DSE4211/QF4211 Course Details

Important Dates:

- Saturday, 25 January 2025: Group registration with member information in Google form
- Wednesday, 22 January, 12 February, 12 March, and 26 March@12:00 – 12:10 Class Quiz (bring own laptop)
- Wednesday, 29 January (PH): There will be no physical lecture. Pre-recorded lecture will be published in Canvas for self-study.
- Wednesday, 19 February: Midterm (bring own laptop).
- Saturday, 22 February: Homework Due.
- Saturday, 5 April 2025: Presentation materials submission in a zipped file including editable presentation slides, data, code and (optional) pre-recorded video should be uploaded to CANVAS.
- Week 12 and 13: Oral Presentation
- Saturday, 19 April 2024: 6-page Project Report submission

Important Information:

Grading scheme

Closed-book Class Quiz: 15%

Closed-book Midterm: 15%

Open-book Homework: 20%

Group Project: 50% (25% for group presentation and 25% for group project essay)

- In person attendance is mandatory for all assessments. Please bring your student ID for verification.

- Absence Policy: Missing the quiz and midterm will result in a zero mark, and no makeup test will be arranged. No virtual participation is allowed. Submitting online without physical attendance will not be graded and will result in a zero mark.

- Late submissions will NOT be accepted for the quiz and midterm.

- Open-book Homework: You are allowed to use any teaching materials and internet resources. However, this is an individual test. Collusion or plagiarism will be dealt with according to NUS' assessment regulations. You can utilize course materials and codes to assist you in the assessments. However, the use of generative AI platforms, such as OpenAI, or any form of social

media is strictly prohibited. Ensure you adhere to the university's policies regarding the use of AI technologies in learning and examination settings.

- Laptop Required for the class quiz and midterm: Ensure your laptop is fully charged. It is advisable to bring a charger as well.

- Late submission penalty for group project: Due follows CANVAS clock. Every day late (counted immediately after submission due) incurs an additional penalty of 20% of the maximum-possible marks.

Class Schedule

Week	Date	Topic	Instructor
1	Mon, 13 Jan & Wed, 15 Jan	Introduction: Overview of digital currencies and their impact on global finance	Chen Ying
2	Mon, 20 Jan & Wed, 22 Jan	Programming for Smart Contracts (Quiz)	Chen Ying
3	Mon, 27 Jan & Wed, 29 Jan	Time Series Analysis for Digital Currencies (29 Jan PH)	Chen Ying
4	Mon, 3 Feb & Wed, 5 Feb	Primer on Cryptocurrencies and Blockchain: Fundamentals of cryptographic tools and blockchain technology	Wang Dabin
5	Mon, 10 Feb & Wed, 12 Feb	Bitcoin, Ethereum, Ripple (Quiz)	Wang Dabin
6	Mon, 17 Feb & Wed, 19 Feb	Recap and consulting on 17 Feb. Midterm on 19 Feb	Chen Ying
Recess Week			
7	Mon, 3 Mar & Wed, 5 Mar	Market Dynamics of Digital Currencies	Wang Dabin
8	Mon, 10 Mar & Wed, 12 Mar	Central Bank Digital Currencies (CBDCs): Exploration of digital currencies issued by central banks (Quiz)	Wang Dabin
9	Mon, 17 Mar & Wed, 19 Mar	Stablecoins: Introduction and their role in maintaining price stability	Wang Dabin

10	Mon, 24 Mar & Wed, 26 Mar	Wallets: Overview of various digital wallets for managing cryptocurrencies (Quiz)	Wang Dabin
11	Mon, 31 Mar & Wed, 2 Apr	Machine Learning for Digital Currencies	Chen Ying
12	Mon, 7 Apr & Wed, 9 Apr	Group Project Presentations	Chen Ying
13	Mon, 14 Apr & Wed, 16 Apr	Group Project Presentations	Chen Ying