The Information and Communication Technology (ICT) sector continues to be a significant engine of growth and a key enabler to other sectors of the economy. However, recent trends indicate that simply being skilled in software development is no longer sufficient to thrive in this fast-paced industry. Consequently, while there exist opportunities for ICT professionals, a fundamental shift in required skill sets comprising both advanced IT skills and soft skills that are focused on management and user-centred design has occurred. Thus, programming skills alone are no longer sufficient. Instead, an ICT professional requires a mix of technical know-how and skills such as project management, information architecture, and human computer interaction. The MSc (Information Systems) programme at NTU is designed to address this training gap and educate ICT professionals to play a significant role in the new ICT environment in Singapore and abroad.

- A broad-based curriculum covering critical aspects of information systems development.
- Emphasis on both technical and soft skills for information systems professionals.
- Multi-disciplinary and experienced staff from two schools with established graduate-level programmes.

Background of Programme

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Programme Highlights

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- Emphasis on both technical and soft skills for information systems professionals.
- Multi-disciplinary and experienced staff from two schools with established graduate-level programmes.

About the School

Located in Singapore, at the Nanyang Technological University, the Wee Kim Wee School of Communication and Information (WKWSCI) has the most comprehensive curriculum in Communication and Information Studies in Asia. The only full-fledged communication school in Singapore, WKWSCI is a world-class centre of excellence with an international faculty, state-of-the-art communication laboratories, and global institutional affiliations.

WKWSCI stewards an in-depth focus in research, generating empirical and humanistic analyses of communication topics and policy issues important not just to Singapore, but to the region and the world. With a talented team of faculty and research staff, the School undertakes a broad range of interdisciplinary research that spans across the diverse fields of communication and information.

WKWSCI establishes and maintains an international network of educators, researchers, and info-comm professionals through collaborative projects, conferences and other exchanges. This includes attracting some of the very best minds in communication studies to the School.
To this end, the MSIS programme is developed on a two-tiered structure. Foundation courses are designed to be broad-based and encompass a range of technical and soft skills that an Information Systems professional is expected to possess. Elective courses give students the opportunity to deepen their knowledge in areas of their professional interests. Broadly, they are categorised as:

1. Software Development and Infrastructure
   Provides students with the core of knowledge required for the design, development, maintenance, and management of information systems. Such training includes exposure to the latest technologies used in the development of information systems, as well as core skills required to cope with the rapidly changing nature of the field.

2. Human Computer Interaction
   Provides students with skills needed to store, organise, preserve, and manage information in a way that allows for its reliable, timely and accurate retrieval and use.

3. Information Management
   Provides students with the knowledge for designing information systems that are both useful and usable from an end-user perspective.

4. Information Systems Security
   Provides students with an understanding of the threats posed to networked information systems and the knowledge required to secure them.

5. Management of Systems and Services
   Provides students with soft skills required for managing information systems projects, information systems personnel, and resources.

Programme Structure

The MSIS programme comprises one core and five specialisations. The core consists of six core modules and five elective modules. Students have two options of study, namely, coursework and dissertation, or coursework only. In the first option, students take eight elective courses, and an individual research project which culminates in a report of more than 15,000 words. In the second option, students take nine elective courses, and CI6299 Critical Inquiry in Information Systems.

The MSIS programme may be taken by full-time or part-time study. The full-time programme can be completed within one year while the part-time programme can be completed within two years. Courses are conducted through lectures, tutorials and laboratory sessions during a two-semester year, from August to November and January to April.

“I wanted to have a breakthrough in my career and felt that the programme is relevant to my job as a software engineer. In fact, the programme has a right mix of technical and soft skills development that enable me to grow personally and professionally. The programme also improves my critical analytical thinking and research writing skills, which opens up the opportunity for an academic career.”

Russell Chang
Class of 2011

“Throughout my working life, I’ve always been involved in the management of IT. To be more effective as a Vice President in a bank, I wanted a programme which deepens my understanding on both the managerial and technical aspects of IT. After searching around, I found this programme to be the most suitable. Furthermore, NTU is one of the premier institutions in Singapore. Completing the programme gives me an added confidence to take up additional responsibilities at work. Besides gaining greater insights at the strategic level, I’m now better equipped to be involved in technical discussions at the ground.”

Shameem Nangarath
Class of 2011

“"The coursework was rigorous and my understanding of information systems has deepened. The programme offers good practical grounding with relevant issues being discussed. I have been recommending this programme to my friends. Undoubtedly, this programme opens up a wider range of IT-related job opportunities.”

Chang Chee Wai
Class of 2008

Note: Not all courses will be offered in a semester. Courses offered are subject to availability of instructors.