# BLENDED COURSE CASE SUMMARIES

## Flipping the classroom in a large first-year computer science course

Senior Lecturer Aslam Safla

> " *When redesigning the course, we didn't want to lose any important elements from the traditional model. We wanted to get as much of the interaction with students into an online space. The bulk of the material is now online lecture videos, explaining the basic concepts and then students attend one face-to-face lecture per week. As a student, you need to interact with the lecturer. You need to be able to ask questions. As a lecturer, you want to know: Are the students picking up the material. Are there any gaps? Is there something that I need to focus on differently in a classroom setup?* "

### ABOUT THE COURSE
- First-year Computer Science course in the Science Faculty (Introduction to Programming);
- **Class size**: Approximately 1300 students;
- **Session types:** Online video lectures, In person lectures (Interactive), In person practical sessions.

### ENABLE APPLIED
Aslam and his team redesigned an introductory programming course embedding many of the ENABLE principles in their approach. Their use of a flipped classroom model adopts Responsive Teaching and Online Engagement Design principles. While the decision to adopt this model was driven by practical factors — such as limited lecture spaces and a growing demand for the course — the team used this shift to thoughtfully integrate key elements of traditional face-to-face teaching with online learning. They drew on their collective experience, student feedback, and lessons from the Emergency Remote Teaching period, demonstrating Deliberative Course Planning.

### HOW
**Pre-Class Activities**
The course is divided into 13 sections, each with 3-4 lessons. Each lesson includes 2-3 video lectures, 10-15 minutes long, released weekly. Experienced lecturers recorded these videos, anticipating common student questions and incorporating them into the content. Engagement is built into the online lecture recordings through multiple-choice theory questions and coding exercises, all hosted on the learning platform via a custom-build tool.

**In-Class Activities**

Students attend one weekly lecture and are expected to have reviewed the material beforehand. Aslam describes this as the ideal lecture they never had time for in the traditional course. The lecturer briefly reviews the week's key concepts, with most of the session dedicated to discussion, Q&A, coding practice, and troubleshooting. Students are encouraged to write programs, experiment, and engage actively.

**Post-Class Activities**

Students attend a two-hour practical session, starting with a theory quiz to ensure preparation. They then work on programming assignments (3-4 problems), with tutors available to assist during the session. Additional opportunities for feedback are provided through various channels, including a hot seat, the Automarker (an automated code feedback tool), and tutor-managed WhatsApp groups. This flexible (assessment and) feedback mechanism allows students to both receive direct feedback and learn from questions posed by their peers.

**LINKS**
- **Listen to the Podcast:** What's your blend: In conversation with UCT Senior Lecturer Aslam Safla
- **Learn more about:** Deliberative Course Planning, Responsive Teaching and Online Engagement Design, Flexible Assessment and Feedback.

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⧉ **Visit the ENABLE Designing for Blended Learning webpage**