

KKU

A Case Study

Khon Kaen University (KKU) is a public research university in Khon Kaen, Thailand. Students enter the KKU medical program as high school graduates and spend six years attaining their medical degree. The first year of the program focuses on general studies; 2nd and 3rd years on preclinical sciences arranged in systems-based modules, and 4th, 5th, and 6th years on clinical sciences arranged as discipline-based clinical block rotations. The class size is approximately 280 students per year.

“KKU’s participation in the HMX courses has been a great experience for our students and faculty and is one that we plan to continue into the future.”

—
Daris Theerakulpisut
Assistant Dean for International Relations
and Cooperation Strategies (through 2017)

Why HMX?

KKU administrators were interested in HMX Fundamentals courses to accomplish several goals:

- develop the overall student learning experience by offering additional support in preclinical subjects that are fundamentally challenging
- offer faculty and students insight into Harvard Medical School’s approach to online learning
- improve student performance on national licensing exams
- develop student facility with medical English terminology

KKU’s Approach

KKU first partnered with Harvard Medical School to offer HMX Fundamentals to students in 2015, with preclinical students initially taking the HMX Immunology and Physiology courses during their second and third years of study, overlapping and supplementing their regular classes.

During the initial year of the partnership, KKU gathered information from students regarding the ideal timing for the HMX course period. “Students said that the HMX courses helped them better understand the fundamental basis of the material they have learned in their regular classes,” says Daris Theerakulpisut, then Assistant Dean for International Relations and Cooperation Strategies.

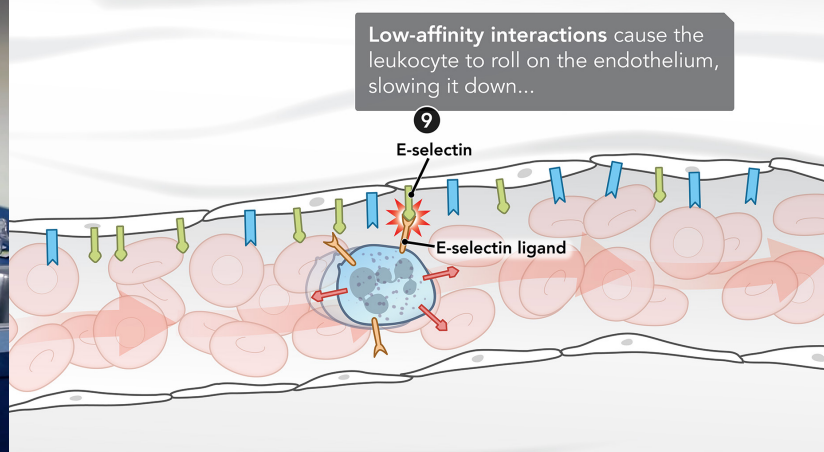
As a result of this feedback, KKU made two changes to the program in 2016 and 2017, shifting to offering HMX courses as preparatory material, and aligning course availability with break periods. Additionally, KKU expanded the program to include HMX Genetics, Biochemistry and Pharmacology. Currently, students entering their first, second, or third years in the KKU medical program have the opportunity to take at least one HMX Fundamentals course during their break periods.

onlinelearning.hms.harvard.edu/hmx



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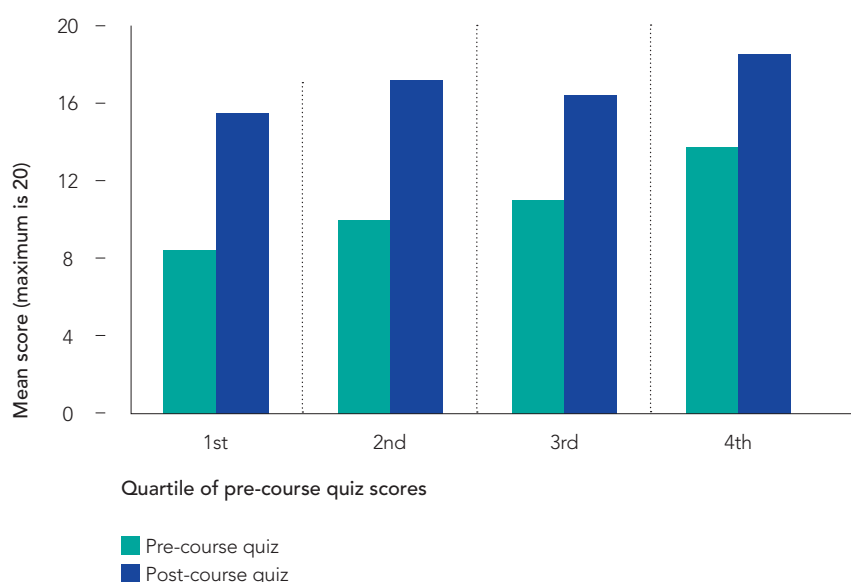
HMX



Program Results

HMX was able to measure student learning for KKKU through matched pre-course and post-course quizzes in each course. Post-course quiz scores improved significantly, regardless of students' prior levels of subject knowledge, a finding that was consistent across courses. This suggests that the courses can help to bring students with diverse prior knowledge levels up to the same high level. The HMX team was able to provide KKKU with reports outlining learning gains, students' engagement and performance in the courses, as well as students' satisfaction with the courses. Feedback from KKKU was that the emphasis on learning and engagement provided benefit to students and being able to see the results provided additional benefit to the KKKU faculty.

Figure - Example of learning gains from an HMX course run with KKKU



“The modules are created in a way that puts students at the center and makes them feel engaged in learning. Faculty members who participated as moderators in course discussion forums were able to see that guiding students in their self-directed learning process was as important as being a content provider.”

—
Charnchai Panthongviriyakul
Dean of the Faculty of Medicine

“Our faculty who participate as course moderators also think very highly of the way the modules are designed and... adopt some of the teaching techniques to improve their teaching methods in their regular classes.”

—
Daris Theerakulpisut
Assistant Dean for International Relations
and Cooperation Strategies (through 2017)

“I’ve learned many new things, and I know the concepts by understanding—not memorizing—everything.”

—
KKU student

“You not only have medical science, you have the case study that asks, how can we treat this patient? It helped me to see how you can use this knowledge in real life as a doctor.”

—
KKU student