FinTech graduates are expected to be able to
• derive and develop financial and managerial insights from big data
• design and engineer innovative solutions to meet financial service needs
• optimize financial decisions in complex business environment
• understand and analyze the social, economic, security, and legal impacts from their solutions

The industry creates a great amount of employment opportunities to accommodate innovative young talents. Some students of the programme have taken internship opportunities at Hong Kong Monetary Authority, Goldman Sachs, HSBC, ZhongAn Insurance, Haitong International, CreditEase Wealth Management, Deloitte, etc. Employers of the recent graduates include HSBC, BOCHK, Goldman Sachs, and Deloitte.

FinTech graduates are ideally suited for positions requiring strong technological and quantitative skills. Besides the traditional careers in the financial industry, the graduates are very competitive for jobs with innovative nature, such as
• Insurance (automatic underwriting and claiming, precision marketing, risk management)
• Asset and wealth management (data-driven investment strategy design, robo-advisory, algo trading)
• Internet finance (P2P lending, crowdfunding, mobile payment system, credit analytics, electronic currencies)
• Retail and Investment banks, security companies, and other trading platforms (IT system development, financial infrastructure architecture, investment analysis, trading)
• Government regulatory agencies (data analytics, Regtech)
• FinTech related startups

The programme also provides a good foundation for pursuit of further advanced studies.

Department of Systems Engineering and Engineering Management
Room 609, William M.W. Mong Engineering Building
The Chinese University of Hong Kong, Shatin, N.T., Hong Kong
Tel: (852) 3943 3144
Fax: (852) 2603 5505
Email: dept@se.cuhk.edu.hk
Programme Website: https://fintech.se.cuhk.edu.hk
Programme Mission
To educate and equip students with the essential knowledge and capabilities to apply technological innovations to financial services; to nurture leadership and entrepreneurship for the next generation of financial talents in support of Hong Kong’s endeavor to grow to an international FinTech hub.

Admission Requirement
Applicants applying on the strength of the HKDSE examination results will be admitted through the Joint University Programmes Admissions System (JUPAS) (JUPAS Code - JS4428). Please visit the JUPAS website (www.jupas.edu.hk) for eligibility and details of JUPAS application.

Non-JUPAS applications are strongly encouraged.

Study Scheme
Students are required to complete a minimum of 73 units of major courses to graduate. The curriculum consists of a combination of FinTech foundation courses, required and elective courses, and practicum and research component courses. Students are also encouraged to take other courses offered by the Engineering, Business, and Law Faculties.

Major Programme Requirement (Tentative) (All 3-unit courses unless specified) Units
1 Faculty Package 9
   ENGG110/ESTR1002 Problem Solving By Programming
   ENGG110/ESTR1005 Linear Algebra for Engineers
   ENGG110/ESTR1006 Multivariable Calculus for Engineers
2 FinTech Foundation Courses 13
   CSCI1120/ESTR1101 Introduction to Computing Using C++ or Java
   CSCI1130/ESTR1102 Introduction to Computing Using Java
   ENGG2440/ESTR2004 Discrete Mathematics for Engineers
   ENGG2760/ESTR2018 Probability for Engineers (2-unit)
   ENGG2760/ESTR2020 Statistics for Engineers (2-unit)
   MATH2510 Calculus for Engineers
3 Required Courses 30
   CSCI1100/ESTR1101 Data Structures
   CSCI4190/ESTR4103 Introduction to Cyber Security
   EC2N201 Basic Microeconomics
   FINA2101 Fundamentals of Business Finance
   FTCE2101/ESTR2120 Optimization Methods
   FTCE3010 Financial Innovation & Structured Products
   FTCE3020 Introduction to Financial Infrastructures
   SEEM2520 Fundamentals in Financial Engineering
   SEEM3550/ESTR3505 Financial Technology Practicum
   SEEM3550/ESTR3506 Investment Science
4 Elective Courses 14
   ACCT2111 Introductory Financial Accounting
   ASTR1101/ESTR1104 Foundation of Applied Deep Learning
   ASTR1101/ESTR1104 Foundation of Applied Deep Learning
   CSCI2100 Introduction to Python (2-unit)
   CSCI2100 Introduction to Programming (2-unit)
   CSCI2102 Introduction to Operating Systems
   CSCI2104/ESTR2104 Design and Analysis of Algorithms
   CSCI3130 Fundamentals of Machine Learning
   CSCI4190/ESTR4103 Distributed and Parallel Computing
   CSCI4340/ESTR4340 Introduction to Cloud Computing and Storage
   CSCI4400/ESTR4430 Data Communication and Computer Networks
   EREC3010/ESTR3010 Computer Networks
   ECON201 Basic Macroeconomics
   ENGG120 Engineering Internship (1-unit)
   FINA2101 International Finance
   FINA2101 Management of Financial Institutions
   FINA3701 Corporate Finance: Theory and Practice
   FINA3701 Risk Management and Insurance
   FINA4101 Security Analysis
   FTEC4001 Advanced Database Technologies
   FTEC4002 Behavioral Analytics
   FTEC4002 Data Mining for FinTech
   FTEC4002 Payment Systems and Cryptocurrency Technologies
   FTEC4002 Financial Informatics
   FTEC4006 Internet Finance
   FTEC4007 Introduction to Blockchain and Distributed Ledger Technology
   IERG4000/ESTR4000 Building Sustainable Internet-based Services
   IERG4210 Web Programming and Security
   MKTG4120 Quantitative Marketing
   SEEM3540 System Simulation
   SEEM3545/ESTR3502 Engineering Innovation and Entrepreneurship
   SEEM3570/ESTR3508 Stochastic Models
   SEEM3580 Risk Analysis for Financial Engineering
   SEEM4750/ESTR4750 Statistics Modeling and Analysis in Financial Engineering

Dual Degree Programme
Background
Department of Systems Engineering and Engineering Management (SEEM), The Chinese University of Hong Kong (CUHK) offers a dual degree programme (DDP) together with Department of Financial Mathematics (FMA), Peking University (PKU). Under this framework, students of this programme will obtain Bachelor degree of Engineering in Financial Technology offered by CUHK and Bachelor degree of Science in Financial Mathematics offered by PKU upon completion of the graduation requirements of the concerned programmes. Students participating in this programme will benefit from rigorous training in both mathematics and engineering, which significantly enhance their competitiveness.

Study Plan and Graduation Requirements
Students are required to take mathematical foundation courses at PKU in the first two years, and study FinTech in CUHK in the third and fourth years.

Major Programme Requirement (Tentative) (All 3-unit courses unless specified) Units
1 Faculty Package 9
2 FinTech Foundation Courses 13
3 Required Courses 15
   CSCI1100/ESTR1101 Data Structures
   CSCI1100/ESTR1101 Discrete Mathematics
   CSCI1100/ESTR1101 Introduction to Financial Engineering
   CSCI2100/ESTR2100 Financial Technology Practicum
   SEEM3550/ESTR3505 Financial Technology Practicum
   SEEM3550/ESTR3506 Investment Science
4 Elective Courses 14
   ACCT2111 Introductory Financial Accounting
   ASTR1101/ESTR1104 Foundation of Applied Deep Learning
   ASTR1101/ESTR1104 Foundation of Applied Deep Learning
   CSCI2100 Introduction to Python (2-unit)
   CSCI2100 Introduction to Programming (2-unit)
   CSCI2102 Introduction to Operating Systems
   CSCI2104/ESTR2104 Design and Analysis of Algorithms
   CSCI3130 Fundamentals of Machine Learning
   CSCI4190/ESTR4103 Distributed and Parallel Computing
   CSCI4340/ESTR4340 Introduction to Cloud Computing and Storage
   CSCI4400/ESTR4430 Data Communication and Computer Networks
   EREC3010/ESTR3010 Computer Networks
   ECON201 Basic Macroeconomics
   ENGG120 Engineering Internship (1-unit)
   FINA2101 International Finance
   FINA2101 Management of Financial Institutions
   FINA3701 Corporate Finance: Theory and Practice
   FINA3701 Risk Management and Insurance
   FINA4101 Security Analysis
   FTEC4001 Advanced Database Technologies
   FTEC4002 Behavioral Analytics
   FTEC4002 Data Mining for FinTech
   FTEC4002 Payment Systems and Cryptocurrency Technologies
   FTEC4002 Financial Informatics
   FTEC4006 Internet Finance
   FTEC4007 Introduction to Blockchain and Distributed Ledger Technology
   IERG4000/ESTR4000 Building Sustainable Internet-based Services
   IERG4210 Web Programming and Security
   MKTG4120 Quantitative Marketing
   SEEM3540 System Simulation
   SEEM3545/ESTR3502 Engineering Innovation and Entrepreneurship
   SEEM3570/ESTR3508 Stochastic Models
   SEEM3580 Risk Analysis for Financial Engineering
   SEEM4750/ESTR4750 Statistics Modeling and Analysis in Financial Engineering

Double Major Programme
Background
Department of Systems Engineering and Engineering Management together with the Faculty of Business offers Bachelor of Engineering in Financial Technology and Integrated BBA Programme Double Major Programme (DMP). The two major programmes have natural complementarities. While the FinTech major equips students with the technical knowledge in designing and implementing FinTech solutions, extensive trainings in various business areas in the BBA major can help students identify the most suitable areas to apply such solutions, realising full potentials of financial technology.

Study Plan and Graduation Requirements
The normative study period for the DMP is four years and students are required to complete a minimum of 90 units of major courses to fulfill the graduation requirements.

BEng + BBA

Admission
https://fintech.se.cuhk.edu.hk/double-major-programme/admission/