

COURSE DETAIL

MATHEMATICS OF MODERN CRYPTOGRAPHY

Country

Taiwan

Host Institution

National Taiwan University

Program(s)

National Taiwan University

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Mathematics Computer Science

UCEAP Course Number

126

UCEAP Course Suffix**UCEAP Official Title**

MATHEMATICS OF MODERN CRYPTOGRAPHY

UCEAP Transcript Title

MATH CRYPTOGRAPHY

UCEAP Quarter Units

4.50

UCEAP Semester Units

3.00

Course Description

This course provides an introduction to modern cryptography with a mathematical focus. It covers the basics of abstract algebra and number theory, and introduces cryptocurrencies such as Bitcoin, BlockChain, and FinTech. Topics include data security, stream ciphers, Data Encryption Standard (DES) and alternatives, Advanced Encryption Standard (AES), block ciphers, public-key cryptography, RSA Cryptosystem, elliptic curve cryptosystems, digital signatures, hash functions, Message Authentication Codes (MACs), and key establishment.

Language(s) of Instruction

Host Institution Course Number

MATH5425

Host Institution Course Title

INTRODUCTION TO CRYPTOGRAPHY

Host Institution Course Details

https://nol.ntu.edu.tw/nol/coursesearch/print_table.php?course_id=221%20U6120&c...

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Mathematics

Course Last Reviewed

2022-2023

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