How this information systems undergraduate is on the path for a Doctor of Medicine and a career in healthcare

SMU-Duke-NUS undergraduate Geraldine Lee may have to take a longer route compared with traditional medical school students, but she'll get to specialise in the fields she's passionate about



What if you can't decide which university course to take because you're interested in two different fields of study? Pursue both.

Ms Geraldine Lee, 21, faced this dilemma in 2019. Fortunately for her, she found an option that let her pursue her interests in science and technology — the SMU-Duke-NUS Medicine Pathway.

Having taken Biology and Chemistry at A Levels, Ms Lee — who graduated from the Integrated Programme of Raffles Institution in 2018 — has always been interested in the sciences.

Technology is also an area of study she has been interested in, and she wants to gain relevant skills in areas such as programming and data analysis, given the growing importance of technology in today's society.

Naturally, she considered courses related to science and programming such as computational biology and business analytics in the National University of Singapore (NUS), data science and artificial intelligence in Nanyang Technological University (NTU) and even biochemistry at either Imperial College London or University College London.

She eventually settled on an interdisciplinary double degree programme in SMU, and is enrolled in the Bachelor of Science (Information Systems) and Bachelor of Business Management double degree programme at the Singapore Management University (SMU).

After she was accepted into SMU, she received an e-mail from the university informing her about a new course of study that would lead her to a medical doctorate. Ms Lee applied for it without hesitation.

"The existence of this pathway allows me to enjoy the best of both worlds. I can learn more about programming and technology and get to pursue medicine later, which fits my interest in science, medicine and coding," she says.

Complementary fields of study

As the healthcare industry faces increasingly complex challenges that require innovative and entrepreneurial solutions, future doctors will benefit from having diverse skill sets beyond just clinical practice to deliver care and further the industry.

Duke-NUS' Doctor of Medicine (MD) programme is designed to equip graduates with critical thinking, research and other key skills needed for future leaders, innovators and scientists in healthcare.

Under a new programme launched in 2017, Duke-NUS offers conditional admissions to preuniversity students who wish to pursue its MD programme.

Interested students can first apply to take undergraduate studies at before going on to Duke-NUS Medical School to study medicine at a postgraduate level.

Duke-NUS' partner universities include NUS, NTU, SMU, Singapore University of Technology and Design, Yale-NUS, Duke University, Duke-KunShan University and King's College London.

Each partner university offers specific bachelor programmes that lead to the pathway. Admission to the pathway is based on academic excellence, strong display of leadership and community service experience, as well as how well candidates perform during the selection interview.

"The field of medicine will continue to undergo heavy technological advancement and I hope that the technical knowledge I gain from studying information systems will allow me to adapt swiftly to changes in the future," says Ms Lee.

She is particularly looking forward to Smart Healthcare in Asia, a module which offers an indepth look at the different ways smart technology can be applied in a healthcare setting across Asia.

Her parents have been supportive of her educational choices so far. Her father, in particular, is a strong supporter of education so that she would have relevant and transferable skills to pursue a career of her choice.

Students undergo undergraduate studies for three or four years, then spend four more years at the postgraduate medical school — compared to five years of medical school for a Bachelor of Medicine.



For Ms Lee, who is currently in her second semester of her second year at SMU, it means she enters Duke-NUS only in 2024 and is expected to graduate in 2028.

She doesn't mind though, as she intends to become competent in both fields so that her knowledge in one will complement the other.

"Even though my studies will take longer than if I had gone straight into medical school as an undergraduate, the SMU-Duke-NUS Pathway allows me to truly explore the range of my interests," she says.

A bright future

To prepare students for medical school, Duke-NUS has several they can participate in during their undergraduate years.

Students seeking a better understanding about graduate entry medicine, the roles of medical professionals and medical practice in Singapore can take a foundational Pre-Med Course and a Prehealth Experiential Programme, an intensive week-long immersion programme.

Additionally, there are advising sessions with the Duke-NUS Medical School faculty and Duke-NUS Medical Specialties Workshops, and students also have the opportunity to participate in the Duke-NUS Alumni Clinical Observership: a two-day attachment where they are paired with a practising doctor, who is a Duke-NUS alumnus and shadow him or her on the job.

To those considering the same pathway, Ms Lee advises them to choose an undergraduate degree they would enjoy studying.

"This way, you can merge your interests in a productive manner. Also consider if you can maintain passion for both the undergraduate subject and medicine as you'll need to be motivated in the long years ahead," she says.

As for herself, she looks forward to merging both her knowledge in information systems and medicine to help people in the future.

Duke-NUS Conditional Admissions Pathway

Date: Jan 23, 2021 Time: 10am to 1pm

About the programme

Admission criteria: Meet respective university's undergraduate admission requirements and Duke-NUS MD programme

Length of programme: 3 or 4 years undergraduate studies + 4 years postgraduate Doctor of Medicine

Yearly intake: 10 spots for each pathway

Partner universities: NUS, NTU, SMU, SUTD, Yale-NUS, Duke University, Duke-KunShan University and King's College London