Programme Overview

Financial Technology (FinTech) refers to a cluster of emerging innovations that have the potential to revolutionize the nature of the finance industry, enhancing the productivity of financial firms by employing data science and cyber technologies. Global investment in FinTech has been so active in recent years that the Monetary Authority of Singapore has launched an initiative, the FinTech and Innovation Group, and pledged to spend S$225 million to develop the FinTech sector in Singapore.

Nanyang Technological University, Singapore (NTU Singapore) offers a Master of Science in FinTech (MSc in FinTech) hosted by the School of Physical and Mathematical Sciences. The curriculum is built upon data science, artificial intelligence, and information technology to provide students with the FinTech skills necessary for navigating the changing landscape of the finance industry. Strong emphasis is placed on the in-depth mastery of disruptive technologies in finance, including financial automation (e.g. robo-advisors) and financial cryptography (e.g. blockchain technology).

The curriculum consists of two specializations, Artificial Intelligence and Operations and Compliance. Upon completion of study, students will be conferred the degree of MSc in FinTech by NTU Singapore.

NTU Singapore is a world-class higher education institution ranked 11th globally, and 1st among the world’s best young universities for six consecutive years. NTU is also ranked the top university in the world for Artificial Intelligence (Nikkei and Elsevier 2017) for the period 2012-2016. Besides the academic achievements, we are proud to have one of the most beautiful campuses in the world, equipped with cutting-edge technological facilities.

“Drawing upon the expertise of world-class faculty and leading practitioners, the MSc in FinTech programme will equip fresh graduates and working professionals with the insights and skills necessary to progress their careers in FinTech.”

Prof. PUN Chi Seng
Director of MSc in FinTech
Programme and Curriculum Structure

- The MSc in FinTech programme is an intensive 1-year full-time or 2 years part-time programme by coursework taught in 3 trimesters per year.
- The programme consists of a total of 33 Academic Units (AUs), with 21 AUs of core modules, 6 AUs from the chosen specialization’s electives and 6 AUs from other electives.

### Core modules

- Introduction to FinTech
- FinTech Ecosystem and Innovations
- Principles of Finance and Risk Management
- Algorithmic Trading and Robo-Advisors
- Blockchain Systems I
- Python Programming
- Python for Data Analysis
- Probability and Statistics
- Data Mining*
- Practicum*

### Artificial Intelligence electives

- Advanced Natural Language Processing with Deep Learning*
- Quantitative Methods in Finance
- Blockchain Systems II

### Operations and Compliance electives

- Regulatory Technology
- Anti-Financial Crime and Compliance
- Financial and Risk Analytics I
- Financial and Risk Analytics II

### Other electives

- Operations Research I
- Operations Research II
- Time Series Analysis
- Data Management and Business Intelligence
- Information Retrieval and Analysis*
- Applied Cryptography

### Admission Requirements

- A good Bachelor’s degree in a relevant programme, e.g. quantitative majors, business, etc.
- A good TOEFL score (92 or more) or IELTS scores (6.5 or more)**
- A good GRE or GMAT score is preferred,
- A minimum of two years relevant working experience is preferred.

### Programme Fee

- Singapore Citizens $35,000
- Singapore Permanent Residents $55,000
- International Students $55,000

Amount quoted are exclusive of prevailing GST and subject to change.