About the Course

Sustainable Infrastructure course has been taught using traditional teaching methods. There is evidence that traditional modalities do not align with how students in modern society learn. They have grown up with high tech communication tools, internet and media. Our teaching methods need to align with these trends, otherwise students’ learning outcomes can be adversely affected. The project is about transforming the teaching from traditional mode to blended mode.

Redesign Aims

The aim of the project is to transform the Sustainable Infrastructure course from traditional methods to blended mode to allow a significant proportion of the content to be delivered online and asynchronously to allow students to utilize the material at their own pace, own location, and a time they desire. The aim of the project is to design a blended course that is accessible, engaging and adaptable to varying student needs, interests, learning styles, and schedules.

Approach

The foundation for the approach came from consultation with students and the industry partners. The course is now imbued with a combination of generally recognized blending methods, online and face-to-face delivery, integrated with other teaching and learning methods to help students realize their full potential. The approach focused on adopting teaching methods that aim to improve engagement of students with teachers and their peers to practice cooperative and collaborative learning and to apply what they learn from the course in real life situations.

Outcomes

1. Developed a blended learning package with seven types of teaching and learning components – classroom lectures and panel discussions, videoed lectures, videoed Q&A, online quizzes, online discussion forums and field visits.
2. Creation of a blog for interaction between students and teachers as well as with industry partners while providing a platform to launch new project and ideas, display student work and student achievements.
3. Establishing a protocol to provide a regular release of live projects from the industry as group projects.
4. Trailblazing the blended course in Semester 2, 2017 and receive feedback from students.
5. A complete blended learning package is developed and implemented in semester 2, 2018.