca/pdf/eng/tcps2-2014/TCPS_2_FINAL_Web.pdf</a></li> <li>ten Cate O. Why the ethics of medical education research differs from that of medical research. Med Educ. 2009;43(7):608-10.</li> </ul>	Dr. Ellaway	
<b>Week 16 (Feb 2)</b>	<p><b>Scholarship</b></p> <p>What is scholarship, how do we understand it, how can it be developed, appraised, used?</p> <ul style="list-style-type: none"> <li>Boyer EL. 1990. Scholarship reconsidered: Priorities of the professoriate. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching.</li> <li>Glassick CE. Boyer's expanded definitions of scholarship, the standards for assessing scholarship, and the elusiveness of the scholarship of teaching. Acad Med. 2000;75(9):877-80.</li> <li>Ellaway RH, Topps D. 2017. METRICS: a pattern language of scholarship in medical education. MedEdPublish; 1305 - online at <a href="https://www.mededpublish.org/manuscripts/1305">https://www.mededpublish.org/manuscripts/1305</a></li> </ul>	Dr. Ellaway and Dr. Hecker	
<b>Week 17 (Feb 9)</b>	<p><b>Critical thinking and reflexivity</b></p> <p>Critique, critical theory, dialectics, postcolonialism, gender, technology, critique, modernism and postmodernism, metanarratives, legitimation and power, debate and rhetoric.</p> <ul style="list-style-type: none"> <li>Hodges BD. When I say ... critical theory. Med Educ. 2014;48(11):1043-4.</li> <li>Ritz SA, Beatty K, Ellaway RH. Accounting for social accountability: developing critiques of social accountability within medical education. Educ Health (Abingdon). 2014;27(2):152-7.</li> <li>Taylor JS. Confronting "culture" in medicine's "culture of no culture". Acad Med. 2003;78(6):555-9.</li> </ul>	Dr. Ellaway	
<b>Reading week</b>			
<b>Week 18 (Feb 23)</b>	<p><b>Dissemination, communication, translation, engagement</b></p> <p>Translation and dissemination of research findings.</p> <ul style="list-style-type: none"> <li>Santen SA, Deiorio NM, Gruppen LD. Medical education research in the context of translational science. Acad Emerg Med. 2012;19(12):1323-7.</li> </ul>	Dr. Ellaway	

	<ul style="list-style-type: none"> <li>Thomas A, Bussières A. Knowledge Translation and Implementation Science in Health Professions Education: Time for Clarity? Acad Med. 2016;91(12):e20.</li> </ul>		
<b>Week 19 (Mar 2)</b>	<p><b>Academic metrics</b></p> <p>Measuring and reporting on academic activity and productivity, bibliometrics, CVs.</p> <ul style="list-style-type: none"> <li>Doja A, Horsley T, Sampson M. Productivity in medical education research: an examination of countries of origin. BMC Med Educ. 2014; 14: 243.</li> <li>University of Waterloo Working Group on Bibliometrics, Winter 2016. White Paper on Bibliometrics, Measuring Research Outputs through Bibliometrics, Waterloo, Ontario: University of Waterloo. Online at <a href="https://uwspace.uwaterloo.ca/bitstream/handle/10012/10323/Bibliometrics%20White%20Paper%202016%20Final_March2016.pdf?sequence=4&amp;isAllowed=y">https://uwspace.uwaterloo.ca/bitstream/handle/10012/10323/Bibliometrics%20White%20Paper%202016%20Final_March2016.pdf?sequence=4&amp;isAllowed=y</a></li> <li>Dr. Ellaway's Google Scholar page: <a href="https://scholar.google.ca/citations?user=pEo2ahwAAAAJ&amp;hl=en">https://scholar.google.ca/citations?user=pEo2ahwAAAAJ&amp;hl=en</a></li> </ul>	Dr. Ellaway	
<b>Week 20 (Mar 9)</b>	<p><b>Being a medical education researcher</b></p> <p>Being a researcher, observers and observation, bias and errors, representation, reflexivity and motive, psychology of science, science as a collective, field, habitus, and doxa. The roles and responsibilities of the scholar: progression of inquiry, ontology and epistemology revisited, formulating and refining research questions, inductive and deductive approaches to inquiry, alternative approaches to exploring similar areas and topics.</p> <ul style="list-style-type: none"> <li>Regehr G. It's NOT rocket science: rethinking our metaphors for research in health professions education. Med Educ. 2010;44(1):31-9.</li> <li>Frenk J, Chen L, Bhutta ZA, et al. 2010. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. The Lancet, 376(9756), 1923 – 1958.</li> <li>Taylor D, Gibbs T. Chapter 24 Programmatic research: building and sustaining capacity 281-288. In: Cleland and Durning, Researching Medical Education, 2015.</li> </ul>	Dr. Ellaway and Dr. Hecker	
<b>Week 21 (Mar 16)</b>	<p><b>Leadership and other professional roles</b></p> <p>Academic leadership: medical education and medical education scholarship as social processes, roles and styles of participation, leaders and leadership, modeling, and mentoring in medical education. CanMEDS and education scholarship.</p> <ul style="list-style-type: none"> <li>McKimm J, O'Sullivan H. Chapter 23 Leadership management and mentoring: applying theory to practice 269-280. In: Cleland and Durning, Researching Medical Education, 2015.</li> <li>Ellaway RH. 2016. CanMEDS is a theory. Advances in Health Science Education, 21(5):915-917.</li> </ul>	Dr. Ellaway	
<b>Week 22 (Mar 23)</b>	<p><b>Key topics 1: measurement</b></p> <p>Key papers, studies, thinkers, models, frameworks, and trends 1: measurement, psychometrics, experiments, proofs.</p>	Dr. Hecker	

	<ul style="list-style-type: none"> <li>Norcini JJ, Swanson DB, Grosso LJ, Webster GD. Reliability, validity and efficiency of multiple choice question and patient management problem item formats in assessment of clinical competence. Med Educ. 1985;19(3):238-47.</li> <li>Schuwirth LW, van der Vleuten CP. A plea for new psychometric models in educational assessment. Med Educ. 2006;40(4):296-300.</li> <li>Hodges B. Assessment in the post-psychometric era: learning to love the subjective and collective. Med Teach. 2013;35(7):564-8.</li> </ul>		
<b>Week 23 (Mar 30)</b>	<p><b>Key topics 2: exploration and explanation</b></p> <p>Key papers, studies, thinkers, models, frameworks, and trends 2: exploration, explanation, description.</p> <ul style="list-style-type: none"> <li>van Merriënboer JGG, Dolmans DHJM. Chapter 17 Research on instructional design in the health sciences: from taxonomies of learning to whole-task models 193-206. In: Cleland and Durning, Researching Medical Education, 2015.</li> <li>Torre D, Durning SJ. Chapter 10 Social cognitive theory: thinking and learning in social settings 105-116. In: Cleland and Durning, Researching Medical Education, 2015.</li> <li>Wong G, Greenhalgh T, Westhorp G, Pawson R. Realist methods in medical education research: what are they and what can they contribute? Med Educ. 2012;46(1):89-96.</li> </ul>	Dr. Ellaway	
<b>Week 24 (Mar 30)</b>	<p><b>Key topics 3: systems</b></p> <p>Key papers, studies, thinkers, models, frameworks, and trends 3: systems, models, frames of thinking.</p> <ul style="list-style-type: none"> <li>Frank JR, Snell LS, Cate OT, et al. Competency-based medical education: theory to practice. Medical Teacher, 2010;32(8):638-45.</li> <li>Nicholson S, Cleland J. Chapter 20 Reframing research on widening participation in medical education: using theory to inform practice 231-244. In: Cleland and Durning, Researching Medical Education, 2015.</li> <li>Patterson F, Born MK, Oostrom JK, Prescott-Clements L. Chapter 15 What are values and how can we assess them? Implications for values-based recruitment in healthcare 167-180. In: Cleland and Durning, Researching Medical Education, 2015.</li> </ul>	Dr. Ellaway	
<b>Week 25 (Apr 6)</b>	<p><b>Capstone and summary</b></p> <p>What we have covered, where are we now, where do you go from here? Becoming an independent scholar.</p>	Dr. Ellaway and Dr. Hecker	

### 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 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.