



**NANYANG  
TECHNOLOGICAL  
UNIVERSITY**  
SINGAPORE

**NTU Centre in Computational  
Technologies for Finance**  
Graduate College

# Master of Science in Blockchain

# 1st Master's Programme in Blockchain and Its Applications

## Overview

The Master of Science in Blockchain (MSBT) programme is a flagship master's degree programme by Nanyang Technological University, Singapore, via the NTU Centre in Computational Technologies for Finance (NTU-CCTF).

The NTU-CCTF is an inter-collegiate and pan-university initiative, managed by the Graduate College (GC), with support from College of Computing and Data Science (CCDS) and Nanyang Business School (NBS), and strong involvement from the College of Engineering (CoE), College of Science (CoS), College of Humanities, Arts and Social Sciences (CoHAaS), National Institute of Education (NIE) and Lee Kong Chian School of Medicine (LKCMed).

The MSBT programme emphasizes the fundamentals of blockchain technologies (e.g. blockchain scalability, smart contracts, zero-knowledge proof, etc) from a computer science perspective, and explores the potential application of blockchain technologies in different vertical sectors, such as finance, banking, insurance, supply chain, energy, healthcare, artificial intelligence, and the Internet of things.

The core curriculum includes the theoretical foundation of blockchain technology, practical skills in blockchain and smart contracts development, and management skills covering blockchain governance, legal regulations, and business management, enabling students to understand the subject comprehensively.

We aim to train next-generation technical talents for Singapore and the global, with both a deep understanding of blockchain technology and its transformative applications.



## GLOBAL RECOGNITION

Join a flagship Blockchain Master's Programme at NTU, a globally renowned university for technological innovation and excellence.



1<sup>st</sup>

Times Higher Education Young  
University Rankings (2024)



12<sup>th</sup>

QS World University  
Rankings (2025)



10<sup>th</sup>

Coindesk's 10th Ranking of the World's  
Premier Blockchain Universities (2022)



## PROMISING CAREER PROSPECTS

Kickstart your career with a Master's in Blockchain Technology, and look forward to a high-paying start in the industry!

## UNIQUE CAPSTONE PROJECTS

Embark on a 6-month journey of Real-World Blockchain Innovations for shaping tomorrow's tech landscape, mentored by industry trailblazers.

## ACCELERATED CAREER GROWTH

Accelerate your career opportunities in the Blockchain Arena. Gain a direct edge in Employment Pass Assessment - Go beyond boundaries!

## DIVERSE CAREER ROLES

Become a Blockchain Developer, Solutions Architect, or Project Manager and be the part to shape the future of tech landscape.

# Programme Structure

The MSBT (Master of Science in Blockchain) programme is an intensive 1-year full-time (or 2-year part-time) programme by coursework. Students will be awarded the Master of Science in Blockchain after completion.

- Each compulsory course is a 3 AU course with 39 teaching hours, including lectures, tutorials, example classes and labs over 12 weeks.
- Each elective course is a 1.5 AU course with 19.5 teaching hours over 6 weeks.
- The Blockchain Innovation (Capstone) Project is a 6-month project with 3 AU.
- The Capstone project will be co-supervised by industrial experts through the Technical Fellowship Programme.
- The Capstone project is not a compulsory component.

## Core Courses

### Blockchain Fundamentals

- Introduction to Blockchain Technology
- Distributed Systems
- Introduction to Cryptography
- Software Engineering
- Blockchain Development Fundamentals
- Blockchain and Smart Contract Security
- Blockchain Privacy and Scalability



## Elective Courses

### Blockchain Development

- Web Programming Basics
- Blockchain Solutions and Smart Contracts
- Development of Decentralized Applications
- Software Project Management
- Introduction to Cyber Security
- Game Theory and Blockchain
- Data Science Projects in Practice
- AI in Context: Sectoral Perspectives and Insights



### Blockchain Management

- Token Economics
- Emerging Topics in FinTech
- Blockchain Business Applications
- Ethics and Laws in Blockchain
- Blockchain in Finance
- Computational Methods in Finance



## Innovation Project

### Capstone





## Admission Requirements

- A honour degree in computer-related majors from reputable universities and institutes or a bachelor's degree in any discipline with 2 years of computer programming job experience.
- Graduates whose native language is not English must provide proof of English language proficiency through any of the following ways:
  - ▶ TOEFL Score (Test dates must be within 2 years or less from the date of application):
    - ≥ 600 (paper-based)
    - ≥ 250 (computer-based)
    - ≥ 100 (internet-based)
  - ▶ IELTS Score (Test date must be within 2 years or less from the date of application):
    - ≥ 6.5
- GRE is not required for the MSc programme (by coursework).



## Timeline of 2026 Intake (Tentative)



## Tuition and Fees (Inclusive of 9% GST)

Programme Fees	
Tuition Fees	S\$63,220
Financial Assistance	
SC/PR Incentive	S\$5,000
SC/PR Financial Subsidy	S\$10,000
SC Study Grant	S\$5,000
NTU Alumni Incentive	10% of tuition fee



## Contact Us

- Academic Building North (ABN), 61 Nanyang Avenue, Singapore 637335
- <https://www.ntu.edu.sg/cctf>
- [cctf-msbt@ntu.edu.sg](mailto:cctf-msbt@ntu.edu.sg)

Learn more about us at:

Linkedin/Instagram/X/Youtube/Xiaohongshu: @NTU-CCTF



## MSBT Scholarships

### 1. MSBT Postgraduate Scholarship

For outstanding full-time applicants for their academic excellence, leadership, and industry or entrepreneurial potential in advancing blockchain innovation.

- **MSBT ASEAN Award - Up to S\$ 30,000**

For Full-time MSBT applicants from ASEAN countries with good academic standing, relevant industry potential or experience, and strong interest in pursuing Blockchain Development.

- **MSBT Study Award (Gold) - Up to S\$15,000**

For Full-time MSBT applicants of all nationalities who demonstrate stellar academic achievements and strong leadership qualities, etc.

- **MSBT Study Award (Silver) - Up to S\$ 10,000**

For Full-time MSBT applicants of all nationalities with excellent academic achievements and demonstrated industrial or entrepreneurial experience, etc.

### 2. MSBT Academic Merit Award

For top-performing MSBT graduates based on performance and achievements in the programme.

### 3. SG Digital Scholarship

For Postgraduates, if you are keen to pursue your tech- or media-related studies at the Master's or PhD level in specialized, to find out more at : [www.imda.gov.sg/how-we-can-help/singapore-digital-scholarship](http://www.imda.gov.sg/how-we-can-help/singapore-digital-scholarship)

## How To Apply

To apply for the MSBT programme, please visit: [www.ntu.edu.sg/education/graduate-programme/master-of-science-in-blockchain](http://www.ntu.edu.sg/education/graduate-programme/master-of-science-in-blockchain)

Or scan the QR code to go directly to the application page :

