



Learn More About
Our Programme



Learn More About
NTU-CCTF



NTU Centre in Computational
Technologies for Finance
Graduate College

MASTER OF SCIENCE IN BLOCKCHAIN

 <https://www.ntu.edu.sg/cctf>

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Learn more about us @NTU-CCTF



1st Master's Programme in Blockchain and Its Applications

Offered by a Top 12
QS-ranked University



We aim to train next-generation technical talents for Singapore and the globe, with both a deep understanding of blockchain technology and its transformative 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 (CoHASS), National Institute of Education (NIE) and Lee Kong Chian School of Medicine (LKCMedicine).

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.

GLOBAL RECOGNITION



1st

Times Higher Education Young University Rankings (2024)



1st

EduRank Best Universities for Blockchain and Cryptography (2025) in Singapore



12th

QS World University Rankings (2026)



10th

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

01 PROMISING CAREER PROSPECTS

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

02 UNIQUE CAPSTONE PROJECTS

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

03 ACCELERATED CAREER GROWTH

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

04 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.

Core

Each compulsory course is a 3 AUs course with 39 teaching hours, including lectures, tutorials, example classes and labs over 12 weeks.

Electives

Each elective course is a 1.5 AUs course with 19.5 teaching hours over 6 weeks.

Capstone

The Blockchain Innovation (Capstone) Project is a 3 AUs elective course with 6-month project work with industry partners.

The Capstone project will be co-supervised by industrial experts through the Technical Fellowship Programme.

The Capstone project is not a compulsory component.



COURSE CURRICULUM

Core

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

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
- Scalable Systems Architecture For Fintech

Innovation Project (Capstone)

CAPSTONE PROJECT

INDUSTRY PARTNERS



Opportunity for students to tackle real-world blockchain challenges in collaborative Capstone Projects.

Option for students to collaborate with industrial experts on relevant projects and work on current industry issues.

Balancing of theoretical foundations, practical engineering skills for blockchain development, and managerial skills covering blockchain governance, laws, regulations and business management.

ADMISSION REQUIREMENTS

Qualifications

An honours 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.

English Proficiency

Graduates whose native language is not English must provide proof of English language proficiency through any of the following ways:

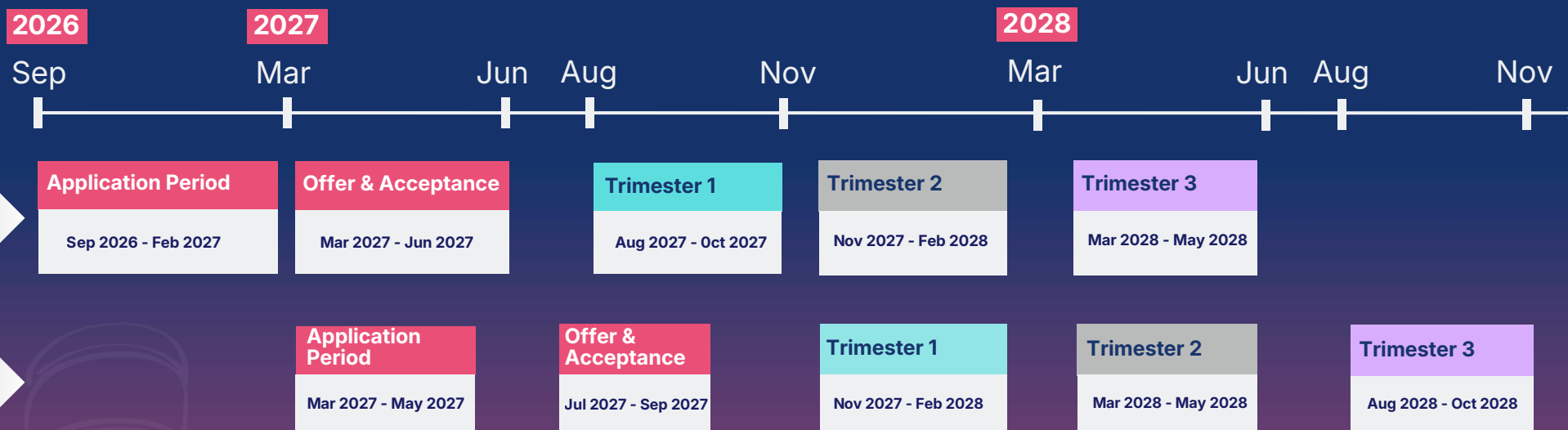
- **TOEFL Score** (test dates must be within 2 years from the date of application):
 - ≥ 600 (paper-based)
 - ≥ 250 (computer-based)
 - ≥ 100 (internet-based)
- **IELTS Score** (test date must be within 2 years from the date of application):
 - ≥ 6.5



ADMISSION TIMELINE

2

Batches of
Intake





TUITION FEES

Programme Fees | (Inclusive of 9% GST)

Tuition Fees	S\$ 65,748.80
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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 fees





Our programme supports outstanding full-time applicants and current students through a wide range of awards and scholarships. These awards recognise academic excellence, leadership, and contributions to the blockchain and Web3 ecosystem. We aim to attract top global talent and support students throughout their studies, while encouraging innovation, research, and industry engagement.

MSBT SCHOLARSHIPS

■ MSBT Postgraduate Scholarship

- **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.

- **MSBT Study Award (Bronze)** - Up to S\$ 5,000

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

■ MSBT Academic Merit Award

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

■ IMDA SG Digital Scholarship

Supports local postgraduate students pursuing research in future communications technologies. To find out more at : www.imda.gov.sg/how-we-can-help/singapore-digital-scholarship

4+1 Integrated Programme

Phase I

HOME (PARTNER) UNIVERSITY

Students complete undergraduate studies at their home (partner) university.

Phase II

NTU

Eligible students advance to the MSBT programme offered by NTU. Students will be awarded the Master's Degree from NTU upon fulfilling the graduation requirements.

1+1 Dual Programme

Phase I

HOME (PARTNER) UNIVERSITY

Students enrol in the Dual Programme to embark on their 1-2 year Master's degree programme at home (partner) university.

CREDIT TRANSFER

Phase II

NTU

1 year Master's studies at NTU MSBT Programme. Students will be awarded the Master's Degree from Partner University and a Master's Degree from NTU upon fulfilling the graduation requirements.

ACADEMIC COLLABORATION



The Academic Collaborations seek to broaden the scope of the academic curriculum and to provide a unique learning experience for students from Partner Universities and NTU, as well as to promote co-operation between the two institutions.

Partner Universities

- Beijing University of Posts and Telecommunications
- National Taipei University of Technology

