

# CIVE230 – Engineering and Sustainable Development : Learners from Two Groups

**Dr. Nadine Ibrahim:**

I teach a course on engineering and sustainable development, which is typically offered to second year civil engineering students who take this course as a core requirement for their degree and they form the majority of the students in the course. And it also attracts fourth year management engineering students that take this course as a technical elective. So there are two groups of students in the course who have different motivations for taking it. But even among the two groups, there's varying levels of interest around calculation kind questions and more discussion-based questions.

So in order to meet the needs and expectations of the students in the course, there were a couple of things that were done and they aligned quite nicely with what is mentioned on the course outline that this course teaches sustainability, both quantitatively and qualitatively. One of the things that were done were around the assignments where they were structured in a way to offer that qualitative piece and that quantitative piece. So there are questions on the assignments that are more theory-based and more discussion-based. And there are questions that are problems that include calculations and this way the assignments allow students to do a little bit of both.

Another thing that was done was introducing optional readings that form a basis for discussion. This was mentioned on the weekly checklist, which gives students insight into what is going to be covered that week. But it clearly states what is considered mandatory readings for the course versus optional readings and resources. Now there were weekly social meets that I scheduled for students in the course in this very remote setting.

And it was an opportunity to build a sense of community, create some discussion topics, and a lot of the discussions really centered around these optional readings. So it was actually a bonus to get students to tap into some of these optional resources. And overall having done those two interventions created a sense of community and the students in the course behaved as a cohesive group rather than having two distinct groups yet still have their expectations met.