

Welcome to the course, Engineering, Technology and Equity. My name is Dr. Rupul Varato and I will be your instructor for this course. All the information you need about this course, the course delivery when the lectures will be published, the office hours, the course schedule, the course overview, objectives, as well as Concordia's policies related to learning and plagiarism and conduct of students. All of these can be found in the course syllabus uploaded. Please read the course syllabus in the first week to familiarize yourself with how the course will be conducted. And if you have any questions, you can email me. In the course syllabus, my email is also given as well as the office hours I will be having every week for you all to reach me if you have any questions about the course. In case you send any questions by email, which relate to the entire course, for instance, if you cannot find a reading or it's a question and pertinent to the entire class, I will publish the response as an announcement on Moodle and you will not hear back from me individually. So when you send an email, please be sure to check Moodle also. Also, I will respond to the emails only on working days and please allow up to two days for me to respond. The rest of the information about the course overview and the course objectives, please look at it carefully in the course syllabus. The main things that we will cover in this course is to help you identify, analyze and understand how engineering and technology are pertinent to issues of equity and social justice. The course assumes that you know these terms somewhat, that you're familiar with them, but we will still go over them briefly in the first session. After the first session, which is an introduction of these terms that you will be using throughout the course, we will cover four main modules throughout the course. The first module is related to technology and race. The main question you have to think about when we cover these topics is that is technology racialized? The second main topic that we will do relates to colonialism and technology. In this one, we will look briefly at the history of colonialism and the role that technology has played. But very importantly, we will look at how this is still continuing. How is technology still contributing to modern day colonialism? And this will look at topics like globalization, current work culture, work ethics, the tech industry especially. The third main topic will be gender and technology. Here again, you need to think about what are the inherent biases in technology that make it gendered? Is the use of technology gendered? And are there also any advantages to this? Or is it only disadvantages that we can think about? And the final topic that we will cover is engineering as a discipline and marginalization. This includes how the discipline evolved, how it continues to marginalize certain groups. And then finally, we will look at how engineering workplaces need to recognize and act upon marginalization and discrimination. The readings related to each of these topics, as well as the related assignments, you'll find them in the course syllabus. You'll see that out of all the readings, five of the readings will count towards your grade. You need to read and annotate on perusal by certain dates, which is all mentioned in the syllabus. Apart from this, we will also be having two quizzes on Moodle. They will be about 25 minutes long, and they will test your knowledge of the topics that we have covered so far at each stage when the quiz is given. The quiz will consist of questions like multiple choice, short answer questions, and true and false questions. You should keep in mind that Concordia has very strong policies on plagiarism. All your work needs to be original. But also keep in mind that the work we will do here, I don't discourage the use of AI for what you're doing, but you need to know the topics yourself. So you need to think about whether it will actually aid you or not. The annotation work, what I require is that during each lecture, I will tell you a specific thing that you need to comment on in the annotations. That will be for the reading that follows for the week after. So in these instances you'll see that AI is actually not going to help you so much. So it's more important that you read and try to understand the reading yourself. Any of the material that we cover in the lectures, in the readings, or any audio visual material that we go over in the lectures, that can form the basis of the quiz. Since the quiz is the majority of your grade, if you rely on AI, for instance, to do the reading assignments, you will not be able to pass the course. So while I understand that this requires more work, it's important that you try to understand

the process yourself rather than relying on technology to help you in this case. Coming to the contents of the course, the most important thing you need to think about before we start the first lecture the next time is why are we thinking about issues of equity in technology? Why are we thinking about equity in engineering? Is it simply because these are buzzwords and we need to satisfy certain protocols? Is it because discrimination, race, me too, the gender movement, all of these things are something that we suddenly need to acknowledge? Or is it because there are long-standing biases in engineering and technologies? And is it something that's really important to address? You need to start thinking about what makes engineering inherently biased. Technology seems to be something very neutral because it seems to be engineering solution based on materials and processes. But in every engineering design, in everything that finally gets launched, in everything that we finally built, there are always people involved and that leads to inherent biases. It leads to questions of who designed, who implemented, who is it for and how is it actually being used? You can see that in the smallest technology to the largest projects that you find. So these are the main questions that this course will address and it's something we would like you to be familiar with because as you go into your professional lives, this is something that you need to carry the whole time. You need to be aware of the biases that are there and only then can you think about how you will address them. So I will leave the introductory session here, leaving you to think about these questions until the time the next lecture is published.