

LSCI1001 is a biology course offered to Year-1 Science and Engineering students. They come from different backgrounds in terms of where they received their high school education and the curriculum/examinations they took. Further, there is variation among them in regard to which science subject they studied. We recognize that a basic understanding of certain Chemistry and Physics concepts are essential as a foundation for them to further in any specialized area of biological science. Our objective therefore is to standardize their basic concepts in chemistry and physics at the start of the course for fairness and consistency.

Our micromodules comprise 2 online videos on Chemistry and Physics for students' self-learning. After watching the videos, the students are required to attempt an online problem set for self-assessment. For the flipped classroom activities, the class is split into groups, and each is assigned to a senior student, who will follow up on the video content with in-class activities to reinforce students' understanding. These activities include a "**Sentence Decoding**" game to show the complementarity and universal nature of DNA's base sequence and a "**Graphic Presentation**" game to visually demonstrate a Physics concept. The online problem set and in-class activities are assessed, and constitute 10% of the overall grade.

We evaluated the students' survey from 2 perspectives: **1. How effective our Flipped Classroom has been in aiding their knowledge understanding.** Over 50% of students agreed/strongly agreed that the online video was clear and useful, and about 60% agreed/strongly agreed that class activities further aided their understanding. The opinion towards how closely-related the class activities were in relation to the online video were more neutral, particularly for the Chemistry part. Students who disagreed/strongly disagreed with the objectives in this section constituted less than 10% for both Chemistry and Physics. It is encouraging to see that flipped classroom approach has facilitated student's learning for the majority. **2. How interesting and novelty the Flipped Classroom approach has been.** Close to 70% of students agreed/strongly agreed that the class activity for Chemistry was interesting, and indeed – our senior students also reported that they were engaged and enthusiastic throughout. In particular, 77% of students agreed/strongly agreed that they gained new knowledge through flipped classroom activities and a solid 65% agreed/strongly agreed that they enjoyed this new mode of learning. It is worthy to note that "strongly agrees" in regard to the interest and novelty of flipped classroom approach constituted the largest portion relative to other "strongly agreed" aspects of our flipped classroom initiative, which shows that a different approach adds color and variety to students' learning experience.

Overall, we believe that flipped classroom approach is a breath of fresh air for our incoming students, and the fact that it was carried out and conducted by senior students, with supervision from the instructor, meant the atmosphere was relaxed but also engaging - *an appreciable balance that facilitates cohesion among students and effective learning.*