



The course will be based on lecture and there will be no tutorial conferences. To succeed in the course, students should read the assigned readings for each week coming to class. Every topic will also have optional readings; these are recommended for deeper understanding, but not required for success in the course.

The classroom for this course does not include the possibility of lecture recording through McGill's system. Please make an effort to attend all classes.

The required readings for each week are listed below. Optional readings will be posted on for each topic for students who are interested in learning more. The books referred to by their authors' last names, 'Massimi' and 'Chang', are the following (both available as e-books through the library):

Michela Massimi, , Oxford University Press, 2022

Hasok Chang, , Cambridge University Press, 2022

	W Aug 30 <sup>th</sup>	Introduction	Please read the syllabus. : Monday Sept 4 <sup>th</sup> is Labour Day.
	W Sept 6 <sup>th</sup>		

M Nov 6 <sup>th</sup> W Nov 8 <sup>th</sup>	A realism compatible with pluralism	Chang, Ch. 5, pp. 223-239 and 'Closing Remarks', pp. 252-255. : 2 <sup>nd</sup> Essay due this week!
M Nov 13 <sup>th</sup> W Nov 15 <sup>th</sup>	On the relation between mathematics and nature	Mark Wilson (2007), "The Unreasonable Uncooperativeness of Mathematics in The Natural Sciences"
M Nov 20 <sup>th</sup> W Nov 22 <sup>nd</sup>	The role of mathematics in scientific explanations	Mary Leng (2021), "Models, structures, and the explanatory role of mathematics in empirical science"
M Nov 27 <sup>th</sup> W Nov 29 <sup>th</sup> Thu Nov 30 <sup>th</sup>	Causal and non-causal explanations in science	Alisa Bokulich (2018), "Searching for non-causal explanations in a sea of causes" : Thursday, Nov 30 <sup>th</sup> is a make-up day and follows a Monday schedule.
M Dec 4 <sup>th</sup>	Concluding remarks	Final class of the course, no new readings. : 3 <sup>rd</sup> Essay due this week!

mandatory. It will be a chance for you to ask questions about the feedback you received, and you will be asked to explain some of what you wrote. After this meeting, you will be asked to submit a revised version of your essay, reflecting the feedback you received. Full instructions for this will be posted on MyCourses. Note: you must meet the instructor and submit a revised version of the first two essays to get credit for those essays. However, for the last essay of the course, you will not need to meet the instructor, not to submit a revised version. (Of course, you still meet the instructor if you have any questions.)

If you have a valid reason to ask for an extension, please [\(oran.magal@mcgill.ca\)](mailto:oran.magal@mcgill.ca). As a rule, extensions will be given only for medical reasons or serious personal/family issues. Since the public health system is already overloaded, I will not ask you to provide a medical note, but I do require that you take responsibility to communicate with me in a timely manner.

*MyCourses* reading assignments and essay instructions will be distributed through (in the 'assignments' tab of the course page), and students should submit their work only through . Do not send your work by email to the instructor unless you are specifically asked to do so.

Reading assignments will be submitted through MyCourses as plain text (there will be an input box for you to copy/paste your work from a word processor). Essays and revised essays can only be submitted through MyCourses as a PDF file. It may help to know that Microsoft Word (for PC or Mac) is provided to you for free through McGill and can generate PDF files (an option under 'save as'). If you are using any other software, simply use or to save your work as a PDF prior to submitting it.

McGill University values academic integrity. Therefore, all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures. (see [www.mcgill.ca/students/srr/honest/](http://www.mcgill.ca/students/srr/honest/) for more information)

Mobile computing and communications devices are permitted in class insofar as their use does not disrupt the teaching and learning process. Please do not record the lectures without instructor's permission.

Instructor-generated course materials (e.g., handouts, notes, summaries, exam questions, etc.) are