

Interdisciplinary learning helps equip students with problem-solving competencies that go beyond their area of specialisation. This prepares them better for future employment and gives them flexibility to engage in lifelong learning. At the National University of Singapore, it is a graduation requirement for students to read common interdisciplinary modules.

However, students are often apprehensive about interdisciplinary modules that teach content outside their major because they do not understand the purpose of such modules. They rely on the testimony of older students, who may emphasise the importance of specialisation in one's major over broader learning and skills.

Consequently, many students do not see the point of interdisciplinary learning, and enrol in these modules with little interest. This has been a problem since I started teaching interdisciplinary modules in 2017.

When teaching online, I have found students struggle with motivation and leave their learning to the very last hour when assignments are due. When students are rushing to complete assignments, they do not give themselves time to learn the subject properly and this, unfortunately, reinforces their lack of interest as they find themselves struggling.

As module coordinator for a course on computational reasoning, I teach coding and data analytics to 700 students in the Faculty of Arts and Social Sciences. At the start of the semester, about 70 per cent of students did not fully engage with course materials due to their poor perception of the module. I have had to invest significant effort into helping them see the purpose and value of the module, reducing the number of non-engaged students to about 30 per cent by week seven.

Teaching interdisciplinary modules requires a lot of effort to engage students, spark interest and help them to see the beauty and value of what they are learning. If you win students over and give them a positive perspective, they will be happy and willing to work hard, and be more engaged in the assignments and tutorial activities.

Here are a few essential lessons in generating student interest in interdisciplinary modules online:

1) Be a personable instructor who can connect with students

This is especially important for large modules in the blended-learning format as the online learning experience can be cold and impersonal.

Instructors must try to connect with the students online in a personal and warm way through various modes of communication. This humanises the online learning experience and makes the process more pleasant.

It is important for instructors to project an image of care and, of course, to act on it. Students are more receptive when they see that they have a lecturer who cares for their well-being and their learning. Simple things such as trying to remember all your students' names will go a long way.

I make visible all the effort I am going to to help them learn well – improving the videos or assignments or grading their work. First, this humanises me, which is important in improving the online learning experience. Second, when students see the efforts of their educators, they have more wish to reciprocate the effort. This is evidenced by remarks I hear from students, such as: "I simply wanted to barely pass this module, but seeing you work so hard so that I can learn well, I feel that I must work just as hard not to let you down."

2) The purpose and value of learning should be communicated in an informal manner

Communicating the importance informally has a greater impact because the message is intimate and personal. I record a fortnightly chit-chat session which I use as the first lecture video in the fortnightly series. In these videos, I dress less formally to signal that it's different from the regular programme. I announce the date and time just to let students know it is not a video recycled from a previous semester. I use the video as my way to check in on them and talk about things in my life; and I use it to address the more pertinent questions and concerns that students have raised.

This provides a platform to talk about real-world applications of interdisciplinary learning and my course. I share stories about peers who have graduated: how one of them missed out on a journalism job because he didn't know Microsoft Excel when asked at an interview; or how half my peers who graduated several years ago are now required to learn coding in their work even though they are in non-technical roles. This has a huge impact on the students and motivates them to take their learning more seriously.

I also use the chit-chat video to praise and assure students they are doing well. It is more personal for them to see my face and hear my voice saying it than to write it as an announcement. It gives them more confidence in what they're doing.

3) Junior students are highly influenced by senior students

I've witnessed how negative comments from seniors can severely affect the willingness to learn among the next semesters' cohort of students. Equally, if seniors say positive things about the module, their juniors will be more receptive to learning.

It is therefore important to ensure students get a good experience from the module since these students will quickly become seniors themselves and influence juniors.

Efforts I invested in the first two semesters started paying off in the third run of my course. My module developed such a positive reputation among the students that juniors are now happy to learn and are surrounded by seniors who are happy to support their learning.

To support attempts at boosting students' receptivity to the module, I found it useful to have a website showcasing the value of the module and students' feedback about it. I also curated testimonies and feedback about how students secured internships or how they found their learning applicable to their internship or work. Students often search online to find out about the course once they are pre-allocated the module. If we can make a strong positive first impression, they will be more open and receptive to learning when the semester begins.

The efforts described above have proved very successful, increasing initial take-up rates so that about 60 per cent of the 2020-21 cohort were fully receptive and engaged in the learning activities from the start of the semester. By week seven, about 80 per cent were fully engaged in their learning.

Students were won over by expressions of care and concern for their learning, and personal stories of how former students' work demands an interdisciplinary mindset or approach. These give students the incentive to remain fully engaged with the course.

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